

Johnson Matthey is a world leader in advanced materials technology, applying the latest technical skills to add real value to precious metals and other specialised materials. The company is committed to profitable growth and increasing shareholder returns.

The group's principal activities are the manufacture of electronic materials; the production of advanced multilayer printed circuit boards and plastic laminate packages for semiconductors; the manufacture of catalysts and pollution control systems and pharmaceutical compounds; the refining, fabrication and marketing of precious metals and speciality chemicals; and the manufacture of decorative and specialised materials for the ceramic industries.

Johnson Matthey has continued to develop its technology for over 180 years, demonstrating the company's ability to maintain world leadership by adapting constantly to rapidly changing customer needs. Rigorous in its own environmental policies, many of Johnson Matthey's products have a beneficial impact on the environment.

Johnson Matthey has operations in 38 countries and employs 12,600 people. Its products are sold across the world to a wide range of advanced technology industries.

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# Financial Highlights

	1998	1997
	£ million	£ million
Total turnover	3,267.1	2,580.I
Operating profit*	139.2	116.3
Profit before taxation*	130.2	108.3

	pence	pence
Earnings per ordinary share*	44.3	36.0
Dividend per ordinary share	17.8	15.5

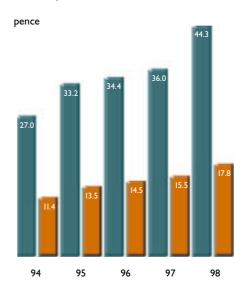
# £ million 130.2

Profit before tax and exceptional items

Earnings per share excluding exceptional items Dividend per share

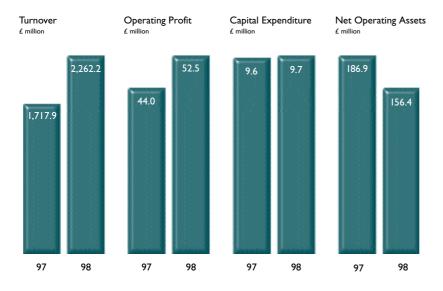
	£ million	£ million	
Capital expenditure	77.2	82.1	
Net borrowings	225.1	143.7	
Shareholders' funds	493.3	465.I	

<sup>\*</sup> Excluding exceptional items



# Operations Overview

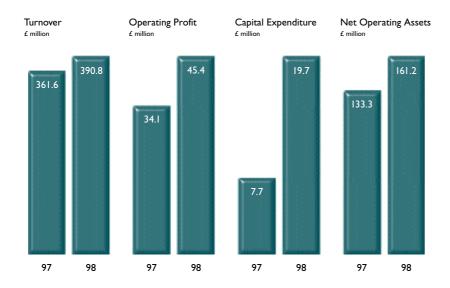
# Precious Metals



Johnson Matthey's precious metals operations, organised into three global businesses – Platinum, Gold and Chemicals.

Principal products and services are platinum marketing, platinum fabrication, gold and silver refining, bullion products, chemical products and platinum group metals refining.

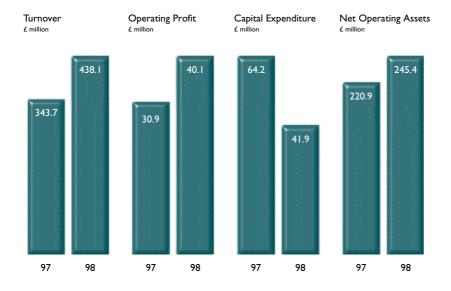
# Catalytic Systems



Johnson Matthey's global autocatalyst, diesel, environmental pollution control and pharmaceutical materials products businesses.

Principal products are autocatalysts, diesel catalysts, catalytic industrial pollution control systems, fuel cell catalysts and pharmaceutical materials.

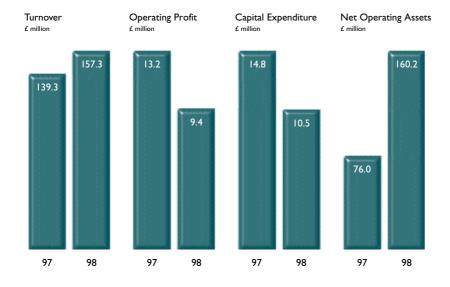
# Electronic Materials



Johnson Matthey's worldwide Wafer Fabrication Materials, Assembly Products, Laminate Products and Semiconductor Packages businesses.

Principal products are sputtering targets, high purity metals, die attach materials, thermal management materials, assembly services, multilayer printed circuit boards and plastic laminate packages.

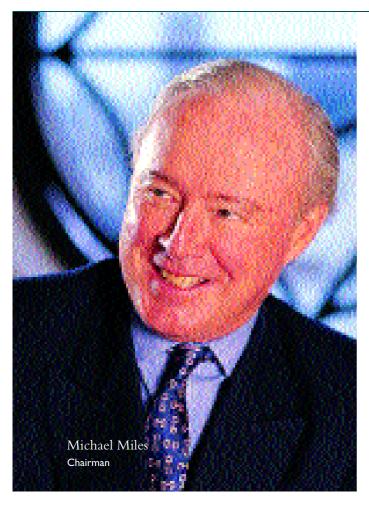
# Ceramic Materials



Johnson Matthey's Ceramic Materials business organised into two worldwide sectors — Decorative and Tile.

Principal products are colours and glazes,liquid precious metals, ceramic transfers,pigments and dispersions and opacifier grade zircon.

# Chairman's Statement



I am pleased that in my first statement to you as Chairman of Johnson Matthey, I am able on behalf of the Board to report to you a very good year with profits well up. The year has seen continued progress in the strategic development of Johnson Matthey as a world class company supplying advanced materials to global growth markets. During the year we entered the list of the world's top ten materials suppliers to the semiconductor industry; our autocatalyst business remains at the forefront of emission control technology for the automobile industry and we have further improved our leading positions in the world's precious metal industries.

## Board

I am honoured to have been appointed Chairman of your company with effect from 9th June 1998. Chris Clark was appointed as Chief Executive on the same day. Chris has had a long and distinguished career with Johnson Matthey since he joined the company in 1962. In July 1996 he was appointed Chief Operating Officer when he assumed responsibility for all of the group's commercial operations. There is no person better suited to lead the company in its next phase of development.

David Davies retired from the Board on 9th June 1998 after eight years as Chairman,including four as Chief Executive. David played a leading role in the development of Johnson Matthey during those years and on behalf of the Board I thank him for this and wish him continued success in his future career.

Geoffrey Wilson retired at the end of November after seven years on the Board,three of them as Deputy Chairman of the company. In this time Geoffrey provided wise counsel and invaluable support to the Board. I would like to take this opportunity to thank him for his contribution to the development of Johnson Matthey and wish him the very best in his retirement. Hugh Jenkins has succeeded Geoffrey as Chairman of the Audit Committee.

George Wells joined the Board as a non-executive director in March.George has lived and worked in the United States since 1960 and brings with him a lifetime of experience of the electronics industry. Our businesses in North America, particularly Electronic Materials, are central to Johnson Matthey's future growth and George's input will be most valuable.

## Investing in People and the Community

The importance of our employees to Johnson Matthey's future cannot be stressed too highly. On behalf of the Board I would like to thank all our employees for their hard work during what has been a successful year for the company.

It is vital that we recruit and develop the management talent of tomorrow. This is a key management responsibility and one that receives a great deal of attention throughout the company. We also seek to give managers as wide an experience of our operations as possible by moving them both between our divisions and around the world.

Johnson Matthey's products make a major contribution to improving the environment. Our autocatalysts are resulting in big reductions in the amount of harmful emissions from motor vehicles and are thus improving the air that we all breathe. We place great emphasis on the careful control of our manufacturing processes in order to meet our responsibilities to the environment and for health and safety. Our Environmental, Health and Safety policies are presented on page 34.

#### Conclusion

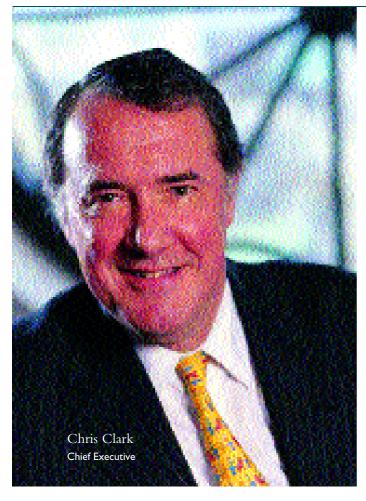
I look forward with confidence to another good year at Johnson Matthey. The company is in good shape, led by a first-class executive team. We shall all be focusing on the best interests of you; our shareholders.

Michael Miles OBE

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Chairman

# Chief Executive's Statement



I am very pleased to be reporting to you for the first time as Chief Executive of Johnson Matthey. We enjoyed an excellent year in 1997/98 achieving profit growth of 20%. That growth was broadly based. Three of our divisions were up on prior year benefiting from our continuing programme of investment in new technology and new products.

The one part of the group whose performance in the year was disappointing was our former joint venture Cookson Matthey Ceramics. Market conditions for that business remain challenging but we are making good progress on focusing the business on its core ceramic materials markets and significantly reducing its cost base. The benefits of this will show through in the coming year.

## Financial Results

Johnson Matthey earned profits before tax of £130.2 million in the year ended 31st March 1998,an increase of 20% over the previous year. Profits would have been £5.6 million higher but for the effect of adverse foreign exchange translation. Earnings per share excluding exceptionals rose by 23% to 44.3 pence.

Our cash flow for the year was strong. Cash flow from operations was up 26% at £156.4 million and free cash flow improved to £28.8 million.

The Board is recommending to shareholders a final dividend of 12.6 pence (to be paid as a Foreign Income Dividend) making a total for the year of 17.8 pence, an increase of 15%.

#### **Operations**

Precious Metals Division (PMD), operating profits were up 19% at £52.5 million. Management took full advantage of favourable market conditions. The division's Platinum, Gold and Chemicals businesses all performed well. Platinum benefited from good trading income, resulting from strong demand for all the platinum group metals. Sales of fabricated products and chemicals were strong. The Gold business had an excellent year with the financial turmoil in Asia resulting in a substantial increase in gold refining activity.

Catalytic Systems Division (CSD) operating profits were up 33% at £45.4 million benefiting from strong sales by our customers, increased market share and expansion into new markets. A new facility in Argentina was opened at the end of March which will supply the Mercosur free trade region of South America. Work has begun on a new catalyst coating plant in India that will service the country's rapidly growing market for both car and motorcycle catalysts.

Our Pharmaceutical Materials business, which is included in CSD, had a tremendous year with profits up 46% due mainly to the introduction of a highly successful new product, methylphenidate. Sales have risen rapidly and with other new products we are increasing manufacturing capacity to meet future demand.

Electronic Materials Division (EMD), which has been the major focus of our investment in recent years, delivered a 30% increase in profits to £40.1 million. Our new semiconductor packages facility at Chippewa Falls is now producing 1.5 million units per month. Elsewhere in the division we have purchased and equipped a new facility to make thermal management products and acquired an additional facility to manufacture printed circuit boards. Our titanium business recovered very well from the downturn in the DRAM market last year and we continue to increase our share of the worldwide sputtering target market.

Ceramic Materials Division – Cookson Matthey Ceramics for the first ten months – had a very poor year, with profits down 29% at £9.4 million in difficult market conditions. It became clear, both to us and our partner, that the joint venture had reached the end of its useful life and that the business would fare better under single ownership. We acquired the other half of the business in February 1998 and have already made substantial progress in reducing the cost base and selling off peripheral businesses.

## Outlook

Precious Metals Division continues to benefit from increasing demand for platinum group metals. All three of the division's sectors are expected to see further growth.

Catalytic Systems should achieve growth through the introduction of new products and geographic expansion into emerging markets. The division will work closely with its customers to provide world leading technology at competitive prices. The prospects for Pharmaceutical Materials are exciting and the year will see continued expansion of our facilities to accommodate the growth of our controlled substances business.

Our programme to rationalise and re-focus Ceramic Materials Division on its core activities is well under way. We bought the business at a good price and are confident that we can restore it to a satisfactory level of profitability.

In Electronic Materials, the industry outlook for the first half of the year has softened. The financial crisis in Asia is undoubtedly having some knock on effect and the weakness of local currencies, especially the Japanese yen, is bringing competitive pressures. Nevertheless EMD is expected to show continued growth with a good contribution from Semiconductor Packages.

Overall the outlook for 1998/99 is positive, with Johnson Matthey well placed at the forefront of many key and exciting technologies.

Chris Clark

Chief Executive

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# Financial Review

#### Review of Results

Johnson Matthey earned profits before tax (excluding exceptional items) of £130.2 million in the year to 31st March 1998, an increase of 20% over the previous year. Turnover rose by 27% while operating profit was up 20% at £139.2 million. The growth in operating profit was achieved despite an adverse exchange translation effect of £5.6 million.

Earnings per share excluding exceptionals rose by 23% to 44.3 pence. Including exceptionals earnings per share rose by 34% to 48.2 pence.

Net cash flow from operating activities increased by 26% to £156.4million. Free cash flow improved to £28.8million.

The Board is proposing a final dividend of 12.6 pence per share to give a total dividend for the year of 17.8 pence, an increase of 15% over last year. The recommended dividend is covered 2.5 times by earnings excluding exceptionals.

## **Operations**

Precious Metals Division (PMD) increased its operating profit by 19% to £52.5 million. Sales were 32% up at £2,262 million. All three of the division's sectors (Platinum, Gold and Chemicals) were well ahead of the previous year.

The Platinum sector benefited from favourable market conditions and good growth in fabricated metal products. The Gold businesses were well ahead despite the weak gold price. Sales rose by over 80% in Asia reflecting high levels of activity following the economic crisis in the region. The division's Chemicals business, which now accounts for over one third of PMD's profits, achieved very good growth. The upgraded platinum metals refinery in the UK achieved a significant increase in refining revenues. Precious metal salts and catalogue sales were also well up on the previous year.

Catalytic Systems Division (CSD) increased its operating profit by 33% to £45.4 million with an 8% increase in sales to £390.8 million. Unit sales of autocatalysts grew by 7% in Europe, slightly ahead of overall growth in the market.North American unit sales rose by 10%, well ahead of the overall market, reflecting continued growth in sales of light trucks which use more catalysts per vehicle than cars and are a market sector where our major customers are strong.New high performance catalysts were introduced helping to increase market share and protect margins while profitability benefited from continued cost control.

Pharmaceutical Materials continues to be the most rapidly growing part of CSD with 46% growth in operating profit. In September we announced that Johnson Matthey and Schein Pharmaceutical, Inc. had received final US Food and Drug Administration approvals to manufacture and market methylphenidate. That product was successfully launched in October and sales have grown strongly since then. Sales of other pharmaceuticals have also continued to grow and there are a number of new products in the pipeline. Manufacturing capacity has been expanded and additional new capacity will come on stream this year to meet increased demand.

## **Group Results Summary**

•		•	
	1998	1997	%
£r	nillion £	million	Inc.
Precious Metals	52.5	44.0	+19
Catalytic Systems	45.4	34.1	+33
Electronic Materials	40.I	30.9	+30
Ceramic Materials	9.4	13.2	-29
Corporate	(9.7)	(9.5)	
Operatingprofit-continuing	137.7	112.7	+22
Discontinued operations	1.5	3.6	
Operating profit*	139.2	116.3	+20
Interest	(9.0)	(8.0)	
Profit before tax*	130.2	108.3	+20

+23
+34
+15

\*Excluding exceptional items and ACTsaving on FIDs

Electronic Materials Division (EMD) increased its operating profit by 30% to £40.1 million. Sales increased by 27% to £438.1 million. The new semiconductor packages facility at Chippewa Falls in Wisconsin successfully completed its production ramp up and is now achieving unit sales of 1.5 million a month. The largest contributor to EMD's profit growth was Wafer Fabrication Materials which enjoyed a significant recovery in high purity titanium sales following last year's fall in demand from DRAM producers. Johnson Matthey also continued to increase its share of the growing worldwide market for sputtering targets. The Assembly Products sector recovered well from the anticipated loss of sales following the rapid transition from ceramic to plastic laminate packages. A range of new thermal management products was successfully introduced during the year which enabled the sector to match last year's results. Laminate Products, the ACI multilayer printed circuit board business, suffered some margin pressure from Asian competitors in the second half of the year and ended the year in line with the previous year's result.

Ceramic Materials Division (CMD) was formed in early February 1998 when Johnson Matthey purchased Cookson Group's 50% stake in Cookson Matthey Ceramics. Johnson Matthey's share of the operating profit for CMD's continuing businesses fell by 29% to £9.4 million. Johnson Matthey's share of CMD's sales increased by 13% as a result of acquiring 100% ownership for the last two months of the year. Underlying sales fell by 3%. The division experienced difficult trading conditions in the financial year and was particularly affected by the strength of sterling which reduced margins on export sales and led to destocking by some of CMD's principal customers in the UK. Following the acquisition we have introduced a major cost reduction programme and have divested peripheral businesses including the Perlite and German Minerals businesses (Otavi Minen AG) and the UK Minerals businesses.

#### **Exceptional Items**

An exceptional provision of £4.9 million is included in operating profit for restructuring CMD following the acquisition of Cookson Group's 50% stake in February 1998. Also included is a £3.1 million charge arising from several rationalisation programmes comprising the group's share of the £2.6 million cost to rationalise the Decorative sector of CMD prior to acquisition, £1.4 million for PMD to reduce costs in a number of businesses and £0.4 million for CSD to transfer UK autocatalyst production to Brussels. These exceptional costs have been partly offset by a £3.5 million exceptional profit on the sale of shares in Ballard Power Systems, Inc.

Johnson Matthey sold part of its holding in AnorMEDInc. in the year and reduced its overall investment in the company from 40% to 25%. The disposal generated an exceptional profit of £2.6 million. In addition the sale of Otavi Minen AG generated an exceptional gain of £1.8 million. Overall, exceptional items gave rise to a small charge of £0.1 million before taxation.

The group achieved a tax saving of £8.7 million by paying dividends as Foreign Income Dividends (FIDs). This credit has also been treated as exceptional.

On a post-tax basis exceptional items amounted to a net credit of £8.6 million.

#### Operating Profit



North America 57% Europe 32% Rest of the World 11%

## Employee Numbers



North America 59% Europe 30% Rest of the World 11%

# Financial Review



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#### Operating Profit at 1996/97 Exchange Rates % Inc. £ million on 1997 Precious Metals 53.8 +22 Catalytic Systems +37 46.7 +35 Electronic Materials 41.7 Ceramic Materials 10.9 -17 Corporate Costs (9.8)Operatingprofit-continuing 143.3 +27 Discontinued operations 1.5 144.8 +25 Operating profit\* \*Excluding exceptional items

#### **Exchange Rates**

Adverse exchange rates had a significant impact on Johnson Matthey's results for the year. Exchange translation reduced profits by £5.6 million. Nearly 60% of Johnson Matthey's profits are earned in North America. The average rate for the US dollar was 1.64, compared with 1.59 last year, which accounted for £2.9 million of the translation effect. In addition, the strength of sterling reduced margins in the group's UK based businesses, particularly CMD.

#### Interest and Hedging

The group's interest charge rose by £1.0 million as a result of increased borrowing costs for precious metals and higher borrowings in the last few weeks of the year following acquisition of 100% ownership of CMD.

Following the sharp rise in platinum and palladium interest rates in the first quarter of the year, it was no longer possible to hedge the group's stocks of these metals by covering forward or leasing on a cost-effective basis. The group is now carrying the majority of its platinum and palladium stocks unhedged. Prices of these metals strengthened towards the end of the financial year. At the year end the market value of the group's stocks was well above cost. Given the volatility of the prices of these metals we have not recognised the gain in this year's accounts and the unhedged precious metal stocks are shown at cost in the balance sheet.

#### **Taxation**

Johnson Matthey paid its final dividend for 1996/97 and its interim dividend for 1997/98 during the year as FIDs which will enable the group to obtain a refund of £8.7million of Advance Corporation Tax. We intend to pay the proposed final dividend for 1997/98 also as a FID which should give rise to a further tax saving of £6.8million.

Even excluding the tax saving on the FIDs, Johnson Matthey's average tax rate fell slightly to 26%. The group benefited from an agreement between the tax authorities in the US and in the UK to roll-back licensing royalties on autocatalyst technology for prior years.

#### Investment

The group invested £77.2million on capital expenditure (including two months of CMD) which was 1.7 times depreciation. Several major projects were completed in the year. In CSD our new autocatalyst facility in Argentina, a joint venture with Magneti Marelli S.p.A., went into production in February. In Pharmaceutical Materials, the first stage of our major expansion programme at West Deptford in the US was completed to meet the growing demand for organic pharmaceuticals. In EMD the semiconductor packages facility at Chippewa Falls was fully equipped and ramped up to volume production, and a new facility near Spokane was commissioned to manufacture thermal management products for the semiconductor industry.

In December 1997, following the devaluation of the Malaysian Ringgit, Johnson Matthey took theopportunity to purchase the 30% stake of one of its partners in the Malaysian autocatalyst joint venture for £0.8million, which took the group's holding in the venture to 80%.

In January 1998 Johnson Matthey acquired the printed circuit board operations of Universal Circuits Inc. located in Buffalo, Minnesota, for £6.4million. The business had assets of £3.9 million and the acquisition resulted in goodwill of £2.5million.

On 6th February 1998 the group paid £65 million for the outstanding 50% of Cookson Matthey Ceramics and assumed responsibility for all of the company's bank borrowings (all short term) which totalled £71.7million net. The acquisition gave rise to goodwill of £11.5 million after writing down assets relating to previously shared sites, which CMD is now vacating, and adjusting for accounting differences.

On 31st March 1998 Johnson Matthey sold its 87.6% share of Otavi Minen AG for net proceeds of £16.6million.

We continue to seek a minimum pre-tax return on assets (ROA) for all our businesses of 20%. The target is based on operating profit divided by average net operating assets including goodwill. Precious Metals Division and Catalytic Systems Division both improved their ROAs in the year and were comfortably above the group target. EMD also improved its return but is still below the group target. Overall, the group improved its ROA to 16.8% in 1998 (see page 71).

#### Cash Flow

Net cash flow from operating activities rose by 26% to £156.4 million as a result of higher profits and continued tight control of working capital. Free cash flow (net cash flow from operating activities after interest, tax, dividends and capital expenditure) improved to £28.8 million.

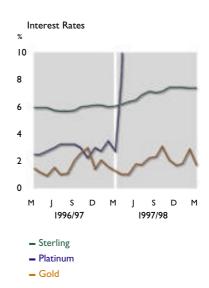
Expenditure on acquisitions less proceeds of divestments amounted to £44.1 million which led to an overall net cash outflow of £15.3 million. Net borrowings, which include the loans acquired with CMD, rose to £225.1 million.

# Capital Structure and Funding

Johnson Matthey's balance sheet remains strong. The group's gearing (% net borrowings: shareholders' funds and minority interests) at the end of the year was 45%, while interest cover for the year (operating profit: net interest) remained at 15 times.

In 1997 the Board took the decision to sell the group's former head office at 78 Hatton Garden. The property had been fully let to other tenants and was revalued to current market value in September 1997. It was sold in April 1998 for £21 million to Prestbury Group PLC. The price represented a gain compared with the historic cost of £6.4 million.

During the year Johnson Matthey also completed the triennial revaluation of its main UK pension fund (see note 10a on page 54). The revaluation resulted in a largely unchanged actuarial surplus and a reduction in the annual credit of £0.7 million.



# Financial Review

The group's net borrowings are largely in the form of foreign currency loans,primarily US dollars,to fund overseas operations. We have over £300 million of facilities from a group of high quality international banks with maturities of up to five years. These facilities have been separately negotiated with each bank and are not linked.

At 31st March 1998 just over one quarter of the group's net borrowings were represented by long term fixed rate US dollar bonds which carry an interest coupon of 6.36%.

# Treasury Hedging

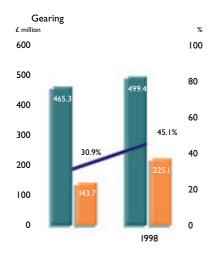
Fluctuations in currency exchange rates and precious metal prices can have a significant impact on Johnson Matthey's financial results. Our policy for all our manufacturing businesses is to limit this exposure by hedging wherever possible against future price changes where such hedging can be done at acceptable cost. The group does not take speculative foreign exchange positions or material exposures on metal trading and our Treasury is run as a service centre not a profit centre.

In line with our policy, we hedge most of our foreign currency sales revenues into local currency. Overseas earnings in foreign currency have not been hedged. All the group's stocks of gold and silver are fully hedged by leasing or forward sales. Currently the majority of the group's platinum group metal stocks are unhedged because of the lack of liquidity in the platinum metal markets.

#### Millennium and Euro Compliance

In September 1996, following a detailed review, we established a programme to ensure that our business systems are millennium compliant. An incentive scheme was introduced to secure retention of key IT staff. Significant progress has been made against the plan with all critical financial, commercial, manufacturing and process control systems due to be compliant by the end of the year. The programme also includes embedded systems typically found in analytical equipment and other technical applications which are critical to customer service and production operations.

The group makes extensive use of current packaged software from JD Edwards for the key business applications worldwide. The current software release is millennium compliant and this has considerably reduced the scale of the problem within the group. Other non-compliant applications have been subject to a rigorous analysis of the repair or replace options. Where cost effective, the opportunity has been taken to bring forward normal replacement projects such that additional business benefits are achieved. A number of specific custom designed applications have been repaired with enhancements added where appropriate. The costs incurred fall evenly over the two year period to the end of the 1998/99 financial year. Costs are capitalised where systems are enhanced. Such projects have been included in the group's capital expenditure plans and amount to £3 million over the two year period of the programme. Modifications to existing systems which bring no additional business benefit are expensed, although significant incremental expenditure in this category is not anticipated.



- Shareholders' funds and minorities
- Net borrowing
- Gearing

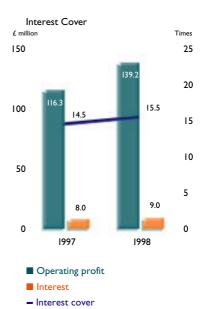
The group is co-operating with major customers seeking assurances on our millennium compliance programme. Our businesses have also assessed supply chain issues and are in contact with key suppliers so as to avoid potential external influence on our activities.

During the year we have undertaken an internal awareness programme on the implications of the Euro and the timetable for introduction. General policy guidelines have been established. Given that many of our European businesses are in countries that will be included in the first wave, a range of projects has been established at a local level to ensure compliance with statutory and fiscal requirements and to meet the needs of our customers. There are implications across a range of functional disciplines and alternative ways of doing business which may present opportunities. However at this stage the overall impact on the business is not considered significant. Compliance costs will be expensed within the appropriate accounting period but are not material.

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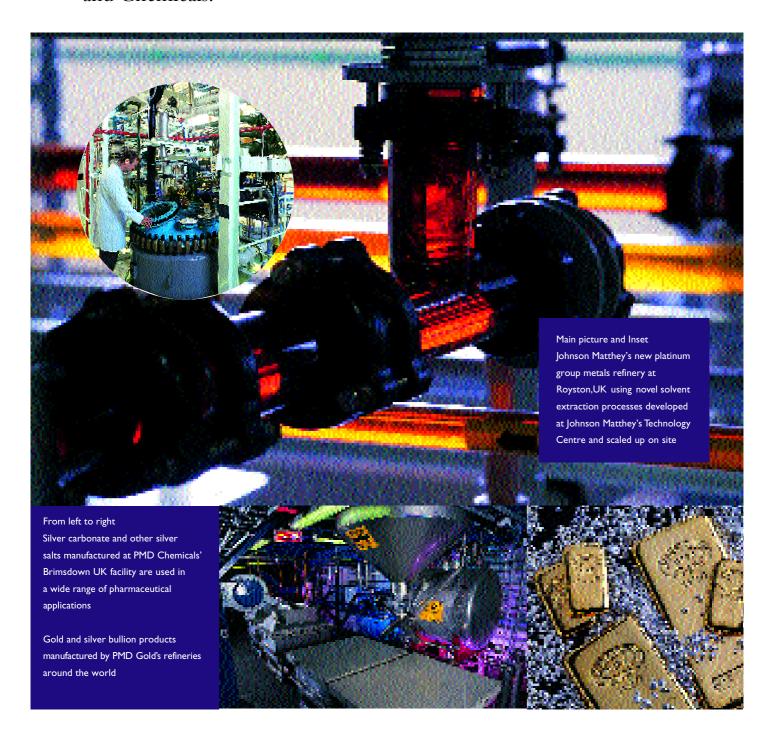
John Sheldrick

Group Finance Director



# Precious Metals

Precious Metals Division had an outstanding year with operating profit 19% up on 1996/97 at £52.5 million. The division benefited from favourable market conditions, good demand for gold refining and continued growth in its Chemicals business. The Precious Metals Division is organised into three global businesses: Platinum, Gold and Chemicals.



#### Platinum

Johnson Matthey's Platinum operations had an excellent year with its recently combined trading, marketing and manufacturing businesses achieving record profits.

Trading benefited from favourable market conditions resulting from suspension of Russian platinum and palladium supplies at the beginning of 1997. Russia supplies around 70% of the world's palladium and 20% of its platinum. The issue, a bureaucratic wrangle over responsibility for government controlled sales and distribution of precious metals, was not resolved until mid-year. In the interim, market stocks were drawn down and platinum and palladium prices and lease rates rose sharply. The effect was accentuated by strong demand for platinum for industry and jewellery, and for palladium for autocatalysts and electronics.

The price of platinum rose to a seven year high of \$500/oz in June 1997 but receded when Russian shipments resumed. Palladium fixed at an 18 year high of \$245.50/oz in early August before falling back to around \$200/oz for the remainder of the calendar year. Both prices recovered strongly in early 1998 and remain robust as the market experiences renewed delays in Russian shipments. The average price of platinum in 1997/98 was \$400/oz, a rise of 4% over the prior year. Palladium,more significantly affected by the Russian situation, averaged \$204/oz, an increase of 59% over 1996/97. The year saw significant growth in platinum jewellery demand in China and North America and increasing automotive investment in commercialisation of platinum-containing fuel cells for transport. In December 1997 Ford Motor Company announced it would join the Ballard / Daimler Benz alliance to develop fuel cell engines.

Platinum's manufacturing operations performed well in the year. Demand for industrial products from European and North American markets was good and the businesses were only marginally affected by the Asian slowdown.

## Gold

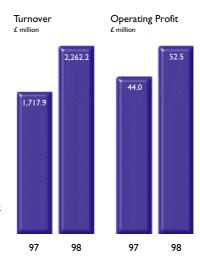
Our Gold and Silver businesses had a good year with the financial turmoil in Asia resulting in a substantial increase in gold refining activity. Trading conditions were favourable, availability of material for refining was high and demand for both metals continued the growth of recent years. Although gold prices eased in 1997 primary mine output grew to around 2,500 tonnes. Secondary supplies were high as a result of selling from the troubled economies in South East Asia. Demand for gold for fabrication increased to 3,890 tonnes in 1997. Liberalisation of the Indian market added extra stimulus to business.

During the year we further consolidated our position as the world's largest gold refiner. Our refineries, in Salt Lake City (USA), Brampton (Canada), Royston (UK), Thomastown (Australia) and Hong Kong, experienced high levels of activity. We remain the leading gold refiner in all the regions that we serve.

The outlook is good and we will maintain our market leading position by continually improving customer service and investing in new and improved processes.

#### Chemicals

The Chemicals business achieved very satisfactory revenues and profits in both its North American and European operations. Product sales were very healthy and our refining business put in a strong performance. This was helped by bringing our new UK platinum metals refinery on stream. Supported catalysts achieved excellent sales in the pharmaceuticals, agrochemicals and fine chemicals sectors. Homogeneous catalyst sales were boosted by demand for hydroformylation catalysts and we saw encouraging growth in other sectors. Our research chemicals and catalogue sales business continued to do well, particularly in North America. The European catalogue business will be further enhanced by a marketing agreement signed with E. Merck during the year. Our gas sensor electrode business, which was embryonic a year ago, has grown rapidly due to major expansion of the domestic carbon monoxide detector market.



Research and Development During the year PMD established a New Products Team charged with bringing innovative new products to the marketplace. Consisting of representatives from the Johnson Matthey Technology Centre (IMTC) and from divisional development and marketing functions, the team ensures that research and development projects are focused on customer requirements and that they are transferred rapidly from R&D into production. Current projects include the development and scale up of new red absorbing phthalocyanine dyes (for application in more efficient,lower cost solar cells) and applying the techniques of combinatorial chemistry to the rapid screening and evaluation of novel catalysts (in order to select those most effective in customers' processes).

The new pgm refinery at Royston is based on novel solvent extraction processes developed at JMTC and scaled up on the site.

Work continues on gas sensor electrodes, the market for which is burgeoning largely due to strong demand for domestic carbon monoxide sensors. The best technology available for this application is based on a miniature electrochemical cell for which Johnson Matthey is now a major supplier of electrodes. Similar cells are also used in industry for detection of a wide range of other gases.

# Process Catalysts

Johnson Matthey platinum group metal process catalysts are widely used within the chemical industry to increase the speed and cost efficiency of manufacturing products for sectors as diverse as agriculture, healthcare, and food and drink. The fundamental property of a catalyst is that it can bring about a chemical reaction at lower temperatures and pressures without itself changing. Platinum group metal catalysts are particularly effective because of their activity and selectivity and also for the comparative ease with which they can be reclaimed and recycled at the end of the process.

#### Background picture

Platinum group metal process catalysts are widely used in manufacturing products for the agricultural sector that greatly enhance the efficiency of food production around the world



The effectiveness of homogeneous catalysts is such that concentrations as low as 100 parts per million in the production mix will produce sufficient reaction to manufacture large volumes of an end product



Research by Johnson Matthey into catalysts for fuel cells has led to the development of gas diffusion electrodes for carbon monoxide sensors

However, the design of a platinum group metal catalyst requires high levels of expertise to ensure that it promotes exactly the right reaction. Johnson Matthey has been involved in this field since the mid 1960s and is now widely recognised for its leadership in the development of both homogeneous catalysts, which are in the same state as reactant materials, and heterogeneous catalysts, which remain in a separate state from the reactants. Today, from its principal plants in Royston, England and West Deptford, USA, the company provides a specialist catalyst research and manufacturing service to chemical industry customers worldwide.

At the heart of the service is Johnson Matthey's ability to work in partnership with its customers and develop catalysts which exploit innovative production processes to help them establish a competitive edge in the market place. Such is the commitment to this approach that Johnson Matthey has pioneered robotic testing and screening techniques which significantly reduce development schedules and ultimately speed time to market for the finished product.

More and more chemical production companies are switching to the use of platinum group metal catalysts. Recognising the opportunity, Johnson Matthey is investing in a new manufacturing plant at its Royston site to provide additional capacity to service this growing market.

# Catalytic Systems

Catalytic Systems Division achieved operating profits of  $\pounds$ ,45.4 million, 33% up on last year. All three of the division's businesses, Autocatalysts, Environmental Products and Pharmaceutical Materials, performed well. With effect from April 1998, CSD assumed responsibility for the commercialisation of Fuel Cells. Many of the division's major automotive customers now have active fuel cell development programmes.



#### Autocatalysts

The Autocatalyst business is organised into two major regions, Europe and North America, with a technical centre in Japan dedicated to supporting Japanese customers worldwide. The European Region includes operations in Australia and South Africa, which primarily supply the European market, and is also responsible for our fledgling businesses in Argentina and Malaysia. In Europe, vehicle sales grew 5% in 1997, largely due to government incentives in Italy. Elsewhere in Europe vehicle sales were very similar to 1996 levels. Unit sales advanced 7% a little ahead of the market but price pressure and the impact of the strong pound on materials costs, which are passed to customers, restricted turnover growth to 2%. Profitability benefited from rigorous cost control, assisted by the strength of sterling against the currencies of our main manufacturing operations in Belgium and South Africa.

Our new autocatalyst plant in Argentina commenced production in February 1998. We have also established a sales and logistics infrastructure in Brazil to give the new factory access to the whole Mercosur trading bloc. In December the company increased to 80% its shareholding in Johnson Matthey HICOM Sdn.Bhd.,its autocatalyst manufacturing joint venture in Malaysia. During the year work started on a catalyst coating plant in India which will serve the rapidly growing local market for car and motorcycle catalysts.

The North American Region benefited from another strong year as US vehicle sales in 1997 again exceeded 15 million units. Sales of light duty trucks, where we have a high market share, grew by 6%, mainly at the expense of car sales which declined by 2%. In response to the powerful effect that tighter emissions limits are having on the US market we developed high technology products, often with reduced precious metal loadings, that provide cost effective solutions for customers. This has enabled growth in market share whilst protecting margins.

## **Environmental Products**

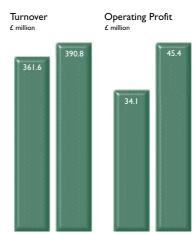
Major contracts for stationary source catalysts together with continuing success in heavy duty diesel catalysts in both the US and Europe resulted in an excellent year. In the UK, sales of our Continuously Regenerating Trap have benefited from the government's budget measures to support clean diesel fuel and the retrofitting of particulate control technology for heavy duty diesels. In the USA the Environmental Protection Agency certified our Cam Converter Technology for the urban bus retrofit market.

## Pharmaceutical Materials

Pharmaceutical Materials manufactures a broad range of high value active ingredients for the pharmaceutical industry. These include generic and branded drugs highly regulated by the US Food and Drug Administration (FDA).

1997/98 saw strong growth in organic pharmaceuticals, including controlled substances such as the narcotic analgesics fentanyl, sufentanil and hydromorphone. Leading this growth was an important new product, methylphenidate, which is used for treating Attention Deficit Disorder (ADD) particularly in hyperactive children. Johnson Matthey has had a long collaboration with Schein Pharmaceutical, Inc., a major US generic drug company, in the development of this product. Schein received FDA approval to manufacture and market their generic form of methylphenidate, containing the active ingredient supplied by Johnson Matthey, in August 1997. Sales commenced in the fourth quarter of calendar 1997 and made a significant contribution to revenues in 1997/98. Overall sales of organic pharmaceuticals were 79% up on last year.

Growth in fabrication business has been matched by a programme of investment in manufacturing capacity which has increased by 200% over the last two years. Pharmaceutical Materials continues investing to support its healthy product development pipeline. Sales and royalty income from carboplatin and cisplatin, the major platinum based anti-cancer drugs, remain strong, although legal challenges to the extension of the US cisplatin patent have been filed and may impact future royalties.



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98

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Research and Development
Research in Catalytic Systems Division is
focused on providing customers with world
leading technology at competitive prices.
The division's worldwide network
of technology centres works closely with
the Johnson Matthey Technology Centre.
(JMTC) to develop novel catalysts with
improved performance and durability that
are capable of meeting ULEV standards,

One of the most exciting developments in the year was the demonstration to customers of Johnson Matthey's innovative ATLAS (Ambient Temperature Light-Off Aftertreatment System), designed to remove emissions at cold start.ATLAS is the culmination of an 18 month collaboration between scientists based at Devon in the USA and at JMTC. Several car companies are now testing this novel system. Lean burn engine technology is being introduced by the car companies to meet the twin objectives of improved fuel economy and reduced CO2 emissions. Catalysts for this type of engine are problematic because they are required to remove NOx under lean conditions. Johnson Matthey is examining various technology options for lean NOx catalysts including NOx traps and selective reduction. This year we have made significant progress in the development of platinum-based catalysts to meet Stage 4 European legislation for emissions from gasoline engines.

# Autocatalyst Technology

With more than a third of the world market for autocatalysts, a global network of production centres, and an unmatched investment in research, Johnson Matthey is a major contributor in the drive to make internal combustion engines as clean and environmentally friendly as they can possibly be. The achievement of such a goal cannot and does not happen in isolation. Johnson Matthey autocatalyst research teams work in close co-operation with engine designers and engine management companies from the earliest stages of vehicle development.

Main picture

For more than 20 years catalytic converters have been the most effective way to tackle pollution from all types of petrol and diesel vehicles

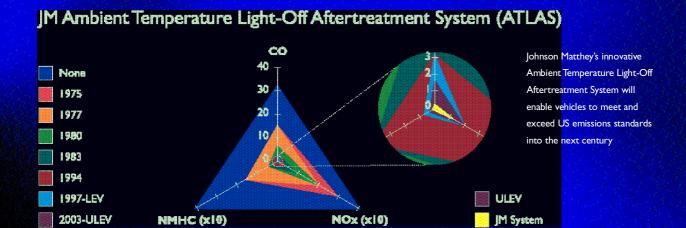


Sports utility vehicles have been gaining popularity in the United States over the last few years. These tend to have more catalysts per vehicle than cars





Evaluating catalysts on a transient engine dynamometer using the latest computer control technology at Johnson Matthey's Devon, USA facility



The combined objective is to create total systems which not only meet and exceed environmental standards but do so cost effectively without reducing performance.

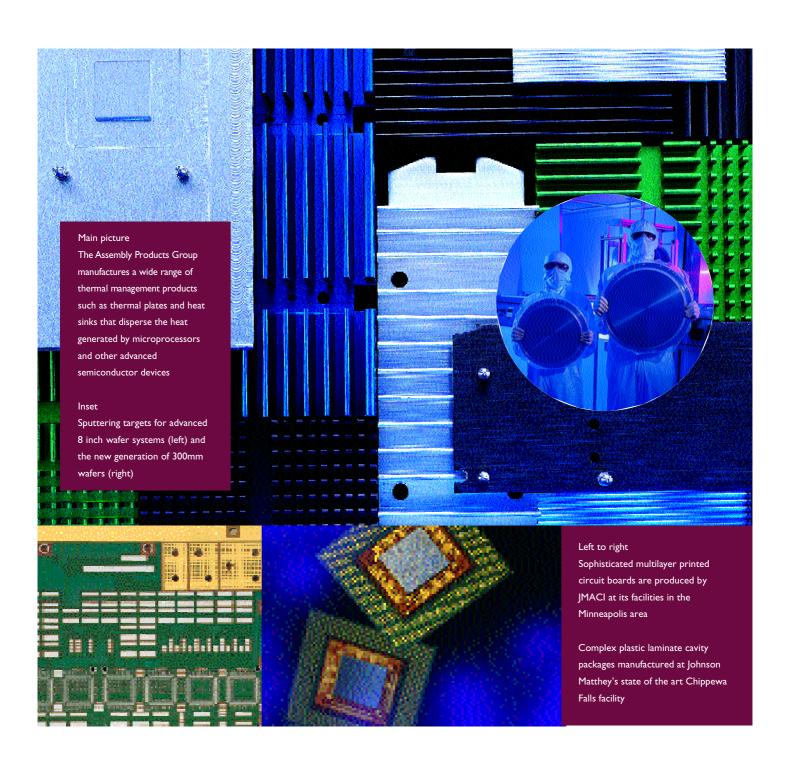
Whilst automotive production is a global business with many apparently identical vehicles being sold across national boundaries, the pace of change towards lower emission levels varies widely from country to country, as do the technical challenges associated with them. In future, some markets may emphasise the new generation of lean burn direct injection gasoline engines, whilst in others the focus will be on making diesel engines cleaner so that greater advantage can be taken of their potential for fuel economy.

Recognising such diversity, and the need to maintain close contact with customers at a local level, Johnson Matthey has established autocatalyst research and manufacturing facilities in all the major automotive markets. From these centres, through a number of joint projects, the company is working on the development of the world's most advanced autocatalyst systems for the very latest engine technologies, be they lean burn gasoline or light or heavy duty advanced diesels.

Johnson Matthey's expertise in catalysts and manufacturing quality is widely recognised and has established the company at the leading edge of autocatalyst innovation. Its ability to focus that expertise in partnership with vehicle manufacturers in turn provides the impetus from which to continue growing market share and revenue, whilst also securing business potential for many years ahead.

# Electronic Materials

Electronic Materials Division had a good year increasing its operating profit by 30% to  $\pounds$ 40.1 million. Growth was led by Wafer Fabrication Materials Group while the Semiconductor Packages Group, which has been the focus of considerable investment in recent years, made a contribution for the first time.



## Wafer Fabrication Materials Group

Wafer Fabrication Materials Group (WFMG) had an excellent year achieving strong growth in sales and profits despite only a modest expansion in the electronic materials market. The group increased its sputtering target market share, particularly in the USA, Taiwan and Korea and now has over 40% worldwide. This was achieved through technology leadership in advanced targets for 8 inch wafer systems, reduced lead times and a focus on customer service. New target plants are under construction in the UK and Taiwan.

The Alta Group saw strong growth following last year's collapse in the DRAM market and consolidated its position as the world's leading supplier of high purity titanium. During the year Alta's non-titanium materials portfolio expanded to account for 15% of revenues. WFMG is well positioned to meet the demands of emerging 300mm silicon wafer processing technology and has the capacity to provide key new materials, such as copper, tantalum and cobalt, for the next generation of targets.

## Assembly Products Group

Profits in Assembly Products Group were flat despite a faster than expected decline in die attach paste sales as customers moved from ceramic to plastic semiconductor packages. However, new low alpha lead and plastic die attach products came through in the second half of the year and a full recovery in this business is now under way.

Spokane had a very successful year driven by the launch of new aluminium based thermal management materials which disperse the heat generated by today's powerful microprocessors. During the year a new 106,000 square foot manufacturing facility for these products was established in Cheney, Washington (some 30 miles from Spokane). Johnson Matthey is one of the world's top three suppliers of thermal plates and heat sinks to the microelectronics industry.

## Laminate Products Group

Johnson Matthey Advanced Circuits,Inc. (JMACI) achieved continued sales growth in 1997/98 although profits were flat largely due to tough market conditions in the second half.

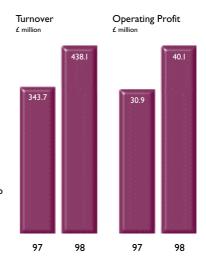
Telecommunications was the main growth driver with JMACI benefiting from rapid expansion in wireless communications,particularly in the USA,Mexico and Brazil.

The business has invested in a new 65,000 square foot manufacturing facility in Buffalo, Minnesota to serve growing demand, while major modifications are under way at the Hopkins and St. Louis Park plants to meet future capacity and technology needs of JMACI customers.

Major growth in hand-held electronics has fuelled demand for lighter, smaller and faster printed circuit boards (PCBs) which require high density interconnect technology. With its ability to produce boards with high layer counts, complex circuitry and a wide range of via interconnects between layers, JMACI is well positioned to become the number one US based supplier of high technology PCBs.

#### Semiconductor Packages Group

The Semiconductor Packages Group made good progress in 1997/98 and is the largest supplier of plastic laminate packages (PLPs) to the semiconductor industry outside Japan. The state of the art Chippewa Falls facility rapidly ramped up production of complex, ten layer, thermally enhanced, cavity packages and yields improved significantly. The group is a key PLP supplier to the world's largest microprocessor manufacturer and early in 1998/99 expects to increase market share by qualifying additional customers. As the industry continues to move toward smaller chips, the next generation of 'flip chip' packages will replace traditional wire bonded formats. This transition requires new technologies. Through its cross-licensing agreement with Kyocera Corporation for advanced high density build up technology, Johnson Matthey is ideally positioned to remain a market leader in PLPs. The group also maintained its leadership position in ultra high layer PCBs for supercomputers.



Research and Development EMD's research and development activities, which maintain the division at the leading edge of electronic materials technology, are carried out in facilities at Minneapolis.Spokane, San Diego and Fombell, USA and Naoetsu, Japan. Heat dissipation and transfer is a major challenge for both packaging and components in today's powerful electronic devices. The division has designed a number of novel solutions, including an innovative thermal interface material with oriented.high thermal conductivity fibres in a polymer matrix which is generating much customer interest. New methods of forming vias are being pioneered at our mass lamination products facility in Minneapolis for the manufacturing of the high density interconnect, multilayer PCBs needed to meet the challenges of speed, size and cost presented by new electronic products. Modelling techniques are widely used to optimise design and production methodologies for the new generation of 300mm sputtering targets.New chemical production methods have been developed for high purity cobalt,tantalum and copper aimed at future generations of sputtering applications.

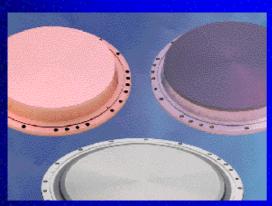
# Wafer Fabrication Materials

Sputtering targets and thin film deposition materials produced by the Johnson Matthey Wafer Fabrication Materials Group are essential to the production of the powerful semiconductor chips that are fuelling development within the microprocessor industry. Sputtering targets are used in the semiconductor chip manufacturing process to deposit ultra thin layers of metal onto silicon wafers. The quality of the sputtering targets and purity of the deposited materials are fundamental to the performance of the finished device.

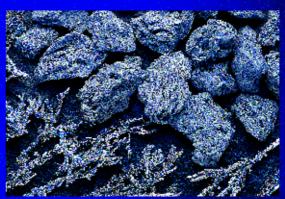
Main picture
Johnson Matthey's Wafer
Fabrication Materials Group has
established 'best in industry'
standards for sputtering target
technology and has around 40% of
the global sputtering target market



In addition to targets WFMG manufactures a range of consumable parts that are used within the reactor chamber of highly sophisticated sputtering machines



Copper, tantalum and cobalt targets for future generations of sputtering applications in the semiconductor industry



Titanium sponge and high purity titanium crystal manufactured by the Alta Group, the world's largest manufacturer of titanium for the semiconductor industry





The production of sputtering targets is monitored at each stage of the manufacturing process using state of the art process control technology at Johnson Matthey's facility in Spokane, USA

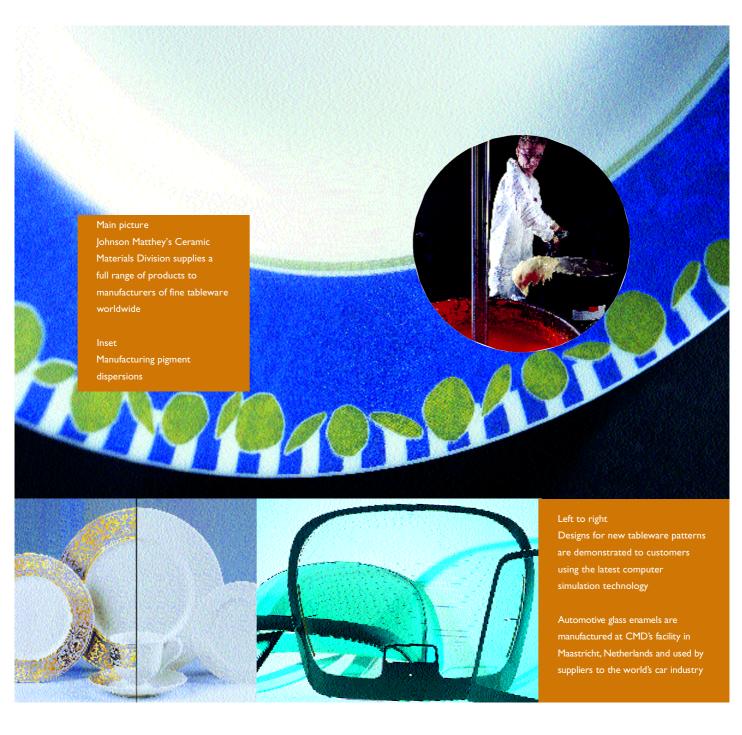
At its sites in North America, Asia and Europe, Johnson Matthey has established 'best in industry' standards for sputtering target technology and developed fully integrated refining and manufacturing facilities to produce the wide range of metal alloys required by customers. The technology used is so sophisticated that the thickness of the deposited layers can be controlled to be between 50 and 80 atoms.

Whilst the technology establishes Johnson Matthey at the leading edge of the industry, it is the company's focus on its worldwide customer base that maximises the sales growth potential. Today, Johnson Matthey has around 40% of the global sputtering target market and is the world's largest producer of electronic grade titanium for semiconductor devices.

Johnson Matthey Wafer Fabrication Materials can truly claim to be the only global company with a manufacturing and service capability in all the important local markets. Such a strategy places its expertise alongside that of customers and equipment manufacturers, and facilitates improved delivery of technical service and closer co-operation in joint development projects. Customers are assured of receiving the same high quality products anywhere in the world and also have the opportunity to add value into their supply chain by capitalising on Johnson Matthey's just in time delivery capability. With its emphasis on technical innovation, quality and service, Johnson Matthey is ideally positioned to partner the microelectronics industry and maintain growth and market leadership well into the next century.

# Ceramic Materials

Johnson Matthey's newly formed Ceramic Materials Division faced tough trading conditions and was hit by the strength of sterling during the year. Operating profits from the business were 29% down on last year at  $\pounds$ 9.4 million. However, disposal of peripheral businesses and rationalisation initiatives made good progress and prospects under our single ownership are encouraging.



The Ceramic Materials Division (CMD) was formed in early February 1998 when Johnson Matthey purchased Cookson Group's 50% stake in the former Cookson Matthey Ceramics joint venture. The results included in Johnson Matthey's accounts for the 1997/98 financial year therefore include 50% of the results for the period from 1st April 1997 to 5th February 1998 and 100% of the results for the period from 6th February 1998 to 31st March 1998. Trading conditions in CMD's principal markets were mixed during the year. It is not expected that substantial growth in the division's major markets is likely in the short term. Since establishing the division, management has been taking steps to focus the business on its core ceramic markets, reduce costs and improve returns. Following the acquisition the business was reorganised into two sectors; Decorative Products, which includes the Pigments business, and Tile Products, including zircon.



The Tile business performed impressively during the year under review, which reflects the benefits of the substantial investments made in this sector in the past three years. The first half of the year was particularly good, on the back of very strong sales to Asia. These sales did not persist into the second half to the same extent, but the business has compensated with sales into other emerging markets in Eastern Europe and the Middle East.

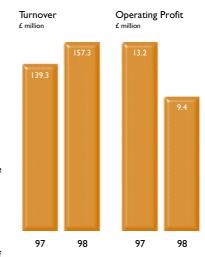
Margins in the Zircon business remained under pressure throughout the year, although there was a modest recovery from the lows reached in the second half of 1996/97. The focus of the business is upon achieving the lowest possible manufacturing cost.

#### Decorative

The Decorative sector has had a difficult year, primarily due to the strength of sterling, which affects both its own business and that of its principal tableware customers. This led to the need to cut costs to remain competitive and a provision of £2.6 million (Johnson Matthey's share £1.3 million) was taken during the year to reduce headcount in the business. The automotive glass enamels business, whose principal manufacturing facility is located in the Netherlands, had another strong year and is well placed to replicate its European success in a wider global arena in 1998/99 and beyond.

The Pigments business traded strongly in the first half, with encouraging growth in sales of transparent iron oxide pigments and in pigment dispersions for the paint and automotive industries. The second half was somewhat weaker, largely as a result of the difficulties caused to its Venezuelan facility by the overvaluation of the bolivar.

It was announced in late 1997 that a number of peripheral businesses were to be sold in order to improve focus upon the division's core ceramic markets. The sale of the group's 87.6% share in Otavi Minen AG, which comprised the Perlite business and the German Minerals processing operations, and the sale of the UK Minerals processing activities, have now been completed successfully. There are a number of cost saving opportunities resulting from the ending of the Cookson Matthey Ceramics joint venture, including the scaling down of the Head Office and Research functions. These actions have largely been implemented and provision has been made in these accounts for their completion.



Research and Development Research and development activities within the Ceramic Materials Division are targeted at the future needs of its customers and at optimising its manufacturing efficiency. Fundamental research for the newly formed division is being consolidated within the Johnson Matthey Technology Centre at Sonning Common, whilst the majority of CMD's applied research and development will remain with the appropriate business units at key European sites. Major areas of research include the development of new materials to support and expand the division's current product range. This involves investigating new stains and colours and new processing routes for the Tile, Decorative and Pigment businesses. CMD is also taking a fundamental look at decorative precious metals to see how their performance can be improved and to develop more environmentally friendly materials and formulations Other major research projects include new decal printing technology and improvements to the division's range of zircon opacification products.

# Tile

More than 3 billion square metres of tiles are sold each year in a global market worth at least £12 billion. Within that, Johnson Matthey has established an enviable position as one of the world's top three suppliers of glazes and other specialist materials essential for tile production. The depressed state of the European construction industry in recent years and the subsequent demand for greater cost competitiveness from suppliers led to major changes in tile manufacturing and the introduction of ever more sophisticated technology.

Main picture
Fashion plays an important role in
tile design. Tiles are increasingly
used to decorate homes
throughout the world



Johnson Matthey's innovative tile products enable manufacturers to create a wide range of effects



Computer aided design is used in the development of innovative new products to demonstrate the application of CMD's materials in the tile manufacturing process

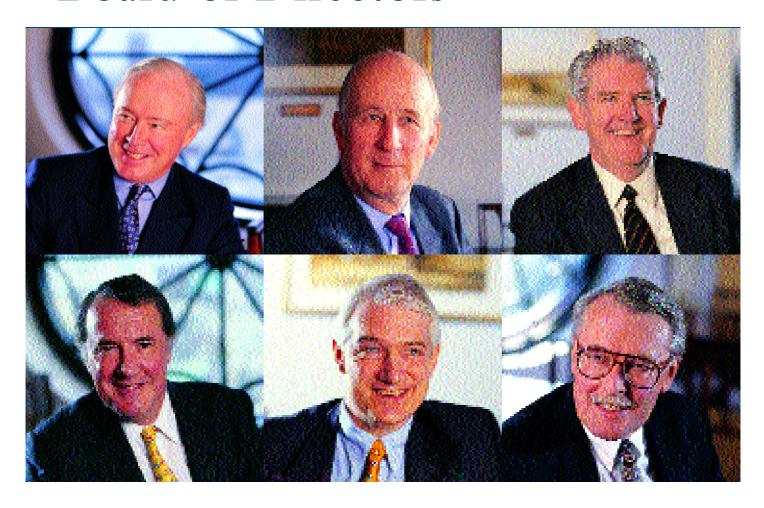
Johnson Matthey addressed this by establishing heavily automated facilities capable of producing high quality materials close to its customers' main manufacturing sites. With plants in Spain, Italy and Brazil, the group can now meet the needs of the mature European, Mediterranean and South American markets whilst also effectively serving the developing markets in Eastern Europe and South East Asia.

The other equally important market driver for tiles, and an area of constant opportunity for Johnson Matthey, is the rapidly changing face of interior design fashions. Through ongoing development programmes the division launches two collections of glazes and specialist materials every year. As a result, customers have the opportunity to refresh continually their products and create a tangible advantage in the market place.

This focus on customer needs is extended even further by Johnson Matthey seconding its tile technicians to work in customers' own laboratories. By forging close links of this nature, joint development projects can progress more efficiently and customers benefit from instant access to Johnson Matthey's expertise in manufacturing and quality control.

The market for tiles in residential, commercial and industrial applications is recovering and expanding every year. With its investment in automation, design and service, Johnson Matthey Ceramic Materials has established both the resources and a world leading reputation from which to continue its path of growth and profitability.

# Board of Directors



## H M P Miles OBE

Chairman Age 62; joined Johnson Matthey as a non-executive director in March 1990; appointed Chairman on 9th June 1998. Currently a director of ING Baring Holdings Limited and John Swire & Sons Limited and a non-executive director of BP plc, BICC plc and other companies. Previously Chairman of Cathay Pacific Airways and Swire Group Hong Kong. A, M

#### C R N Clark MIM

Chief Executive Age 56; joined Johnson Matthey in 1962; headed Johnson Matthey's platinum marketing operations before assuming responsibility for Catalytic Systems Division in 1988, and, additionally, Colour and Print in 1990. Appointed an executive director in March 1990 and Group Managing Director in September 1995. Became Chief Operating Officer in July 1996, and appointed Chief Executive on 9th June 1998.

## I G Thorburn MA FCA

Executive Director, Administration Age 57; joined Johnson Matthey in March 1982 as Group Financial Controller. Appointed Finance Director in August 1983 and Executive Director, Administration in May 1987. Company Secretary and Chairman of the Trustees of Johnson Matthey's UK pension schemes. Previously Finance Director, Yardley & Co Ltd.

#### I N Sheldrick mamsc fcma fct

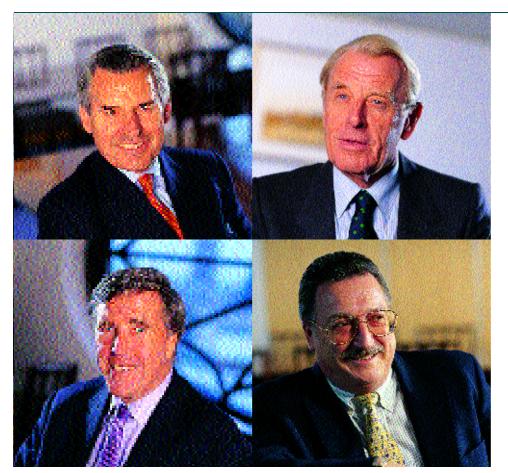
Group Finance Director Age 48:joined Johnson Matthey as Executive Director, Finance in September 1990 and assumed current job title in September 1995. Currently a non-executive director of API Group Plc. Previously Group Treasurer of The BOC Group plc.

## G D Wells

Age 62; appointed a non-executive director in March 1998. Currently a non-executive director of Exar Corporation, Q Logic Corporation and Align-Rite International. Previously Executive Vice President, Fairchild Semiconductor, President and Chief Executive Officer of General Electric's Intersil subsidiary, President and Chief Operating Officer, later Vice Chairman of LSI Logic Corporation and President and Chief Executive Officer of Exar Corporation. **A, M** 

#### D G Titcombe

Managing Director, Precious Metals Age 55;joined Johnson Matthey in 1960; appointed Division Director, Metals Division in 1984 and Director Precious Metals Marketing in 1988. Appointed Executive Director, Precious Metals in November 1990, and Managing Director, Precious Metals and Catalytic Systems in March 1994. In September 1995, he was appointed Managing Director of the enlarged Precious Metals Division. Currently a non-executive director of Wagon Industrial Holdings plc.



#### Committees of the Board

- A Audit Committee
- M Management Development and Remuneration Committee

# H R Jenkins CBE

Age 64; appointed a non-executive director in January 1996 when he retired as a director of The Prudential Corporation plc where he was Chief Executive of Prudential Portfolio Managers. Currently Chairman of Thorn plc and a non-executive director of EMI plc and The Rank Organisation Plc and chairs the property advisory group at the Department of the Environment. Previously Group Investment Director, Allied Dunbar Assurance and Director General of Investments, British Coal Pensions. A, M

# H E Fitzgibbons BAJD

Age 61; appointed a non-executive director in May 1990. Currently Managing Director of Top Technology Ltd and Hambros Advanced Technology Trust PLC. **A, M** 

## P F Retief

Age 65; appointed a non-executive director in June 1993. Currently Chairman of Tourist Investment Corporation and a Director, previously Chairman, of Anglo American Platinum Corporation Limited. Formerly Chairman of JCI Limited and Johnnies Industrial Corporation Limited. A, M

## Dr M J Cleare BSc DIC PhD FRSC

Managing Director, Electronic Materials Division Age 54; joined Johnson Matthey in 1966 and worked in various R&D roles.Research Director from 1982 to 1988. Appointed Planning and Development Director in 1989 and President of Materials Technology Division (North America) in 1990. Became President and Divisional Director MTD Chemicals in 1994 and Managing Director, Catalytic Systems and an executive director in September 1995. Appointed to his current role in January 1997.

# Corporate Governance

#### Code of Best Practice

The group has complied with the Code of Best Practice as recommended by the Cadbury Committee (the Code) for the year ended 31st March 1998.

#### Role of the Non-Executive Directors

Johnson Matthey's non-executive directors play an important role in ensuring the maintenance of good Corporate Governance.

The non-executive directors are kept fully informed of all major operational and strategic issues and generally concern themselves with the proper running of the company.

Both the Audit and the Management Development and Remuneration Committees of the Board have been in existence for a number of years.

The Audit Committee consists of Johnson Matthey's non-executive directors and is chaired by Hugh Jenkins. It assists the Board in ensuring that the assets of the company are protected by sound systems of internal control and that its financial reporting is accurate and timely and accords with best professional practice.

The Management Development and Remuneration Committee also consists of the non-executive directors and is chaired by Michael Miles. The Committee's report to shareholders is on pages 37 to 43.

#### Internal Controls

The directors have overall responsibility for the group's system of internal financial control. Any system of internal control can,however, only provide reasonable, but not absolute, assurance against material misstatement and loss. The full Board meets regularly and there is a formal schedule of matters which must be decided by the Board. Authority is delegated by the Board through a structure of Board Committees, with specific authority limits.

# Other Senior Management

#### Precious Metals

K Green Operations Director, Platinum R J Tait Operations Director, Chemicals P E Tape Finance Director B J Doherty Managing Director, Australasia

#### Catalytic Systems

NAP Carson Division Director CSD, President CSD Worldwide L C Pentz President CSD North America

P G Emmel Managing Director, European Region D B MacDermot Finance and Planning Director

# Pharmaceutical Materials

F K Sheffy Vice President and General Manager, Pharmaceutical

## Electronic Materials

B E Pouliquen Executive Vice President MR Baxter President, Laminate Products G J Coates Finance Director

N M G Davey President, Assembly Products D J Miller President, Wafer Fabrication Materials

#### Ceramic Materials

**C M Hood** Managing Director, Decorative Products **V Ros** Managing Director, Tile Products **J M Shears** Finance Director

#### Corporate

Y Katoh Chairman, Japan S Farrant Senior Legal Adviser I D Godwin Group Public Relations Manager M J L Henkel Group Taxation Manager G McGuire Director, Technology Centre D W Morgan Group Corporate Development Director

 $\textbf{I F Stephenson} \ \, \text{Director}, Information Technology and Environment,} \\ \textbf{Health and Safety and Personnel} \\$ 

## Group Management Structure

The group's organisational structure is focused on its four wholly owned divisions. These entities are all separately managed, but report through to a Board director. The Group Control Manual, which is distributed to all senior managers, clearly sets out the composition, responsibilities and authority limits of the various Board Committees and also specifies what may be decided without the need for central approval.

## Identification of Risks

The group's Treasury policies are discussed in the Financial Review on page 12. The principal aspects of these policies are discussed and approved by the Board. There are clearly defined authority limits, relating principally to capital expenditure, contractual agreements and matters of Treasury policy, which may not be exceeded by divisional management without reference to a committee of the Board. Specific criteria exist for the approval of significant contracts and other legal agreements. Significant items of this nature are reviewed by a committee of the Board.

## Principal Information and Control Systems

There is a comprehensive budgeting process. Divisional budgets are reviewed by the Board. Variances from budget are closely monitored. Monthly management reports from the divisions, which are reviewed by the Board and other senior group management, include earnings, balance sheet and cash flow information. Returns achieved on capital expenditure are monitored on a regular basis.

#### Monitoring

The Audit Committee meets at least twice a year to review the half year and year end accounts and all significant internal financial control concerns. Both internal and external auditors attend and participate in these meetings.

The Internal Audit function is responsible for monitoring the group's systems of internal financial control and the integrity of the financial information reported to the Board.Internal Audit liaise closely with the group's external auditors, who review the system of internal controls to the extent necessary to support their audit opinion. The high intrinsic value of many of the metals with which the group is associated necessitates the existence of stringent physical controls over precious metal held at the group's sites. These controls include a comprehensive programme of audits by the group's Security Department. The Board has formally reviewed the effectiveness of the internal financial control and business management systems of the group.

# Going Concern

The directors have a reasonable expectation that the group has adequate resources to continue in operational existence for the foreseeable future and have, therefore, adopted the going concern basis in preparing accounts.

## Corporate Governance Review

The auditor, KPMG Audit Plc, has confirmed that in its opinion,with respect to the directors' statements above on internal financial control and going concern, the directors have provided the disclosures required by the Listing Rules of the London Stock Exchange and such statements are not inconsistent with the information of which it is aware from its audit work on the accounts, and that the directors' statement on page 32 appropriately reflects the company's compliance with the other paragraphs of the Cadbury Code of Best Practice specified by the Listing Rules for their review. The auditor has carried out its review in accordance with the relevant guidance issued by the Auditing Practices Board, which does not require it to perform any additional work necessary to express a separate opinion on the effectiveness of either the group's system of internal financial control or corporate governance procedures, or on the ability of the group and company to continue in operational existence.

# Corporate Policies

Johnson Matthey places high priority on its responsibility for the environment and the health and safety of its employees, customers and the community. As a high technology company we believe that we have an important role to play in sustainable development. Johnson Matthey's leadership in autocatalyst technology contributes to improving air quality throughout the world. Development of fuel cells and solar cells provide a real opportunity to reduce carbon dioxide emissions, and our pharmaceutical materials products enhance the quality of life of many. Leadership in these important areas of technology is matched by a determination to achieve the highest standards of Environmental, Health and Safety practice within the business.

Our policy requires the careful assessment and control of environment,health and safety within Johnson Matthey's operations. We have formalised this responsibility by ensuring that these issues are represented at Board level and that all employees are aware of policy and their individual responsibilities. Now in its fifth year, our Environment, Health and Safety sub-committee of the Board ensures compliance with the corporate Environmental, Health and Safety Policies set out below. Each of our locations around the world is required to formulate its own particular arrangements, including performance targets, to meet the key objectives set out in the corporate policies. The policies, which now include a formal system of Risk Assessment, are disseminated widely and supported by training and the monitoring of progress and controls through regular audits. During the year we have continued to place emphasis on the quality of our management systems and our UK Chemicals business became the first Johnson Matthey operation to gain the ISO 14001 Environmental Management System standard. In North America, the Pharmaceutical Materials team at West Deptford, USA, achieved five years without a lost time accident, during a period of rapidly expanding operations at the site. Catalytic Systems Division's Devon, USA, plant was awarded the 1997 Paul Derksen Award for Environmental, Health and Safety Excellence on behalf of the Board.

JM's Continuously Regenerating Trap exhaust after treatment system for heavy duty diesel vehicles was one of the first 200 'Millennium' Products' to be named by the UK government. For more than 20 years, catalytic converters have been the most effective way to tackle pollution from all types of petrol and diesel vehicles. In the UK by the year 2000, Johnson Matthey autocatalysts alone will reduce carbon monoxide emissions by 1.2 million tonnes per year, nitrogen oxides by 300,000 tonnes per year and hydrocarbons by 230,000 tonnes per year.

# Environment

- · Ensure that site operations meet legal and company requirements.
- Design and manufacture products to optimise their environmental performance.
- · Eliminate all polluting releases from operations. Where elimination is not presently achievable, the intermediate goal is reduction.
- · Promote high standards of energy management.
- Undertake comprehensive waste management programmes based on the following hierarchy of options prevent, minimise, re-use, recycle and safely dispose.
- Minimise the impacts of past, present and future operations through effective planning and adequate provision of resources.
- Ensure that operations cause minimal visual impact or nuisance to the public.

# Health and Safety

- Ensure that all locations meet all legal and company health and safety requirements.
- · Manufacture current products in a manner which ensures a safe working environment through each phase of the production process.
- · Strive toward an end goal of eliminating unsafe practices at all locations.
- Promote high standards of safety awareness through employee involvement and management commitment at each location.
- Operate processes at all times to minimise danger to the surrounding community.
- · Provide immediate and effective response in event of accidents and emergencies.

# Directors' Report

The directors submit to shareholders their one hundred and seventh annual report, together with the audited accounts of the group for the year ended 31st March 1998. Pages I to 34 are an integral part of the report.

#### Principal Activities

The group's principal activities are summarised on the inside front cover.

#### Dividends

The interim dividend of 5.2 pence per share, up 0.5 pence, was paid as a FID in February 1998.A final dividend, which will also be paid as a FID, of 12.6 pence per share, up 1.8 pence, is being proposed to shareholders as Resolution No. 2 at the Annual General Meeting (AGM), making a total for the year of 17.8 pence, an increase of 15% over last year. Dividends for the year total £38.7 million.

#### Share Capital

Allotments of ordinary shares of £1 each of the company were made during the year as set out in note 21 on page 62.Resolutions will be proposed at the AGM to grant to the Board authority and power to allot new securities under sections 80 and 95 of the Companies Act 1985 (the Act).

Resolution No. 8 is an ordinary resolution to renew the authority of the directors to allot shares under section 80 of the Act. At the Annual General Meeting in July 1997 the directors' authority to issue securities was extended to five years from the date of the meeting. It is now proposed to extend that authority so that it applies for five years from the date of the AGM and that the nominal value of shares which may be allotted be £73,949,837 which is the nominal value of the authorised unissued ordinary share capital.

Resolution No. 9 is a special resolution to renew the authority of the directors, under section 95 of the Act, to allot equity securities for cash without first offering them pro rata to existing shareholders as otherwise required by section 89 of the Act; the authority sought is limited to issues of equity securities with a nominal value not to exceed £10,880,008, being equivalent to 5% of the nominal value of the company's issued ordinary share capital at 31st May 1998.

#### **Employment Policies**

It is the policy of the group to train and develop employees at all levels so that group objectives can be met. We recruit, train and manage our employees regardless of sex, ethnic origin or religion. Employees who become disabled and disabled people are offered employment consistent with their capabilities. Close attention, under the direction of the Management Development and Remuneration Committee (the MDRC), is given to the group's recruitment and training procedures as well as career development to meet current and future group requirements.

Johnson Matthey recognises the importance of effective employee communications. Information and comment is exchanged with employees through the company's in-house magazine, regular news bulletins, presentations to staff and team briefings.

42% of employees worldwide are shareholders in Johnson Matthey through the company's employee share participation schemes, which held 3,394,710 shares (1.56%) at 31st May 1998.797 current and former executives hold options over 5,264,648 shares through the company's executive share option schemes.

#### Directors

Details of the directors of the company are shown on pages 30 and 31.In addition, The Hon G H Wilson was a director for the period 1st April to 27th November 1997 and Mr D J Davies, who was a director throughout the financial year, retired from the Board on 9th June 1998.Mr G D Wells, appointed to the Board on 18th March 1998, offers himself for election at the forthcoming AGM.In accordance with the company's Articles of Association, Messrs C R N Clark and I G Thorburn (who are employed on service contracts subject to two years' notice) and Mr H R Jenkins retire by rotation and, being eligible, offer themselves for re-election at the forthcoming AGM. Directors' interests in the company's shares are detailed in the MDRC report on pages 37 to 43.

# Directors' Report

#### **Employee Share Schemes**

A letter is being sent to shareholders with this Annual Report which explains the rationale for and the details of a new Long Term Incentive Plan for directors and senior executives (Resolution No. 10), and amendments of a technical nature to the existing employee share schemes (Resolution Nos. 11 and 12).

#### Directors' Material Interests in Contracts

Other than service contracts no director had any interest in any material contract with any group company at any time during the year.

#### Substantial Shareholdings

The company has been advised of the following notifiable interests in its ordinary share capital as at 31st May 1998:

Schroder Investment Management Ltd	19.27%
Prudential Corporation group of companies (see note I below)	4.92%
Legal & General Investment Management Ltd (see note 1 below)	3.23%

The directors are not aware of any other notifiable holdings of 3% or more of the ordinary share capital of the company, but the following interests should also be noted:

- The Prudential Corporation and Legal &General control a number of non-material holdings which, when combined with the above notifiable material holdings, bring the total holdings to:Prudential 4.98% (1997 5.37%); Legal &General 3.62%.
- 2. Gartmore Investment Limited is interested in its capacity as fund manager in 3.22% of the ordinary share capital of the company.

#### Auditor

In accordance with section 384 of the Act,a resolution is to be proposed at the forthcoming AGM for the reappointment of KPMG Audit Plc as auditor of the company.

#### Policy on Payment of Commercial Debts

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The group's policy in relation to the payment of all suppliers (set out in its internal Group Control Manual, which is distributed to all group operations) is that payment should be made within the credit terms agreed with the supplier. At 31st March 1998, the company's aggregate level of "creditor days" amounted to 4 days. Creditor days are calculated by dividing the aggregate of the amounts which were owed to trade creditors at the end of the year by the aggregate of the amounts the company was invoiced by suppliers during the year and multiplying by 365 to express the ratio as a number of days.

#### Donations

During the year the group donated £272,000 (1997 £234,000) to charitable organisations, of which £213,000 (1997 £187,000) was in the UK.£26,000 (1997 £27,050) was donated for political purposes to the Conservative Party.

This report was approved by the directors on 9th June 1998 and is signed on their behalf by:

Gordon Thorburn, Secretary Trafalgar Square, London

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# MDRC Report

#### Management Development and Remuneration Committee (MDRC) Report to Shareholders

#### The Committee and its Terms of Reference

The Management Development and Remuneration Committee (the Committee) comprises all the non-executive directors of the company as set out on pages 30 and 31.

Mr G D Wells joined the Committee when he was appointed a non-executive director on 18th March 1998. The Hon G H Wilson resigned from the Committee on 27th November 1997 when he retired from the Board of Johnson Matthey.

The company has complied throughout the year with the recommendations of the Greenbury Committee relating to remuneration committees now incorporated in Section A of the best practice provisions annexed to the Stock Exchange Listing Rules.In formulating remuneration policy the Committee gives full consideration to the best practice provisions set out in Section B of the Rules.

The Committee determines the amount of profit to be appropriated to the company's employee share participation schemes.

The remuneration of the non-executive directors is determined by the Board, within the limits prescribed by the company's Articles of Association

#### Remuneration Policy

The Committee recognises that,in order to attract and retain a senior management team which will provide maximum shareholder value, it is necessary to have a competitive pay and benefits structure. To assist with this, the Committee receives regular advice from independent consultants on the pay and incentive arrangements prevailing in comparably sized industrial companies in each country in which Johnson Matthey has operations.

#### Executive Directors' Emoluments

The emoluments of the executive directors consist of the following components of a remuneration policy which was determined by the Committee in 1995 and reviewed further by the Committee in 1998.

- I Basic Salary which is in line with the median market salary for each director's responsibilities as advised by independent consultants.

  Basic Salary is normally reviewed on 1st August each year and the Committee takes into account individual performance during the year.
- 2 Annual Bonus which is paid as a percentage of basic salary under the terms of the company's Executive Compensation Plan (which also applies to the company's 200 or so most senior executives). The executive directors' bonus award is based on consolidated profit before tax (PBT) of Johnson Matthey compared with the annual budget. Under the terms of the scheme, an annual bonus payment of 30% of basic salary (prevailing at 31st March) is paid if the group meets the annual budget. This bonus payment may rise to a maximum of 50% of basic salary if the group achieves PBT of 107.5% of budget. PBT must reach 92.5% of budget for a minimum bonus to be payable. The Committee retains discretion to vary the awards payable under the foregoing formulae. The bonuses paid to executive directors in 1997/98 in respect of 1996/97's results averaged 11.67% of salary at 31st March 1997.

A further payment under the annual bonus scheme averaging 10% of salary was made to the top 16 executives, including the executive directors, in December 1997 at the discretion of the Committee.

# MDRC Report

3 Term Plan – During 1994/95 a term bonus plan (the Plan) was introduced to motivate and reward the most senior executives of the company for the achievement of longer term objectives and enhanced shareholder value. During the first year of the Plan, the Committee granted options over existing shares, based on performance against 1994/95 budgeted PBT, to the value of 25% of the executive's salary. These shares were held in trust and the number of shares to be finally awarded in July 1997 depended on the total shareholder return of Johnson Matthey's ordinary shares against the FTSE 350 on a sliding scale. There was to be no distribution if it fell below the 7th decile, which was the case in July 1997, and all outstanding options were cancelled accordingly.

Subsequent awards to the top 50 or so most senior executives will be paid in cash and will be based on the company's average

Subsequent awards to the top 50 or so most senior executives will be paid in cash and will be based on the company's average compound growth in earnings per share (excluding exceptional profits or losses) for the three years from 1996 to 1998.

This was 10%, which will entitle executive directors to an annual payment of 25% of salary (senior executives 20%) for the next three years, starting in July 1998.

Shareholder approval will be sought at the AGM for a new Long Term Incentive Plan (LTIP) to replace the existing Term Plan.

- 4 Share Options These have been granted under an approved scheme adopted in September 1985, the final grant under which was made in November 1994. New schemes, with a minimum performance requirement of EPS growth of RPI plus 2%, were approved by shareholders on 11th July 1995 and amended on 16th July 1996. Options under all the schemes are granted in annual tranches, as recommended by the Greenbury Committee, up to the maximum permitted of four times earnings. Mr D J Davies holds stock appreciation rights under a share price related cash bonus scheme, the terms of which are similar to those of the 1985 and 1995 share option schemes. Should the proposed LTIP receive shareholder approval, there will be no further grants of share options to the executive directors.
- 5 Pensions All the executive directors are members of the Johnson Matthey Employees Pension Scheme. Under the scheme, members are entitled to a pension based on their service and final pensionable salary subject to Inland Revenue limits. The scheme provides life assurance cover of four times annual salary. The normal pension age for directors is 60.
  None of the non-executive directors are members of the scheme. Details of the individual arrangements for executive directors are given on page 40.
- 6 Other Benefits Available to the executive directors are private medical insurance, a company car and membership of the company's employee share participation schemes which are open to all employees in the countries in which the company operates such schemes.
- 7 Service Contracts Mr D J Davies' contract is subject to eleven months' notice. The executive directors are employed on contracts subject to two years' notice at any time, which the Committee considers appropriate in the overall context of the executive directors' terms of employment. In the event of early termination, the MDRCstrongly endorses the principle of requiring directors to mitigate their loss.

#### Remuneration

In the year 1st April 1997 to 31st March 1998 Mr Davies was the highest paid director and his remuneration was as follows:

	1997/98	1996/97
	£	£
Emoluments	396,344	379,702
Performance-related bonus	67,804	97,430
	464,148	477,132
Stock appreciation rights – proceeds on exercise		417,208
Total	464,148	894,340

#### **Directors' Emoluments 1997/98**

						Total
					Total	prior year
					excluding	excluding
	Fees	Salary	Bonus	Benefits	pension	pension
	£	£	£	£	£	£
Executive						
D J Davies	_	373,044	67,804	23,300	464,148	477,132
C R N Clark	_	249,615	49,622	23,398	322,635	310,132
M J Cleare	_	197,330	59,404	19,737	276,471	266,183
J N Sheldrick	-	216,730	37,475	17,490	271,695	262,709
I G Thorburn	-	156,683	30,982	16,834	204,499	198,375
D G Titcombe	_	189,132	37,475	22,551	249,158	238,732
Non-Executive						
H E Fitzgibbons	20,000	_	-	_	20,000	20,000
H R Jenkins	20,000	_	-	_	20,000	20,000
H M P Miles	20,000	-	_	_	20,000	20,000
P F Retief	20,000	_	-	_	20,000	20,000
G D Wells	*1,235	_	_	_	1,235	_
G H Wilson	24,375	_	_	_	24,375	32,500

 $<sup>\</sup>ast$  including consultancy fees

M J Cleare is based in the US and his emoluments shown above have been translated at the group's average exchange rate.

Benefits are shown as the assessment to tax for each director arising from the provision of a company car and private medical insurance, plus the cost of company contributions to the company's employee share participation schemes.

The fees of G H Wilson,who resigned on 27th November 1997, were paid up to 31st December 1997. The fees of G D Wells are shown from the date of his appointment.

Executive directors may, with the consent of the Board, accept external directorships.

# MDRC Report

#### Pensions

Pension and life assurance benefits for executive directors are provided through the company's final salary occupational pension scheme for UK employees – The Johnson Matthey Employees Pension Scheme (JMEPS) – which is constituted under a separate Trust Deed.

The JMEPS is an exempt approved scheme under Chapter I of Part XIV of the Income & Corporation Taxes Act 1988, and its members are contracted-out of the State Earnings Related Pension Scheme.

The pensions benefits earned by the executive directors are as follows:

Name of Director	Age at 31st March 1998	Years of service at 31st March 1998	Director's contributions in the year (note 6) £	Increase in accrued pension in the year (note 2) £p.a.	Total accrued pension at 31st March 1998 (note 1) £p.a.	Transfer value of increase in accrued benefit at 31st March 1998 (note 3) £
D J Davies	57	8	6,835	3,168	12,185	42,000
C R N Clark	56	35	10,032	9,876	149,241	135,000
M J Cleare	54	31	7,553	12,793	105,114	177,000
J N Sheldrick	48	7	3,360	2,121	17,694	24,000
I G Thorburn	57	16	6,337	12,733	94,948	187,000
D G Titcombe	55	37	7,613	10,314	112,604	145,000

#### Notes:

- I The entitlement shown under "Total accrued pension at 31st March 1998" is the pension which would be paid annually on retirement, based on pensionable service to 31st March 1998. The pension would however be subject to an actuarial reduction of 0.3% per month for each month that precedes age 60.
- 2 The increase in accrued pension during the year excludes any increase for inflation.
- 3 The transfer value has been calculated on the basis of actuarial advice in accordance with Actuarial Guidance Note 11 less directors' contributions. No allowance has been made in the transfer value for any discretionary benefits that have been or may be awarded under the JMEPS.
- 4 On the recommendation of the actuary, the company has suspended contributions to the JMEPS until the next actuarial valuation.
- 5 The salaries of Messrs Davies and Sheldrick, who joined the scheme after 1989 have been supplemented by 9.5% and 14.5% respectively in view of the impact of the 1989 "earnings cap" on their JMEPS benefits. Mr Davies' JMEPS pension at normal retirement date is to be enhanced to the maximum permitted under Inland Revenue rules.
- 6 Members' contributions are at the general scheme rate of 4% of pensionable pay i.e. basic salary excluding bonuses.
- 7 In the case of M J Cleare, who is currently resident in the USA, pension entitlements are based on a notional UK salary for pension purposes which is normally reviewed annually. His notional salary for the period 1st April to 31st July 1997 was £174,000 and from 1st August 1997 to 31st March 1998 was £196,250.

#### Directors' Interests

The interests of the directors in the shares of the company, according to the register required to be kept by section 325(I) of the Companies Act 1985, were as at 31st March 1998:

#### **Johnson Matthey Ordinary Shares**

	31st March	31st March
	1998	1997
D J Davies	38,036	34,994
G H Wilson	*574	574
C R N Clark	14,718	15,299
M J Cleare	8,493	6,332
H E Fitzgibbons	1,125	1,125
H R Jenkins	1,000	1,000
H M P Miles	562	562
P F Retief	500	**562
J N Sheldrick	65,896	42,997
I G Thorburn	17,873	14,909
D G Titcombe	38,271	35,408
G D Wells	_	N/A

<sup>\*</sup> As at date of resignation

The directors also have a potential interest in the 91,423 shares held by an employee benefit trust, the Johnson Matthey Share Retention Trust (the "Trust"). The shares were purchased on the open market with a cash contribution of £511,100 from the company and are now the subject of conditional options granted under the company's executive share option schemes. At 31st March 1998 the market value of the shares held in the Trust was £565,451.

<sup>\*\*</sup> Non-beneficial interest

# MDRC Report

As at 31st March 1998,individual holdings under the company's executive share option schemes (or in the case of D J Davies the stock appreciation rights scheme) were as set out below. Options are not granted to the non-executive directors.

		Ordinary	Exercise	Date from		Total number of
	Date of	shares under	price	which	Expiry	ordinary shares
	grant	option	(pence)	exercisable	date	under option
D J Davies	31.12.89	61,496	225.72	31.12.92	31.12.1999	404,894
	1.8.90	36,160	276.53	1.8.93	1.8.2000	(1997:418,673)
	1.8.91	37,898	316.59	1.8.94	1.8.2001	
	1.8.92	9,772	410.39	1.8.95	1.8.2002	
	1.8.93	26,788	447.95	1.8.96	1.8.2003	
	1.8.94	60,942	526.71	1.8.97	1.8.2004	
	17.8.95	114,266	578.89	17.8.98	17.8.2005	
	17.7.96	57,572	574.50	17.8.99	17.7.2006	
C R N Clark	14.7.93	20,019	447.95	14.7.96	14.7.2003	198,325
	13.7.94	23,767	526.71	13.7.97	13.7.2004	(1997:160,510)
	17.8.95	67,077	578.89	17.8.98	17.8.2005	
	17.7.96	41,379	574.50	17.7.99	17.7.2006	
	17.7.97	46,083	556.00	17.7.2000	17.7.2007	
M J Cleare	13.7.94	10,157	526.71	13.7.97	13.7.2004	171,614
	17.8.95	38,693	578.89	17.8.98	17.8.2005	(1997:177,887)
	1.12.95	20,000	533.00	1.12.98	1.12.2005	
	17.7.96	34,088	574.50	17.7.99	17.7.2006	
	8.1.97	48,000	590.50	8.1.2000	8.1.2007	
	17.7.97	20,676	556.00	17.7.2000	17.7.2007	
J N Sheldrick	13.7.94	32,400	526.71	13.7.97	13.7.2004	160,331
	17.8.95	61,667	578.89	17.8.98	17.8.2005	(1997:206,754)
	17.7.96	30,776	574.50	17.7.99	17.7.2006	
	27.11.97	35,488	553.00	27.11.2000	27.11.2007	
I G Thorburn	18.7.91	8,801	316.59	18.7.94	18.7.2001	128,048
	16.7.92	4,839	410.39	16.7.95	16.7.2002	(1997:104,783)
	14.7.93	4,570	447.95	14.7.96	14.7.2003	
	13.7.94	10,360	526.71	13.7.97	13.7.2004	
	17.8.95	44,840	578.89	17.8.98	17.8.2005	
	17.7.96	25,173	574.50	17.7.99	17.7.2006	
	17.7.97	29,465	556.00	17.7.2000	17.7.2007	
D G Titcombe	18.7.91	37,351	316.59	18.7.94	18.7.2001	174,508
	16.7.92	11,496	410.39	16.7.95	16.7.2002	(1997:167,607)
	14.7.93	18,770	447.95	14.7.96	14.7.2003	
	13.7.94	23,767	526.71	13.7.97	13.7.2004	
	17.8.95	38,098	578.89	17.8.98	17.8.2005	
	17.7.96	30,776	574.50	17.7.99	17.7.2006	
	17.7.97	14,250	556.00	17.7.2000	17.7.2007	

#### Notes:

1 Between 1st April 1997 and 31st March 1998 the following options were exercised:

	Date of grant	Date of exercise	Ordinary shares exercised	Exercise price (pence)	Market price on exercise (pence)
M J Cleare	14.7.93	17.7.97	20,314	447.95	565.00
J N Sheldrick	18.7.91	5.9.97	37,351	316.59	653.00
	16.7.92	5.9.97	11,819	410.39	653.00
	14.7.93	5.9.97	25,392	447.95	653.00

- 2 Gains made on exercise of options by directors during the year totalled £230,171 (1997:£506,775).
- 3 The market price of the company's shares at 31st March 1998 was 618.50 pence and the range during 1997/98 was 461.50 pence to 694.00 pence.

Directors' interests at 1st June 1998 were unchanged from those listed above with the following exceptions:

The Trustees of the Johnson Matthey UK Employee Share Participation Scheme have purchased on behalf of Messrs D J Davies,
C R N Clark, J N Sheldrick, I G Thorburn and D G Titcombe a further 446,446, 444,442 and 446 ordinary shares respectively.

The Trustees of the US Salaried Employees Savings Investment Plan have purchased 407 shares on behalf of Dr M J Cleare.

Mr G D Wells purchased 1,000 shares on 7th April 1998. No director had an interest in the 3.5% preference shares at 1st April 1997 or 31st March 1998.

Michael Miles OBE

Chairman

Management Development and Remuneration Committee

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## Responsibility of the Directors

for the preparation of the accounts

Company law requires the directors to prepare accounts for each financial year which give a true and fair view of the state of affairs of the company and group and of the profit or loss for that period. In preparing those accounts, the directors are required to:

- · select suitable accounting policies and apply them consistently,
- make judgments and estimates that are reasonable and prudent,
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the accounts.
- prepare the accounts on the going concern basis unless it is inappropriate to presume that the group will continue in business.

The directors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the company and to enable them to ensure that the accounts comply with the Companies Act 1985. They have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the group and to prevent and detect fraud and other irregularities.

# Report of the Auditors

to the members of Johnson Matthey Public Limited Company

We have audited the accounts on pages 45 to 68. We have also examined the amounts disclosed relating to emoluments, share options, term plan and pension benefits of the directors which form part of the MDRC report on pages 37 to 43.

#### Respective Responsibilities of Directors and Auditor

As described above the company's directors are responsible for the preparation of accounts. It is our responsibility to form an independent opinion, based on our audit, on those accounts and to report our opinion to you.

#### Basis of Opinion

We conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the accounts. It also includes an assessment of the significant estimates and judgments made by the directors in the preparation of the accounts, and of whether the accounting policies are appropriate to the group's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the accounts are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the accounts

#### Opinion

In our opinion the accounts give a true and fair view of the state of affairs of the company and the group as at 31st March 1998 and of the profit of the group for the year then ended and have been properly prepared in accordance with the Companies Act 1985.

#### **KPMG Audit Plc**

Chartered Accountants Registered Auditor London 10th June 1998

## **Accounting Policies**

for the year ended 31st March 1998

**Accounting convention:** The accounts are prepared in accordance with applicable accounting standards under the historical cost convention as modified by the revaluation of certain land and buildings.

**Basis of consolidation:** The consolidated accounts comprise the accounts of the parent company and all its subsidiary undertakings and include the group's interest in associated undertakings.

The results of companies acquired or disposed of in the year are dealt with from or up to the effective date of acquisition or disposal respectively. The net assets of companies acquired are incorporated in the consolidated accounts at their fair values to the group at the date of acquisition. Goodwill arising on acquisitions is taken to reserves.

The parent company has not presented its own profit and loss account as permitted by section 230 of the Companies Act 1985.

Turnover: Comprises all invoiced sales of goods and services exclusive of sales taxes.

Foreign currencies: Profit and loss accounts in foreign currencies and cash flows included in the cash flow statement are translated into sterling at average exchange rates for the year. Foreign currency assets and liabilities are translated into sterling at the rates of exchange at the balance sheet date. Gains or losses arising on the translation of the net assets of overseas subsidiaries and associated undertakings are taken to reserves, less exchange differences arising on related foreign currency borrowings. Other exchange differences are taken to the profit and loss account.

Research and development expenditure: Charged against profits in the year incurred.

**Depreciation:** Freehold land and certain office buildings are not depreciated. The group's policy is to maintain these properties in such condition that their value does not diminish and the cost of maintenance is charged to operating profit. Other fixed assets are depreciated on a straight line basis at annual rates which vary according to the class of asset, but are typically; leasehold property 2% (or at higher rates based on the life of the lease), freehold buildings 3.33%, plant and equipment 10% - 33%.

Leases: The cost of assets held under finance leases is included under tangible fixed assets and the capital element of future lease payments is included in borrowings. Depreciation is provided in accordance with the group's accounting policy for the class of asset concerned. Lease payments are treated as consisting of capital and interest elements and the interest is charged to the profit and loss account using the annuity method. Rentals under operating leases are expensed as incurred.

**Grants in respect of capital expenditure:** Grants received in respect of capital expenditure are included in creditors and released to the profit and loss account in equal instalments over the expected useful lives of the related assets.

Precious metal stocks: Stocks of gold, silver and platinum group metals are valued according to the source from which the metal is obtained. Metal which has been purchased and committed to future sales to customers or hedged in metal markets is valued at the price at which it is contractually committed or hedged, adjusted for unexpired contango. Leased metal is valued at market prices at the balance sheet date. Other precious metal stocks owned by the group, which are unhedged, are valued at the lower of cost and net realisable value.

Other stocks: These are valued at the lower of cost, including attributable overheads, and net realisable value.

**Deferred taxation:** Provided using the liability method on all timing differences to the extent that they are expected to reverse in the foreseeable future

Pensions and other retirement benefits: The group operates a number of contributory and non-contributory schemes, mainly of the defined benefit type, which require contributions to be made to separately administered funds. The cost of these schemes is charged to profit and loss account over the service lives of employees in accordance with the advice of the schemes' independent actuaries. Variations from the regular cost are spread over the average expected remaining service lives of current employees.

The cost of post-retirement health care benefits is charged to profit and loss account on a systematic basis over the expected service lives of employees. The actuarial liability for the cost of these benefits is fully provided for in the balance sheet.

# Consolidated Profit and Loss Account

for the year ended 31st March 1998

		1998	1998	1998	1997
		Before	E		
		exceptional items	Exceptional items	Total	Total
N	OTE	£ million	£ million	£ million	£ million
Turnover	1				
Continuing operations		3,226.3	-	3,226.3	2,562.5
Acquisitions		22.1		22.1	
Total continuing operations		3,248.4	_	3,248.4	2,562.5
Discontinued operations	3	18.7	_	18.7	17.6
Total turnover		3,267.1	_	3,267.1	2,580.1
Less share of Cookson Matthey Ceramics plc		(128.3)	_	(128.3)	(156.9)
Group turnover		3,138.8	_	3,138.8	2,423.2
Operating profit	1				
Continuing operations	2	136.4	0.4	136.8	112.7
Acquisitions	2	1.3	(4.9)	(3.6)	_
Total continuing operations		137.7	(4.5)	133.2	112.7
Discontinued operations	3	1.5	_	1.5	3.6
Total operating profit	4	139.2	(4.5)	134.7	116.3
Profit on sale – continuing operations			(3.2)		
Part disposal of investment in AnorMEDInc.	2	_	2.6	2.6	_
Profit on sale - discontinued operations					
Sale of Otavi Minen AG	2		1.8	1.8	
Profit on ordinary activities before interest		139.2	(0.1)	139.1	116.3
Net interest	6	(9.0)	_	(9.0)	(8.0)
Profit on ordinary activities before taxation	5	130.2	(0.1)	130.1	108.3
Taxation	7	(33.9)	8.7	(25.2)	(29.2)
Profit after taxation		96.3	8.6	104.9	79.1
Equity minority interests		(0.3)	_	(0.3)	(1.2)
Profit attributable to shareholders		96.0	8.6	104.6	77.9
Dividends	8	(38.7)	_	(38.7)	(33.6)
Retained profit for the year	22	57.3	8.6	65.9	44.3
				pence	pence
Earnings per ordinary share	9			48.2	36.0
Earnings per ordinary share excluding exceptional items	9			44.3	36.0
Dividend per ordinary share	8			17.8	15.5

The notes on pages 50 to 68 form an integral part of the accounts.

# Consolidated and Parent Company Balance Sheets

as at 31st March 1998

			Group		company
	NOTE	1998	1997	1998	1997
	NOTE	£ million	£ million	£ million	£ millior
Fixed assets					
Tangible fixed assets	11	476.5	354.4	85.6	88.4
Investments	12	4.2	84.2	208.6	169.6
		480.7	438.6	294.2	258.0
Current assets					
Stocks	14	245.5	185.3	103.8	107.2
Debtors:due within one year	15	293.2	179.2	473.7	442.4
Debtors:due after one year	15	85.5	73.I	221.5	71.9
Short term investments		2.4	0.3	0.5	0.3
Cash at bank and in hand	16	63.8	62.2	0.7	19.1
		690.4	500. I	800.2	640.9
Creditors:Amounts falling due within one year	r				
Borrowings and finance leases	16	(141.6)	(124.2)	(56.1)	(2.2
Precious metal leases	17	(24.1)	(22.8)	(23.8)	(22.3
Other creditors	18	(289.5)	(193.9)	(216.2)	(195.3
Net current assets		235.2	<u>159.2</u>	504.1	421.1
Total assets less current liabilities		715.9	597.8	798.3	679.1
Creditors:Amounts falling due after more tha	n one year				
Borrowings and finance leases	16	(147.3)	(81.7)	(139.0)	(68.3
Other creditors	18	(2.7)	(8.0)	(0.2)	(0.2
Provisions for liabilities and charges	19	(66.5)	(50.0)	(9.2)	(9.3
Net assets		499.4	465.3	649.9	601.3
Capital and reserves					
Called up share capital	21	217.8	217.2	217.8	217.2
Share premium account	22	101.8	99.6	101.8	99.6
Revaluation reserve	22	15.5	17.3	5.3	6.7
Associated undertakings' reserves	22	1.6	(11.5)	-	-
Profit and loss account	22	156.6	142.5	325.0	277.8
Shareholders' funds		493.3	465.1	649.9	601.3
Equity minority interests		6.1	0.2		
		499.4	465.3	649.9	601.3

The accounts were approved by the Board of Directors on 9th June 1998 and signed on its behalf by:

C R N Clark

Directors

J N Sheldrick

The notes on pages 50 to 68 form an integral part of the accounts.

# Consolidated Cash Flow Statement

for the year ended 31st March 1998

	NOTE	1998 £ million	1997 £ million
Reconciliation of operating profit to net cash inflow from operating activities			
		134.7	116.3
Operating profit Depreciation charges		45.5	40.6
Profit on sale of tangible fixed assets and investments		(3.1)	(1.7)
Profit of associated undertakings less dividends received		(5.7)	(16.9)
(Increase) / decrease in owned stocks		(12.4)	0.3
Increase in debtors		(56.6)	(32.3)
Increase in creditors and provisions		54.0	18.1
Net cash inflow from operating activities		156.4	124.4
Cash Flow Statement			
Net cash inflow from operating activities		156.4	124.4
Returns on investments and servicing of finance	24	2.6	6.2
Taxation		(30.8)	(18.2)
Capital expenditure and financial investment	24	(64.7)	(77.6)
Acquisitions and disposals			
Acquisitions	24	(64.6)	(27.2)
Disposals	24	20.5	2.0
Net cash outflow for acquisitions and disposals		(44.1)	(25.2)
Equity dividends paid		(34.7)	(31.9)
Net cash outflow before use of liquid resources and financing		(15.3)	(22.3)
Management of liquid resources	24	9.0	(0.8)
Financing			
Issue of ordinary share capital	24	2.8	3.2
Increase in borrowings and finance leases	24	2.3	45.7
Net cash inflow from financing		5.1	48.9
(Decrease) / increase in cash in the period		(1.2)	25.8
Reconciliation of net cash flow to movement in net debt			
(Decrease) / increase in cash in the period		(1.2)	25.8
Cash inflow from increase in borrowings and finance leases	25	(2.3)	(45.7)
Cash (inflow) / outflow from term deposits included in liquid resources		(9.0)	0.8
Change in net debt resulting from cash flows		(12.5)	(19.1)
Liquid resources, borrowings and finance leases acquired with subsidiaries	25	(82.3)	_
New finance leases		(2.1)	-
Translation difference	25	15.5	9.6
Movement in net debt in year		(81.4)	(9.5)
Net debt at beginning of year	25	(143.7)	(134.2)
Net debt at end of year	25	(225.1)	(143.7)
The notes on pages 50 to 68 form an integral part of the accounts.			

# Total Recognised Gains and Losses

for the year ended 31st March 1998

	1998 £ million	1997 £ million
Profit attributable to shareholders	104.6	77.9
Unrealised deficit on revaluation	(1.8)	
	102.8	77.9
Currency translation differences on foreign currency net investments	(23.6)	(27.3)
Total recognised gains and losses relating to the year	79.2	50.6

## Note of Historical Cost Profits and Losses

for the year ended 31st March 1998

	l 998 £ million	1997 £ million
Reported profit on ordinary activities before taxation	130.1	108.3
Difference between historical cost depreciation and actual	(0.2)	(0.2)
Historical cost profit on ordinary activities before taxation	129.9	108.1
Historical cost retained profit	65.7	44.1

## Movement in Shareholders' Funds

for the year ended 31st March 1998

	1998	1997
	£ million	£ million
Profit attributable to shareholders	104.6	77.9
Dividends	(38.7)	(33.6)
Retained profit for the year	65.9	44.3
Other recognised gains and losses relating to the year	(25.4)	(27.3)
New share capital subscribed	2.8	3.2
Goodwill written back on disposals	1.0	_
Goodwill written off in respect of acquisitions and joint ventures	(16.1)	(6.0)
Net addition to shareholders' funds	28.2	14.2
Opening shareholders' funds	465.1	450.9
Closing shareholders' funds	493.3	465.1

The notes on pages 50 to 68 form an integral part of the accounts.

for the year ended 31st March 1998

		over	Operating profit		•	ting assets
Activity analysis	1998 £ million	1997 £ million	1998 £ million	1997 £ million	1998 £ million	1997 £ million
Precious Metals	2,262.2	1,717.9	52.5	44.0	156.4	186.9
Catalytic Systems	390.8	361.6	45.4	34.1	161.2	133.3
Electronic Materials	438.1	343.7	40.1	30.9	245.4	220.9
Ceramic Materials	157.3	139.3	9.4	13.2	160.2	76.0
Corporate			(9.7)	(9.5)	(2.5)	(8.1)
	3,248.4	2,562.5	137.7	112.7	720.7	609.0
Discontinued operations	18.7	17.6	1.5	3.6	3.8	_
	3,267.1	2,580. I	139.2	116.3	724.5	609.0
Less share of Cookson Matthey						
Ceramics plc turnover	(128.3)	(156.9)				
Total group turnover	3,138.8	2,423.2				
Exceptional items (note 2)			(0.1)	_		
Net interest			(9.0)	(8.0)		
Profit on ordinary activities before	taxation		130.1	108.3		
Net borrowings and finance leases					(225.1)	(143.7)
Net assets					499.4	465.3
		over	Operatir		•	ting assets
Geographical analysis by origin	1998 £ million	1997 £ million	1998 £ million	1997 £ million	1998 £ million	1997 £ million
Europe	1,871.7	1,548.2				LIIIIIIOII
North America		1,540.2	43.6	39.7	367.6	307.5
Door of the Mond	1,015.4	842.3	43.6 79.2	39.7 61.4	367.6 267.3	
Rest of the World	1,015.4 913.2	ŕ				307.5
vest of the Anolia	•	842.3	79.2	61.4	267.3	307.5 228.7
Discontinued operations	913.2	842.3 573.2	79.2 14.9	61.4	267.3 85.8	307.5 228.7 72.8
	913.2 3,800.3	842.3 573.2 2,963.7	79.2 14.9 137.7	61.4	267.3 85.8 720.7	307.5 228.7 72.8
	3,800.3 18.8	842.3 573.2 2,963.7 17.6	79.2 14.9 137.7 1.5	61.4 11.6 112.7 3.6	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations	913.2 3,800.3 18.8 3,819.1	842.3 573.2 2,963.7 17.6 2,981.3	79.2 14.9 137.7 1.5	61.4 11.6 112.7 3.6	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations	913.2 3,800.3 18.8 3,819.1 (552.0)	842.3 573.2 2,963.7 17.6 2,981.3 (401.2)	79.2 14.9 137.7 1.5	61.4 11.6 112.7 3.6	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations  Less inter-segment sales	913.2 3,800.3 18.8 3,819.1 (552.0)	842.3 573.2 2,963.7 17.6 2,981.3 (401.2)	79.2 14.9 137.7 1.5	61.4 11.6 112.7 3.6	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations  Less inter-segment sales  Less share of Cookson Matthey	913.2 3,800.3 18.8 3,819.1 (552.0) 3,267.1	842.3 573.2 2,963.7 17.6 2,981.3 (401.2) 2,580.1	79.2 14.9 137.7 1.5	61.4 11.6 112.7 3.6	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations  Less inter-segment sales  Less share of Cookson Matthey Ceramics plc turnover	913.2 3,800.3 18.8 3,819.1 (552.0) 3,267.1 (128.3)	842.3 573.2 2,963.7 17.6 2,981.3 (401.2) 2,580.1 (156.9)	79.2 14.9 137.7 1.5	61.4 11.6 112.7 3.6	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations  Less inter-segment sales  Less share of Cookson Matthey Ceramics plc turnover  Total group turnover	913.2 3,800.3 18.8 3,819.1 (552.0) 3,267.1 (128.3)	842.3 573.2 2,963.7 17.6 2,981.3 (401.2) 2,580.1 (156.9)	79.2 14.9 137.7 1.5 139.2	61.4 11.6 112.7 3.6	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations  Less inter-segment sales  Less share of Cookson Matthey Ceramics plc turnover  Total group turnover  Exceptional items (note 2)	913.2 3,800.3 18.8 3,819.1 (552.0) 3,267.1 (128.3) 3,138.8	842.3 573.2 2,963.7 17.6 2,981.3 (401.2) 2,580.1 (156.9)	79.2 14.9 137.7 1.5 139.2	61.4 11.6 112.7 3.6 116.3	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0
Discontinued operations  Less inter-segment sales  Less share of Cookson Matthey Ceramics plc turnover  Total group turnover  Exceptional items (note 2) Net interest	913.2 3,800.3 18.8 3,819.1 (552.0) 3,267.1 (128.3) 3,138.8	842.3 573.2 2,963.7 17.6 2,981.3 (401.2) 2,580.1 (156.9)	79.2 14.9 137.7 1.5 139.2	61.4 11.6 112.7 3.6 116.3	267.3 85.8 720.7 3.8	307.5 228.7 72.8 609.0

Less share of Cookson Matthey Ceramics plc turnover

for the year ended 31st March 1998

#### I Segmental information continued 1997 1998 External turnover by geographical destination £ million £ million 1,091.5 913.6 Europe North America 1,034.8 961.0 Rest of the World 1,140.8 705.5 3,267.1 2,580.1

The segmental information relating to turnover includes the group's share of the turnover of Cookson Matthey Ceramics plc prior to 6th February 1998. Operating profit is inclusive of the group's share of profits of all associated undertakings.

Turnover by destination relating to the United Kingdom amounted to £729.4 million (1997 £573.4 million).

#### 2 Exceptional items

Total group turnover

A net exceptional charge of £4.5 million has been included in operating profit. This comprises:

Cost of restructuring of Cookson Matthey Ceramics plc (CMC) post acquisition	(4.9)
Other rationalisation costs	(3.1)
Profit on sale of shares in Ballard Power Systems,Inc.	3.5
	(4.5)

These charges arise in Europe (£4.2 million) and North America (£0.3 million).

Other rationalisation costs include £1.3 million for the group's share of rationalisation costs of CMCprior to acquisition,£1.4 million relating to Precious Metals and £0.4 million relating to Catalytic Systems.

On 31st March 1998 the group sold its 87.6% interest in Otavi Minen AG, previously part of CMC, for net proceeds of £16.6 million. The sale produced a net profit of £1.8 million after writing back goodwill of £1.0 million.

During the year Johnson Matthey disposed of part of its investment in AnorMED Inc.,an associated undertaking, which reduced the group's holding from 40% to 25% and gave rise to a profit on disposal of £2.6 million.

#### 3 Discontinued operations

	Turnover		Operating profit	
	1998	1997	1998	1997
	£ million	£ million	£ million	£ million
Otavi Minen AG (note 27)	12.9	12.4	1.0	1.6
UKMinerals	5.8	5.2	0.5	0.5
Matthey Rustenburg Refiners (Pty)Limited			_	1.5
	18.7	17.6	1.5	3.6

The UKMinerals business, previously part of CMC, was sold on 1st June 1998. Matthey Rustenburg Refiners (Pty) Limited, an associated undertaking, was disposed of on 31st December 1996.

(128.3)

3,138.8

(156.9) 2,423.2

£ million

for the year ended 31st March 1998

4 Operating profit after exceptio	nal items					
	1998	1998	1998	1998	1998	1997
			Total			
	Continuing		Continuing	Discontinued		
	operations	Acquisitions	operations	operations	Total	Total
	£ million	£ million	£ million	£ million	£ million	£ million
Group turnover	3,111.0	22.1	3,133.1	5.7	3,138.8	2,423.2
Cost of materials sold	(2,531.1)	(10.8)	(2,541.9)	(3.1)	(2,545.0)	(1,949.2)
Net revenues	579.9	11.3	591.2	2.6	593.8	474.0
Other cost of sales	(346.4)	(6.2)	(352.6)	(1.4)	(354.0)	(278.1)
Gross profit	233.5	5.1	238.6	1.2	239.8	195.9
Distribution costs	(46.6)	(2.3)	(48.9)	(0.5)	(49.4)	(46.0)
Administrative expenses	(54.5)	(6.5)	(61.0)	(0.4)	(61.4)	(50.5)
Associated undertakings	4.4	0.1	4.5	1.2	5.7	16.9
Operating profit	136.8	(3.6)	133.2	1.5	134.7	116.3

Total continuing operations include exceptional charges of £1.1 million in other cost of sales,£0.1 million in distribution costs, £2.0 million in administration expenses and £1.3 million in associated undertakings.

#### 5 Profit on ordinary activities before taxation

5 Trone on ordinary accid	vicies belove taxation	1998	1997
		£ million	£ million
Profit on ordinary activities be	efore taxation is arrived at after charging / (crediting):		
Research and development		32.8	32.9
less share of Cookson Matthe	ey Ceramics plc	(2.9)	(3.6)
less external funding received		(2.8)	(3.9)
Net research and developmen	nt	27.1	25.4
Depreciation on owned assets	S	45.5	40.6
Auditor's remuneration	– parent company	0.3	0.3
	– subsidiary undertakings	0.5	0.6
	- group	0.8	0.9
Other fees paid to auditor	– United Kingdom	0.2	0.1
·	– rest of world	0.8	0.1
Operating lease rentals	– on plant and machinery	2.8	2.6
	- on other operating leases	7.7	7.2

Directors' fees were £0.1 million (1997 £0.1 million) and other emoluments were £1.8 million (1997 £2.2 million). Details are given in the MDRC report on pages 37 to 43.

for the year ended 31st March 1998

			1998	1997
			£ million	£ million
Interest payable on bank loans and overdrafts			(8.3)	(5.6)
Interest payable on other loans			(4.3)	(4.2)
			(12.6)	(9.8)
Interest receivable from associated undertakings			8.5	10.2
Other interest receivable			5.9	3.3
Net interest – group			1.8	3.7
Share of net interest of associated undertakings – payable to group  Share of net interest of associated undertakings – other			(8.5) (2.3)	(10.2) (1.5)
Net interest			(9.0)	(8.0)
Net interest			(7.0)	(6.0)
7 Taxation				
	£ million	1998 £ million	£ million	1997 £ million
United Kingdom				
Corporation tax at 31% (1997 33%)		42.1		20.0
Double taxation relief		(26.5)		(6.4)
Net advance corporation tax set off in year		(3.1)		(1.5)
Current taxation for year		12.5		12.1
Deferred taxation for year		(1.1)		0.1
Adjustment for prior years		5.8		_
Prior year advance corporation tax set off		(4.8)		12.2
Overseas		12.4		12.2
Taxation on income for the year	20.9		6.3	
Withholding tax deductions on overseas income	2.6		0.1	
Current taxation for year	23.5		6.4	
Deferred taxation for year	2.6		6.3	
Adjustment for prior years	(7.0)			
		19.1		12.7
Associated undertakings		2.4		4.3
		33.9		29.2
Taxation on exceptional restructuring and rationalisation costs		(0.4)		_
Taxation on disposals		0.4		_
ACT saving on foreign income dividends (FIDs)		(8.7)		
Total taxation		<u>25.2</u>		29.2
8 Dividends			1000	1007
			1998 £ million	1997 £ million
2.5% Cumulativa profesones dividend: d (10.500 /1997 (10.500)				
3.5% Cumulative preference dividend paid £10,500 (1997 £10,500)  Interim ordinary dividend paid - 5.2 pence per share (1997 4.7 pence	per share)		11.3	10.2
Final ordinary dividend proposed - 12.6 pence per share (1997-10.8 pence)			27.4	23.4
Total dividends	. ,		38.7	33.6
iotai airiaciius				

Mourant &Co. Limited, as trustee for the employee benefit trust (described on page 41), did not waive its dividend entitlement on its holding of 91,423 ordinary shares of £1 each for the year ended 31st March 1998 (in 1997 its dividend entitlement was waived with the exception of 0.02 pence per share).

for the year ended 31st March 1998

#### 9 Earnings per ordinary share

Profit for the year attributable to shareholders,less preference dividends,is £104.6 million (1997 £77.9 million). This is divided by the weighted average number of shares in issue calculated as 217,051,187 (1997 216,507,894) to give basic earnings per share of 48.2 pence (1997 36.0 pence). The effect on earnings per share of the exercise of outstanding share options would not be material.

Excluding exceptional items, the tax thereon, and the benefit of the ACT saving on FIDs earnings per share were 44.3 pence (1997 36.0 pence).

	1998	1997
	£ million	£ million
Attributable profit	104.6	77.9
Exceptional items	0.1	_
Tax thereon	-	-
ACT saving on FIDs	(8.7)	
Adjusted profit	96.0	77.9
Earnings per share excluding exceptional items	44.3p	36.0p

#### 10 Employee information

#### 10aRetirement benefits

#### (i) United Kingdom pension scheme

The group's principal UK pension scheme is of the defined benefit type which requires contributions to be made to a separately administered fund. At 1st April 1997,the date of the latest actuarial valuation,the market value of the UK scheme's assets was £421.0 million,the actuarial value of which represented 153% of the liability for benefits that had accrued to that date, making full allowance for future salary and pension increases and after taking into account the cost of benefit improvements granted with effect from 1st April 1998. This represents an actuarial surplus of £138.7 million which, following actuarial recommendations, has permitted the company to suspend contributions for the foreseeable future. A surplus cannot be refunded to the company except by dissolution of the scheme in accordance with the rules of the scheme and relevant legislation. The financial assumptions applicable to the last actuarial valuation at 1st April 1997 were: long term rate of investment return 7.75%, dividend increase rate 4.25%, general salary and wage inflation rate 6% and pension increase rate 4%.

The other UKpension scheme relates to Cookson Matthey Ceramics plc (CMC) which became a wholly owned subsidiary on 6th February 1998. The CMC group's UK pension scheme is also of the defined benefit type which requires contributions to be made to a separately administered fund. At 31st December 1996, the date of the latest actuarial valuation, the market value of the UK scheme's assets were £49.8 million, the actuarial value of which represented 101.4% of the liability for benefits that had accrued to that date making full allowance for future salary and pension increases. This represents an actuarial surplus of £0.7 million. The financial assumptions applicable to the last valuation at 31st December 1996 were: long term rate of investment return 9.5%, dividend increase rate 5.5%, general salary and wage inflation rate 7% and pension increase rate 4.5%. Following actuarial recommendations the company commenced contributions during 1997.

In accordance with the applicable accounting standard,the surplus on the group's UK pension funds has been spread over the average of the expected remaining service lives of current employees (12 years) as a variation from regular cost. The regular pension cost is assessed using the projected unit method.

#### (ii) Foreign schemes

Pension costs relating to foreign schemes are charged in accordance with local best practice using different accounting policies. The group's largest foreign scheme is in the US, which is of the defined benefit type and which requires contributions to be made to a separately administered fund. This scheme is accounted for using the applicable US accounting standard. The cost of obtaining actuarial valuations for the purpose of adjusting to the applicable UK accounting standard is considered to be out of proportion to the benefits to be gained.

for the year ended 31st March 1998

#### 10aRetirement benefits continued

#### (iii) Other retirement benefits

These costs are charged on an accruals basis similar to that used for pensions. The actuarial liability for the cost of these benefits is fully provided for in the balance sheet.

#### (iv) Profit and loss account and balance sheet impact of providing retirement benefits

The effect of providing pensions and other retirement benefits on operating profit was as follows:

	1998	1997
	£ million	£ million
United Kingdom		
Regular pension cost	(6.2)	(4.9)
Variation from regular cost	10.8	11.6
Interest on prepayment	5.5	4.8
Cost of post-retirement medical benefits	(0.2)	(0.3)
	9.9	11.2
Overseas		
Cost of foreign pension schemes	(4.3)	(3.0)
Cost of post-retirement medical benefits	(1.0)	(0.9)
	4.6	7.3

The following prepayments and provisions relating to pension schemes and other post-retirement benefits are included in the group and parent company's balance sheets:

and parent company's balance sneets.					
		oup		company	
	1998	1997	1998	1997	
	£ million	£ million	£ million	£ million	
Prepaid pension costs in the UK	82.2	71.4	82.2	71.4	
Provision for UKpensions	1.7	_	_	_	
Provision for foreign pensions	7.3	3.8	_	_	
Provision for post-retirement medical benefits – UK	3.6	2.9	3.0	2.9	
Provision for post-retirement medical benefits – overseas	12.7	12.5	-	-	
I 0bEmployee numbers			1000	1007	
The average weekly number of employees during the year was as follows:			1998	1997	
Precious Metals			1,994	2,038	
Catalytic Systems			1,227	1,183	
Electronic Materials			5,679	4,026	
Ceramic Materials			1,758	1,472	
Research and Corporate			215	205	
			10,873	8,924	
Less share of Cookson Matthey Ceramics plc			(1,277)	(1,472)	
Average number of employees			9,596	7,452	
Actual number of employees at 31st March			12,617	9,737	
Less share of Cookson Matthey Ceramics plc			_	(1,573)	
Actual number of employees at 31st March			12,617	8,164	
The control of the co	1 244 (100	7 774)			

The number of temporary employees included above at 31st March 1998 was 1,244 (1997 774).

for the year ended 31st March 1998

10c Employee costs				
			1998 ₤ million	1997 £ million
Wages and salaries			191.9	166.5
Social security costs			18.2	15.7
Other pension costs			(4.6)	(7.3)
Total employee costs			205.5	174.9
II Fixed assets – tangible assets				
I I a Group				
	Freehold	GI .	DI O	
	land & buildings	Short leasehold	Plant & machinery	Total
	£ million	£ million	£ million	£ million
Cost / Valuation				
At beginning of year	118.3	15.4	413.5	547.2
Purchases	6.4	0.8	70.0	77.2
Acquisitions	45.3	1.1	74.9	121.3
Reclassifications	7.6	0.6	(8.2)	-
Disposals	(0.1)	_	(8.2)	(8.3)
Disposal of subsidiaries	(7.7)	_	(5.2)	(12.9)
Revaluations	(1.8)	_	_	(1.8)
Exchange adjustments	(5.1)	(0.9)	(16.4)	(22.4)
At end of year	162.9	17.0	520.4	700.3
Depreciation				
At beginning of year	8.3	5.5	179.0	192.8
Charge for the year	3.9	1.5	40. I	45.5
Disposals	_	_	(7.2)	(7.2)
Disposal of subsidiaries	_	_	(0.2)	(0.2)
Exchange adjustments	(0.5)	(0.3)	(6.3)	(7.1)
At end of year	11.7	6.7	205.4	223.8
Net book value at 31st March 1998	151.2	10.3	315.0	476.5
Net book value at 31st March 1997	110.0	9.9	234.5	354.4
Historical cost at 31st March 1998	167.7	17. <del>4</del>	520.4	705.5
Accumulated historical depreciation	31.3	7.1	205.4	243.8
Historical net book value at 31st March 1998	136.4	10.3	315.0	461.7
i iistoricai ilet buuk value at 31st March 1770	130.4	10.3	313.0	401./

The net book value of tangible fixed assets includes £2.1 million (1997 £ nil) in respect of assets held under finance leases. Freehold land and buildings of £54.6 million included above are not depreciated.

for the year ended 31st March 1998

IIb Parent company				
	Freehold			
	land &	Short	Plant &	
	buildings	leasehold	machinery	Total
	£ million	£ million	£ million	£ million
Cost / Valuation				
At beginning of year	47.0	1.3	93.3	141.6
Purchases	0.8	_	6.8	7.6
Disposals	(0.1)	_	(5.7)	(5.8)
Revaluations	(1.8)			(1.8)
At end of year	45.9	1.3	94.4	141.6
Depreciation				
At beginning of year	1.8	0.4	51.0	53.2
Charge for the year	0.8	0.1	7.0	7.9
Disposals			(5.1)	(5.1)
At end of year	2.6	0.5	52.9	56.0
Net book value at 31st March 1998	43.3	0.8	41.5	85.6
Net book value at 31st March 1997	45.2	0.9	42.3	88.4
Historical cost at 31st March 1998	48.4	1.8	94.4	144.6
Accumulated historical depreciation	10.3	1.1	52.9	64.3
Historical net book value at 31st March 1998	38.1	0.7	41.5	80.3

Freehold land and buildings of £31.1 million included above are not depreciated.

#### IIc Asset revaluations

In September 1997 a property at 78,Hatton Garden,London was revalued by the directors to an open market value of £21.0 million.

Group freehold land and buildings and short leasehold,having a total valuation of £55.2 million (parent company £21.1 million) and £0.1 million (parent company £0.1 million) respectively, were included in the asset revaluations carried out by Jones Lang Wootton, Chartered Surveyors,independent professional valuers,in March 1995. The basis used was open market value for existing use or depreciated replacement cost whichever was considered the more appropriate basis in accordance with the RICS Statement of Asset Valuation Practice and Guidance Notes. Included were assets valued at depreciated replacement cost of £23.0 million in the group and £4.7 million in the parent company (1997 £23.8 million and £4.7 million respectively).

for the year ended 31st March 1998

# 12 Fixed assets – investments12a Group

	Share of			Investments		
	net assets of	Loans to	Investment in	listed on		
	Cookson Matthey	Cookson Matthey	other associated	stock exchanges	Unlisted	
	Ceramics plc	Ceramics plc	undertakings	overseas	investments	Total
	£ million	£ million	£ million	£ million	£ million	£ million
At beginning of year	(54.0)	130.0	5.0	2.0	1.2	84.2
Additions	_	_	1.1	_	_	1.1
Disposals	_	_	(1.0)	_	_	(1.0)
Transfer on acquisition as subsidiar y	67.I	(130.0)	(0.9)	_	_	(63.8)
Transfer to short term investments	_	_	_	(2.0)	_	(2.0)
Goodwill written off	(1.2)	_	_	_	_	(1.2)
Exchange adjustments	(5.3)	_	(0.5)	_	_	(5.8)
Losses retained for the year	(6.6)		(0.7)			(7.3)
At end of year			3.0	_	1.2	4.2

The market value of investments listed on overseas stock exchanges was £ nil (1997 £5.2 million).

#### 12b Parent company

				Cost of	
	Investment in	Loans to	Investment in	investment in	
	Cookson Matthey	Cookson Matthey	other associated	subsidiary	
	Ceramics plc	Ceramics plc	undertakings	undertakings	Total
	£ million	£ million	£ million	£ million	£ million
At beginning of year	36.3	130.0	2.2	1.1	169.6
Additions	_	_	_	103.5	103.5
Disposals	_	_	(0.2)	(0.3)	(0.5)
Transfer to subsidiary undertaking	_	_	_	(0.6)	(0.6)
Transfer on acquisition as subsidiary	(36.3)	(130.0)	(2.0)	104.9	(63.4)
At end of year		-	-	208.6	208.6

The principal subsidiary undertakings are shown on page 68.

#### 12c Associated undertakings

		holding of	Principal
	Issued	ordinary	operating
	share capital	share capital	country
		%	
Arora-Matthey Limited	INR 19,920,000	40	India
KonserQLimited*	£1,001,000	50	England
AnorMED Inc.	C\$43,389,139	25	Canada
Oximet SrL	ITL 735,000,000	33	Italy

Percentage

Matthey Pharmaceutical Alkaloids, L.L.C., operating in the USA, has members' capital of US\$730,000 of which the group has a 50% holding.

The group's cost of investment in associated undertakings amounted to £1.3 million (1997 £77.5 million), parent company £ nil (1997 £168.5 million).

The principal operating country is also the country of incorporation for each associated undertaking.

<sup>\*</sup>Investment held by parent company.

for the year ended 31st March 1998

#### 13 Transactions with related parties

The group's related parties are its associated undertakings described in note 12c. Johnson Matthey HICOM Sdn.Bhd.and Cookson Matthey Ceramics plc were associated undertakings and related parties until 31st December 1997 and 6th February 1998 respectively when they became subsidiaries.

During the period to 6th February 1998 the group supplied precious metals to a value of £14.2 million to Cookson Matthey Ceramics plc, which was a joint venture ceramics materials business with Cookson Group plc, and management services amounting to £0.5 million. The group purchased £0.6 million of gold and rhodium resinates and other materials.

During the period to 31st December 1997 the group supplied precious metals of £0.6 million to Johnson Matthey HICOM Sdn.Bhd., and made service charges of £0.1 million.

During the year the group supplied precious metals to a value of £48,000 to Arora-Matthey Limited.

There were no transactions with KonserQ Limited during the year.

During the year the group made service charges of £124,000 to AnorMED Inc. Total balances receivable from AnorMED Inc. at 31st March 1998 were £79,000.

During the year the group supplied finished opiate products to a value of £138,000 to Matthey Pharmaceutical Alkaloids,L.L.C. The group purchased fixed assets at a cost of £31,000 which it then transferred to Matthey Pharmaceutical Alkaloids,L.L.C. on a finance lease agreement. For this and other finance lease agreements capital repayments of £28,000 and income of £84,000 were received. Total balances receivable from Matthey Pharmaceutical Alkaloids,L.L.C. at 31st March 1998 were £1.9 million which includes the finance lease capital debtor under one year of £31,000 and over one year £827,000.

#### 14 Stocks

	Group		Parent company	
	1998	1997	1998	1997
	£ million	£ million	£ million	£ million
Raw materials and consumables	43.5	20.9	6.0	4.9
Work in progress – precious metals	105.8	107.4	87.7	89.7
– other	35.7	28.4	5.7	4.8
Finished goods and goods for resale	60.5	28.6	4.4	7.8
Total stocks	245.5	185.3	103.8	107.2

The group also holds customers' materials in the process of refining and fabrication and for other reasons. Parent company precious metals includes net metal lent to subsidiary and associated undertakings.

for the year ended 31st March 1998

IF Debters				
15 Debtors	G	Group	Parent	company
	1998	1997	1998	1997
	£ million	£ million	£ million	£ million
Debtors:due within one year				
Trade debtors	242.6	144.3	42.0	32.9
Amounts owed by subsidiary undertakings	_	_	418.3	394.0
Amounts owed by associated undertakings	1.1	3.4	0.1	2.2
Other debtors	25.5	15.4	6.7	7.0
Prepayments and accrued income	24.0	16.1	6.6	6.3
	293.2	179.2	473.7	442.4
Debterredue effer one year				
Debtors:due after one year	82.2	71.4	82.2	71. <del>4</del>
Prepaid pensions Amounts owed by subsidiary undertakings	62.2	71.4	139.3	0.5
Finance lease receivable from associated undertaking	0.8	0.9	137.3	0.5
Other debtors	2.5	0.8	_	_
	85.5	73.1	221.5	71.9
16 Borrowings and finance leases				
		Group		company
	1998 £ million	1997 £ million	1998 £ million	1997 £ million
Borrowings and finance leases falling due after more than one y Bank and other loans repayable by instalments	vear			
After five years	0.3	_	_	_
From two to five years From one to two years	0.7	_	_	_
Bank and other loans repayable otherwise than by instalments	0.5	_	_	_
6.36% US Dollar Bonds 2006	59.7	60.9	59.7	60.9
Other after five years	5.1	5.2	<i>37.1</i>	-
From two to five years	25.2	10.7	25.2	7.4
From one to two years	54.1	4.9	54.1	_
Finance leases repayable from one to five years	1.7	_	_	_
Borrowings and finance leases falling due after more than one year	147.3	81.7	139.0	68.3
Borrowings and finance leases falling due within one year				
Bank and other loans	141.2	24.2	56.1	2.2
Redeemable preference shares	_	100.0	-	_
Finance leases	0.4			
Borrowings and finance leases falling due within one year	141.6	124.2	56.1	2.2
Total borrowings and finance leases	288.9	205.9	195.1	70.5
Less cash and deposits	63.8	62.2	0.7	19.1
Net borrowings and finance leases	225.1	143.7	194.4	51.4

Bank and other loans include  $\pounds$  nil (1997 £1.5 million) secured on the assets of a subsidiary undertaking. The loans are denominated in various currencies and bear interest at commercial rates. The aggregate amount of loans which are repayable by instalments, any of which fall due for payment after five years, is £0.8 million (1997 £ nil).

for the year ended 31st March 1998

#### 17 Precious metal leases

Precious metal leases are rental and consignment stock arrangements under which banks provide the group with precious metals for a specified period and for which the group pays a fee. The group holds sufficient precious metal stocks to meet all the obligations under these lease arrangements as they come due.

#### 18 Other creditors

		Group		Parent company	
		1998	1997	1998	1997
		£ million	£ million	£ million	£ million
Amounts falling due within one year					
Trade creditors		138.7	74.7	20.0	14.0
Amounts owed to subsidiary undertakings		_	_	126.3	127.0
Amounts owed to associated undertakings		_	0.1	_	_
Current corporation tax		13.5	22.7	11.4	7.7
Other taxes and social security costs		6.5	4.5	1.6	1.5
Payment due for acquisitions (note 26)		1.5	2.0	1.5	2.0
Other creditors		31.2	22.3	4.1	5.2
Accruals and deferred income		70.7	44.2	23.9	14.5
Dividends		27.4	23.4	27.4	23.4
Total other creditors falling due within one year		289.5	193.9	216.2	195.3
Amounts falling due after more than one year					
Amounts owed to subsidiary undertakings		_	_	0.2	0.2
Other creditors		2.7	0.8	-	_
Total other creditors falling due after more than	one year	2.7	0.8	0.2	0.2
-	-				
19 Provisions for liabilities and charges					
19a Group				Deferred	
	Rationalisation	Retirement	Other	taxation	
	provisions	benefits	provisions	(note 20)	Total
	£ million	£ million	£ million	£ million	£ million
At beginning of year	_	19.2	8.2	22.6	50.0
Exchange adjustments	_	(0.5)	(0.2)	(0.3)	(1.0)
Business acquisitions	2.0	6.0	4.2	0.2	12.4
Business disposals	_	(1.1)	_	_	(1.1)
Utilised	(1.1)	(2.2)	(2.0)	_	(5.3)
Charge for year	4.9	3.9	0.8	1.9	11.5
At end of year	5.8	25.3	11.0	24.4	66.5
19b Parent company					
-				Deferred	
	Rationalisation	Retirement	Other	taxation	
	provisions	benefits	provisions	(note 20)	Total
	£ million	£ million	£ million	£ million	£ million
At beginning of year	_	2.9	2.3	4.1	9.3
Utilised	_	(0.1)	_	_	(0.1)
Charge for year	0.2	0.2	1.3	(1.7)	
At end of year	0.2	3.0	3.6	2.4	9.2

for the year ended 31st March 1998

#### 20 Deferred taxation

	Group		Parent company		
		Full potential		Full potential	
	Provision	liability	Provision	liability	
	£ million	£ million	£ million	£ million	
Timing differences on fixed assets	24.8	27.6	2.8	2.8	
Timing differences on stock	(0.4)	(0.4)	(0.4)	(0.4)	
Deferred capital gains	_	2.9	_	2.9	
Advance corporation tax not utilised		(14.5)		(14.5)	
	24.4	15.6	2.4	(9.2)	

No account has been taken of taxation which would be payable if the retained profits of overseas subsidiary and associated undertakings were distributed.

#### 21 Called up share capital

l 998 Allotted issued		1997		
			Allotted issued	
uthorised	fully paid	Authorised	fully paid	
£ million	£ million	£ million	£ million	
0.4	0.3	0.4	0.3	
291.6	217.5	291.6	216.9	
292.0	217.8	292.0	217.2	
	0.4 291.6	Allotted issued fully paid £ million  0.4  291.6  217.5	Authorised £ million         fully paid £ million         Authorised £ million           0.4         0.3         0.4           291.6         217.5         291.6	

The number of ordinary shares in issue at 31st March 1998 was 217,470,103 (1997 216,894,628).

During the year ended 31st March 1998,the trustees of the company's employee share participation schemes subscribed for a total of 206,006 ordinary shares at market prices.In addition,current and former senior executives exercised their options to subscribe for a total of 369,469 ordinary shares at prices from 276.53 pence per share to 608.50 pence per share.

Since 31st March 1998 three executives and former executives have exercised options to subscribe for 130,060 ordinary shares. As a consequence, a further £577,657 has been credited to the share premium account. Therefore, as at 31st May 1998 after completing these allotments there were 217,600,163 ordinary shares in issue.

Certain directors and senior executives have options under the company's executive share option schemes giving them the right to subscribe for a total as at 31st May 1998 of 5,264,648 ordinary shares, exercisable at various times up to the year 2008 at prices from 276.53 pence per share to 632.00 pence per share.

With the exception of 3.5% cumulative preference shares, the company has no non-equity share capital.

for the year ended 31st March 1998

#### 22 Reserves 22a Group

	Share		Associated	Profit &
	premium	Revaluation	undertakings'	loss
	account	reserve	reserves	account
	£ million	£ million	£ million	£ million
At beginning of year	99.6	17.3	(11.5)	142.5
Exchange adjustments	-	(0.2)	(5.9)	(17.5)
Premium on shares issued	2.2	_	_	-
Retained profit / (loss) for the period	-	_	(7.4)	73.3
Goodwill written off in respect of acquisitions and joint ventures	-	_	(1.2)	(14.9)
Goodwill written back on disposals	_	_	_	1.0
Transfers and other movements		(1.6)	27.6	(27.8)
At end of year	101.8	15.5	1.6	156.6

At 31st March 1998, the cumulative amount of goodwill, net of goodwill relating to disposals, charged against profit and loss account was £171.4 million (1997 £148.0 million), and against associated undertakings' reserves £ nil (1997 £8.3 million).

In the group accounts, £4.5 million of net exchange gains (1997 £12.2 million) on foreign currency borrowings have been offset in reserves against exchange losses on the translation of the related net investment in overseas subsidiaries.

#### 22b Parent company

Share		Profit &
premium	Revaluation	loss
account	reserve	account
£ million	£ million	£ million
99.6	6.7	277.8
2.2	_	_
_	_	47.9
_	_	(0.3)
	(1.4)	(0.4)
101.8	5.3	325.0
	premium account £ million  99.6 2.2  — —	premium account         Revaluation reserve           ₤ million         ₤ million           99.6         6.7           2.2         −           −         −           −         −           −         −           −         (1.4)

The parent company's profit for the financial year was £86.6 million (1997 £48.7 million).

for the year ended 31st March 1998

#### 23 Commitments, guarantees and contingent liabilities

75	Group		Parent company	
	1998	1997	1998	1997
	£ million	£ million	£ million	£ million
Commitments				
Future capital expenditure contracted but not provided	3.0	1.8	0.3	_
Annual commitments under operating leases				
Leases of land and buildings terminating				
Within one year	0.8	0.5	_	_
In one to five years	5.1	3.1	2.4	_
Over five years	1.8	3.0	0.1	2.5
Other leases terminating				
Within one year	0.6	0.6	0.1	0.2
In one to five years	2.3	1.7	0.6	0.6
Guarantees				
Guarantees of subsidiary undertakings' borrowings	_	_	63.8	118.6
Guarantees of associated undertakings' bor rowings	_	2.7	_	2.7
Other guarantees	2.0	1.1	0.7	1.1

#### **Contingent liabilities**

In August 1993, General Motors Corporation (GM) issued proceedings against Johnson Matthey in the United States alleging breach of contract and various other matters. Johnson Matthey vigorously rejects all GM's allegations which it does not believe have any substance and has filed several counterclaims. The directors are of the opinion, relying on legal advice, that GM's allegations will not prevail.

#### 24 Gross cash flows

#### 24a Returns on investments and servicing of finance

	1998	1997
	£ million	£ million
Interest received from associated undertakings	9.6	10.2
Interest received	5.9	3.5
Interest paid	(12.9)	(7.5)
Net cash inflow for returns on investments and servicing of finance	2.6	6.2
24b Capital expenditure and financial investment		
	1998	1997
	£ million	£ million
Purchase of tangible fixed assets	(72.4)	(81.1)
Finance lease to associated undertaking	_	(0.9)
Sale of tangible fixed assets	2.7	0.9
Sale of fixed asset investments	_	2.9
Sale of short term investments	5.0	0.6
Net cash outflow for capital expenditure and financial investment	(64.7)	(77.6)

for the year ended 31st March 1998

24. Cook flows on convictions and	diam la					
24c Cash flows on acquisitions and o	aisposais			1998		1997
			£ million	£ million	£ million	£ million
Investment in subsidiary undertakings (no	ote 26)			(65.8)		_
Cash acquired with subsidiary undertaking				7.8		_
Purchase of businesses (note 26)	,			(6.6)		(25.9)
Investment in associated undertakings				_		(1.3)
				(64.6)		(27.2)
Disposal of subsidiary undertakings (note	27)		17.7		_	, ,
Sale of investment in associated undertak	kings (note 27)		2.8		2.0	
				20.5		2.0
Net cash outflow for acquisitions an	d disposals			(44.1)		(25.2)
24d Management of liquid resources	S			1998		1997
				£ million		£ million
Cash paid into term deposits of less than				(2.0)		(6.6)
Cash withdrawn from term deposits of le				11.0		5.8
Net cash inflow / (outflow) from ma	nagement of	liquid resourc	es	9.0		(0.8)
24e Financing						
2-10 I mancing				1998		1997
			£ million	£ million	£ million	£ million
Issue of ordinary share capital				2.8		3.2
(Decrease) / increase in borrowings fallin	g due within o	ne year	(67.0)		9.8	
Increase in borrowings falling due after more than one year			69.4		35.9	
Capital element of finance lease rental pa	yments		(0.1)		_	
				2.3		45.7
Net cash inflow from financing				5.1		48.9
25 Analysis of net debt		Borrowings	Borrowings	Borrowings		
	Cash at	due within	due within	due after		
	bank and	one year	one year	more than	Finance	
	in hand	- overdrafts	- other	one year	leases	Total
	£ million	£ million	£ million	£ million	£ million	£ million
At beginning of year Cash flow	62.2	(11.0)	(113.2)	(81.7)	_	(143.7)
From cash and overdrafts	13.4	(14.6)	-	_	-	(1.2)
From borrowings and finance leases	_	_	67.0	(69.4)	0.1	(2.3)
From term deposits	(9.0)					(9.0)
Net cash flow	4.4	(14.6)	67.0	(69.4)	0.1	(12.5)
Acquisitions and disposals	0.2	_	(80.5)	(1.9)	(0.1)	(82.3)
Other non cash changes	_	_	(5.3)	5.3	(2.1)	(2.1)
Effect of foreign exchange rate changes	(3.0)	0.5	15.9	2.1		15.5
At end of year	63.8	(25.1)	(116.1)	(145.6)	(2.1)	(225.1)
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for the year ended 31st March 1998

#### **26 Acquisitions**

#### **Cookson Matthey Ceramics plc**

On 6th February 1998 the group acquired the 50% of Cookson Matthey Ceramics plc (CMC) which it did not already own from Cookson Group plc for £65 million. In addition the group assumed responsibility for all of CMC's borrowings which totalled £71.7 million net. This has been accounted for by acquisition accounting. The Ceramic Materials Division was formed from CMC.

Johnson Matthey's 50% share of CMC's results prior to the acquisition were as follows:		44 weeks ended February 1998	Year ended 31st March 1997
		£ million	£ million
Turnover		128.3	156.9
Net revenues		68.3	86.9
Operating profit		6.3	15.3
(Loss) / profit before tax		(4.2)	3.0
Loss after tax and minority interests		(6.4)	(1.0)
Capital expenditure		5.9	14.8
Depreciation		4.2	5.0
The assets and liabilities acquired were:	Book values		Fair values
	immediately	Fair value	at time of
prio	or to acquisition	adjustments £ million	acquisition
	£ million	£ million	£ million
Fixed assets	121.2	(7.5)	113.7
Investments	1.4	-	1.4
Stocks	59.4	(0.1)	59.3
Debtors and prepayments	87.2	(0.4)	86.8
Cash and bank overdrafts	8.7	(0.2)	8.5
Liquid resources, borrowings and finance leases	(80.2)	-	(80.2)
Precious metal leases	(4.1)	_	(4.1)
Rationalisation provisions	(2.0)	_	(2.0)
Creditors and other provisions	(60.1)	(8.0)	(60.9)
Minority interests	(5.7)		(5.7)
Total net assets	125.8	(9.0)	116.8
Less transferred from associated undertakings			(62.9)
Goodwill on acquisition			11.5
			65.4
Satisfied by			£ million
Purchase consideration			65.0
Costs incurred – accrued			0.4
			65.4

The principal fair value adjustments to fixed assets are in respect of assets relating to previously shared sites which CMC are now vacating and accounting differences.

Since acquisition CMC has contributed £10.2 million to the group net cash flow from operating activities, received £0.5 million in respect of returns on investments and servicing of finance, paid £0.3 million in respect of tax, and £2.7 million in respect of capital expenditure and financial investment. Prior to acquisition CMC contributed £9.6 million to returns on investments and servicing of finance.

Prior to acquisition CMCincreased its shareholding in one of its subsidiaries and adjusted its goodwill for deferred consideration in another. The group's share of the goodwill arising on these transactions amounted to £1.2 million.

for the year ended 31st March 1998

#### 26 Acquisitions (continued)

#### Printed circuit board operations of Universal Circuits Inc.

On 23rd January 1998 the group acquired the printed circuit board operations of Universal Circuits Inc. located in Buffalo, Minnesota in the US for £6.4 million, with £0.3 million deferred until April 1998. The fair value of fixed assets acquired was £3.7 million and stocks £0.2 million, giving goodwill of £2.5 million. This has been accounted for by acquisition accounting.

#### Johnson Matthey HICOM Sdn.Bhd.

On 31st December 1997 the group purchased a further 30% of Johnson Matthey HICOM Sdn.Bhd. for £0.8 million,increasing the group's holding to 80%. This has been accounted for by acquisition accounting. The fair value of the net assets at acquisition was £1.1 million and the value previously included in associated undertakings immediately prior to the purchase was £0.9 million, resulting in goodwill of £0.6 million. Bank overdrafts acquired were £0.7 million and other loans were £2.1 million.

#### Argentina joint venture formed in the year ended 31st March 1997

On 26th November 1996 the group entered into an agreement with Magneti Marelli S.p.A.to set up a joint venture company to manufacture autocatalysts in Argentina. As part of this agreement the group agreed to purchase Magneti Marelli's autocatalyst plant in Turin, parts of which have been utilised in the construction of the factory in Argentina. The consideration was £2.3 million, of which £0.3 million was paid immediately, £0.5 million paid this year and £1.5 million was still outstanding at the year end. The fair value of the equipment purchased was originally estimated at £1.0 million but has been revised to £0.6 million, and costs have been revised from £0.3 million to £0.2 million resulting in additional goodwill of £0.3 million.

#### 27 Disposals

#### Otavi Minen AG

On 31st March 1998 the group sold Otavi Minen AG, previously part of CMC.

Net assets disposed of were:	£ million
Tangible fixed assets	12.7
Stocks	3.2
Debtors and prepayments	4.7
Cash at bank and in hand	3.5
Creditors and provisions	(4.6)
Minority interests	(2.2)
Goodwill previously written off to reserves	1.0
	18.3
Profit on disposal	1.8
	20.1
Satisfied by	£ million
Cash	21.2
Costs incurred – accrued	(1.1)
	20.1

#### AnorMED Inc.

During the year Johnson Matthey disposed of part of its investment in AnorMEDInc., an associated undertaking, which reduced the group's holding from 40% to 25%. Net proceeds on disposal of shares were £2.4 million resulting in a gain of £1.6 million, and a further gain of £1.0 million was made when AnorMEDInc. issued shares at a premium for cash and Johnson Matthey did not take up its share.

#### KonserQ Limited

This associated undertaking is in the process of being wound up and the group received £0.4 million in the year.

# Principal Subsidiary and Associated Undertakings

	Country of incorporation		Country of incorporation
Europe		Australia and New Zealand	
S.A. Johnson Matthey N.V.	Belgium	Johnson Matthey Limited	Australia
Johnson Matthey S.A.	France	Johnson Matthey (Aust.)	
Matthey Beyrand & Cie S.A.(80%)	France	Limited	Australia
Johnson Matthey GmbH	Germany	Johnson Matthey (NZ) Limited	New Zealand
Svenska Emissionsteknik AB	Sweden		
Johnson Matthey &			
Brandenberger AG	Switzerland		
Cookson Matthey Ceramics S.A.	Spain	Asia	
Almiberia S.A.	Spain	Johnson Matthey Hong Kong	
Johnson Matthey BV	Netherlands	Limited	Hong Kong
Johnson Matthey Italia S.p.A.	Italy	*Arora-Matthey Limited (40%)	India
†Johnson Matthey Ceramics plc	UK	Johnson Matthey Japan Limited	Japan
†Matthey Holdings Limited	UK	Ryoka Matthey Corporation (50%)	Japan
Johnson Matthey Ceramics &		† Johnson Matthey Sdn.Bhd.(80%)	Malaysia
Materials Limited	UK	Johnson Matthey (Singapore)	
		Pte Limited	Singapore
		Johnson Matthey Ceramics	
		(Asia)Pte Ltd	Singapore
North America		Johnson Matthey Korea Limited	South Korea
Johnson Matthey Limited	Canada	Johnson Matthey Taiwan Co. Limited	Taiwan
Johnson Matthey de Mexico, S.A.de C.V.	Mexico		
Johnson Matthey Holdings,Inc.	USA		
Johnson Matthey Investments,Inc.	USA		
Johnson Matthey Inc.	USA	South Africa	
Johnson Matthey Catalog		Johnson Matthey (Pty) Limited	South Africa
Company Inc.	USA		
Johnson Matthey Electronics,Inc.	USA		
The Alta Group Inc.	USA		
Johnson Matthey Advanced Circuits,Inc.	USA	South America	
Johnson Matthey Semiconductor		† Johnson Matthey Argentina S.A.	Argentina
Packages,Inc.	USA	Microcina Comercial Vendas Ltda	Brazil
Johnson Matthey Japan Autocatalyst,Inc.	USA	Ca Venezolana da Pigmentos (51%)	Venezuela

Except where otherwise stated, all companies are wholly owned.

All the subsidiary and associated undertakings are involved in the principal activities of the group.

All the above undertakings operate principally in their country of incorporation.

<sup>\*</sup>Associated undertakings (see note 12c on page 58).

<sup>†</sup>Investments held by parent company.

### Shareholder Information

#### **Shareholder Analysis**

Analysis of ordinary shareholders as at 31st March 1998

			Number	
By category			of shares	Percentage
Other corporate bodies			9,401,163	4.32
Individuals			11,498,033	5.29
Investment and unit trusts			27,344,777	12.58
Insurance companies			35,301,650	16.23
Pension funds			133,924,480	61.58
			217,470,103	100.00
By size of holding	Number		Number	
	of holdings	Percentage	of shares	Percentage
1-1,000	4,640	54.35	2,196,576	1.01
1,001-10,000	3,052	35.75	7,809,572	3.59
10,001-100,000	528	6.19	17,566,580	8.08
100,001-1,000,000	271	3.17	81,366,012	37.41
1,000,001-5,000,000	44	0.52	76,742,584	35.29
5,000,001 and over	2	0.02	31,788,779	14.62
	8,537	100.00	217,470,103	100.00

#### **Low Cost Share Dealing Service**

A Low Cost Share Dealing Service is available through the SBC Warburg Dillon Read Corporate Share Dealing Service provided by The Share Centre. This service allows shareholders to buy and sell Johnson Matthey Plc shares in a simple and low cost manner. For further details contact The Share Centre Ltd., PO Box 1000, Tring, Hertfordshire HP23 5AN. (Telephone: 01442 890844).

#### **Corporate Personal Equity Plans**

The company has in place both a General and a Single Company Personal Equity Plan for UK residents. For further information please contact the Plan Manager, Bradford & Bingley (PEPs) Limited at PO Box 1, Taunton Street, Shipley, West Yorkshire BD18 3YR. (Telephone: 01274 555700).

#### **Share Price Information – UK Taxation**

For capital gains tax purposes the mid-market price of the company's ordinary shares on 31st March 1982 was 253 pence.

### Five Year Record

-					
	1994 £ million	1995 £ million	1996 £ million	1997 £ million	1998 £ million
Turnover					
Parent and subsidiaries	1,955.0	2,177.8	2,528.9	2,423.2	3,138.8
Cookson Matthey Ceramics plc (50%)	_	97.1	156.7	156.9	128.3
Total	1,955.0	2,274.9	2,685.6	2,580.1	3,267.1
Operating profit	81.6	100.4	111.0	116.3	134.7
Profit on part disposal of investment in AnorMEDInc.	_	_	_	_	2.6
Profit / (loss) on termination of operations	(6.7)	_	-	_	1.8
Fundamental restructuring	(5.0)	(0.7)			
Profit before interest	69.9	99.7	111.0	116.3	139.1
Net interest	( <del>4</del> .6)	(4.3)	(8.8)	(8.0)	(9.0)
Profit before taxation	65.3	95.4	102.2	108.3	130.1
Taxation	(20.7)	(30.5)	(30.5)	(29.2)	(25.2)
Profit after taxation	44.6	64.9	71.7	79.1	104.9
Equity minority interests	(0.2)	(1.0)	(1.7)	(1.2)	(0.3)
Profit attributable to shareholders	44.4	63.9	70.0	77.9	104.6
Dividends	(21.8)	(25.9)	(31.4)	(33.6)	(38.7)
Profit retained	22.6	38.0	38.6	44.3	65.9
Earnings per ordinary share – FRS 3*	23.lp	32.9 <sub>p</sub>	34.4p	36.0 <sub>P</sub>	48.2ր
Earnings per ordinary share excluding exceptional items*	27.0p	33.2p	34.4p	36.0p	44.3p
Dividend per ordinary share	11.4p	13.5p	14.5p	15.5p	17.8 <sub>F</sub>
Interest cover (times)	17.7	23.3	12.6	14.5	15.5
(Operating profit before exceptional items / net interest)					
Dividend cover – net (times) (Earnings per ordinary share / dividend per ordinary share)	2.0	2.4	2.4	2.3	2.7
Dividend cover excluding exceptional items – net (times (Earnings per ordinary share excluding exceptional items / dividend per ordinary share)	s) 2.4	2.5	2.4	2.3	2.5

<sup>\*</sup>The earnings per ordinary share for 1995 and prior years have been adjusted for the bonus element in the 1 for 8 rights issue made on 19th September 1995. The actual cum rights price on the last day of quotation (13th September 1995) was 581 pence per share.

# Five Year Record

	1994 £ million	1995 £ million	1996 £ million	1997 £ million	1998 £ million
Summary Balance Sheet					
Assets employed:					
Tangible fixed assets	323.1	272.7	338.8	354.4	476.5
Investments	1.1	70.9	100.4	84.2	4.2
Stocks	156.9	153.6	197.2	185.3	245.5
Debtors	207.2	190.9	232.2	252.6	381.1
Other creditors and provisions	(242.1)	(207.5)	(284.2)	(267.5)	(382.8)
	446.2	480.6	584.4	609.0	724.5
Financed by:					
Net borrowings and finance leases	76.1	102.4	134.2	143.7	225.1
Shareholders' funds	368.7	380.2	450.9	465.I	493.3
Equity minority interests	1.4	(2.0)	(0.7)	0.2	6.1
Capital employed	446.2	480.6	584.4	609.0	724.5
Cumulative goodwill	50.5	57.5	150.3	156.3	171.4
Capital expenditure	65.4	48.2	52.1	82. I	77.2
Depreciation	30.7	27.8	33.1	40.6	45.5
Average number of employees	6,287	4,996	5,624	7,452	9,596
Gearing	20.6%	27.1%	29.8%	30.9%	45.1%
(Net borrowings and finance leases / shareholders'					
funds and equity minority interests)					
Return on capital employed	18.3%	20.9%	19.0%	19.1%	19.2%
(Operating profit before exceptional items / capital employed)					
Return on assets	16.9%	19.4%	17.4%	15.5%	16.8%
(Operating profit before exceptional items /					
average capital employed and cumulative goodwill)					

# Company Details

#### Registered and Head Office

2-4 Cockspur Street
Trafalgar Square
London SWIY 5BQ

Telephone:0171 269 8400

Internet address:http://www.matthey.com

E-mail:jmpr@matthey.com

Registered in England - Number 33774

#### **Professional Advisers**

#### **Auditor**

KPMG Audit Plc 8 Salisbury Square London EC4Y 8BB

#### Registrars

Lloyds Bank Registrars
The Causeway

Worthing

West Sussex BN99 6DA Telephone:01903 502541

#### Lawyers

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Exchange House 50 Victoria Embankment

Primrose Street Blackfriars

London EC2A 2HS London EC4Y 0DX

#### **Brokers**

SBC Warburg Dillon Read Credit Suisse First Boston de Zoete & Bevan

I Finsbury Avenue I Cabot Square
London EC2M 2PP London E14 4QJ

#### **Merchant Bankers**

J. Henry Schroder & Co. Greenhill &Co.

120 Cheapside Regent Gate

London EC2V 6DS 56-58 Conduit Street

London WIR 9FD

### Financial Calendar

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#### 26th June

Final ordinary dividend record date

#### 14th July

107th Annual General Meeting (AGM)

#### 3rd August

Payment of final dividend subject to declaration at the AGM

#### Ist October

Payment of dividend on 3.5% cumulative preference shares

#### 25th November

Announcement of results for six months ending 30th September 1998

#### 1999

#### Ist February

Payment of interim dividend on ordinary shares

#### Ist April

Payment of dividend on 3.5% cumulative preference shares

#### June

Announcement of results for year ending 31st March 1999

Johnson Matthey's commitment to care for the environment is embedded in its corporate culture and extends through every operational activity, the processes employed and the materials used. Production of this year's Annual Report is no exception. The laminate on the cover was made using a process free of toxic emissions, the introductory pages are printed on paper manufactured in Switzerland in compliance with the world's most stringent environmental standards, and the accounts section pages are printed on elemental chlorine free paper produced in Germany from sustainable forests.

Designed and typeset by Liebling & Cross