



Platinum

Platinum

Autocatalyst

Purchases of platinum for use in autocatalysts surged by an impressive 600,000 oz in 2003 to 3.19 million oz, a year-on-year increase of 23 per cent. A jump in purchases of platinum by North American auto makers was responsible for approximately half of this growth. In 2002 US-based car companies used a significant volume of platinum from inventories but by 2003 stocks had been largely depleted and purchases of platinum climbed to more closely reflect its underlying use.

In Europe, another strong year of diesel car sales coupled with the pending tightening of emissions regulations helped to push autocatalyst platinum demand up by 11 per cent. The retrofitting of catalysts and particulate filters to heavy-duty diesel trucks boosted Japanese purchases of the metal, whilst rapid growth in light vehicle sales in China and India raised demand in the Rest of the World.

Europe

In 2003 purchases of platinum by auto makers in Europe rose by 11 per cent to 1.34 million oz. Several factors contributed to the growth: strongly rising diesel car sales, tightening emissions legislation, and changes to the overall ratio of pgm use.

Consumer demand for diesel powered cars in Europe continued to grow at a tremendous rate in 2003. Sales of diesel cars increased by more than 5 per cent, reaching 6.15 million vehicles, equivalent to more than 43 per cent of total new car registrations.

The impact of rising diesel car sales on platinum demand was compounded by the imminent introduction of the next round of European emissions legislation: Euro IV standards. These will apply to 2005 vehicle models onwards (both gasoline and diesel) and mandate very substantial cuts in emissions of all pollutants but particularly NOx, and additionally for diesels, particulate matter.

In 2003 many Euro IV compliant models were already available and the catalysts on some of these contained higher pgm loadings to meet the tougher standards. This was particularly true of the diesel sector. One strategy for achieving the new limits on NOx is to reduce diesel engine combustion temperatures (the formation of NOx being highly temperature dependent). This, however, results in

greater levels of CO being generated, which in turn can be managed by raising catalyst platinum loadings.

As elsewhere, European auto manufacturers have re-examined their current and likely future pgm use in light of the large premium that has evolved between the price of platinum and that of palladium over the last two years. Demand for pgm in 2003, however, was still being influenced by decisions to favour the use of platinum in gasoline autocatalysts that were made in 2000 and 2001 when the price of palladium spiked. Consequently, a proportion of the increase in platinum demand in 2003 was due to greater use of platinum-based catalysts rather than palladium-rich formulations on certain new vehicle models.

Japan

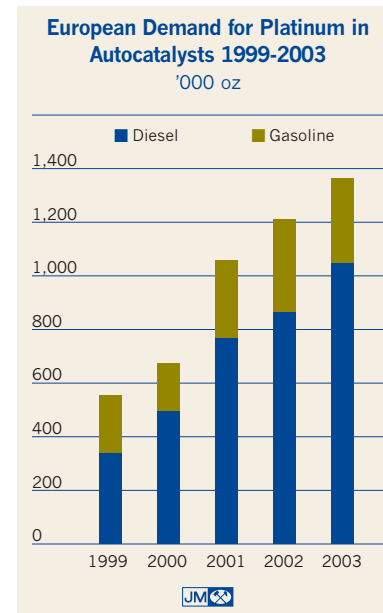
The Japanese vehicle industry purchased 510,000 oz of platinum in 2003, a jump of 80,000 oz (more than 18 per cent) compared with the previous year. Much of this surge in platinum demand occurred because of the introduction of legislation to control particulate matter emissions from heavy-duty diesel vehicles operating in the Tokyo metropolitan area. The regulation set tough new limits for particulate matter emissions for all heavy-duty trucks and buses. In essence, existing vehicles that did not meet the standards had to be fitted with either an oxidation catalyst or a diesel particulate filter (DPF), or had to be scrapped or sold outside Tokyo. Several neighbouring prefectures also introduced heavy-duty diesel retrofit rules based on the Tokyo example.

The Tokyo legislation applied from October 2003 and caused a rush to retrofit oxidation catalysts and DPF. A resulting shortage in the supply of catalyst substrates meant that the deadline for compliance was subsequently extended to January 2004. There was also a sharp increase in purchases of new, cleaner trucks as owners replaced ageing vehicles.

Short-term national regulations reducing particulate matter emissions from large trucks (over 12 tonnes) are due to come into effect in the autumn of 2004. These will be followed by tighter emissions regulations for all vehicles in 2005, including very stringent particulate matter and NOx limits for heavy-duty diesels. These have already led to the launch of new truck models fitted with oxidation catalysts and/or DPF.

Against these positive trends for platinum consumption, the 1 per cent fall in car production in Japan in 2003 had little impact.

Platinum Demand: Autocatalyst '000 oz		
	2002	2003
Europe	1,210	1,340
Japan	430	510
North America	570	880
Rest of the World	380	460
Total	2,590	3,190





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Surging sales of new cars in China helped to push up autocatalyst platinum demand by 21 per cent in the Rest of the World region in 2003.

North America

Purchases of platinum by the US auto industry surged by 54 per cent in 2003 to 880,000 oz, up from 570,000 oz the year before. A large proportion of this increase was due to the fact that US auto makers used quite substantial volumes of platinum from stocks in lieu of purchases in 2002 but, with inventories depleted, returned to the market for almost all of their metal requirements in 2003. Consequently, demand for platinum jumped.

Light vehicle sales in the USA surpassed most analysts' expectations in 2003, reaching 16.7 million units, a drop of less than 1 per cent compared with 2002. Importantly, however, sales of light trucks, notably sports utility vehicles, climbed by more than 3 per cent to almost 8.9 million as they continued to take market share from passenger cars. Light trucks now account for almost 54 per cent of all light vehicle sales in the USA. Because of their larger engine sizes light trucks generally require catalysts with larger volumes or higher pgm loadings than do cars.

Use of platinum-based catalyst systems also increased in the USA in 2003 as new vehicle models were launched, reflecting decisions on pgm use that were made when palladium was trading at a hefty premium to platinum. Naturally, given the reversal in the price relationship between the two metals, US auto makers are now seeking to migrate an increasing proportion of their future vehicle models to palladium-based catalysts.

It should be emphasised, however, that the big

three US-based auto makers do not have a uniform approach to catalyst development and pgm use. There are also considerable differences in strategy between the US auto companies and their overseas competitors that operate vehicle manufacturing plants in North America. There has not, therefore, been a universal swing in favour of using palladium-based catalysts at the expense of platinum across all manufacturers and vehicle models.

The position is further complicated by the phase in of Tier 2 (federal) and LEV 2 (California) emissions regulations, which begins in 2004. These require a reduction in NOx emissions of around 75 per cent compared to existing limits, as well as cuts in hydrocarbon (HC) emissions. In some instances this led to an increase in catalyst platinum loadings in 2003 as car companies launched Tier 2 compliant vehicle models ahead of the regulations.

Finally, US demand for platinum in autocatalysts was given a small boost in 2003 by the retrofitting of emission control equipment to heavy-duty diesel trucks and buses under a programme promoted by the Environmental Protection Agency (EPA).

Rest of the World

Platinum demand in the Rest of the World grew by a rousing 21 per cent or 80,000 oz to 460,000 oz in 2003. The single largest component of this growth was the phenomenal expansion of the Chinese car market. Sales of passenger cars soared to exceed 2 million vehicles, whilst the volume of cars manufactured in the country jumped to 2.07 million – an increase on 2002 of 72 per cent. The leap in new car sales was facilitated by a combination of rising incomes and easier access to credit.

The tightening of regulations covering car emissions continued to progress in China last year, which is following the European framework regarding vehicle emissions. Euro II standards were introduced in Beijing and Shanghai during the first quarter of 2003 and will be enforced nationwide from July 2004. Because of tax incentives, however, many vehicles sold outside the two largest cities in 2003 were already Euro II compliant. The more stringent Euro III emissions limits are expected to be introduced in Beijing and Shanghai in 2005, with the rest of the country following suit in 2008.

Indian vehicle production also grew strongly in 2003, light vehicle output rising by almost 19 per cent



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to just under 1 million cars and light trucks. Emissions regulations equivalent to Euro II have been introduced in several regions and will apply across the country from April 2005. Good growth in light vehicle production was also seen elsewhere in Asia (notably Thailand) as well as in Australia. Production in Brazil and Argentina edged higher but output in Mexico dropped by 14 per cent due to weaker domestic demand and lower exports to the USA.

Autocatalyst Recovery

Recovery of platinum from recycled autocatalysts increased by 14 per cent to an estimated 645,000 oz in 2003. Improvements in catalyst collection and recovery rates were seen in all regions, stimulated in part by the rising platinum price. Collection rates have also been rising as competition in the sector has become more intense, with several primary pgm smelters now utilising scrapped catalyst feedstock to supplement mine concentrate feed in order to maximise smelter throughput and efficiencies.

The fastest growth in the rate of recovery occurred in Europe, where cars fitted with catalysts accounted for a higher share of all scrapped vehicles. In addition, a greater emphasis has been placed on recycling of vehicles because of the European End of Life Vehicle legislation that comes into effect in 2005. The amount of platinum recovered from cars scrapped in Europe is estimated to have reached 110,000 oz in 2003, up by 22 per cent.

In volume terms, however, the largest rise in recovery was in the USA, where the estimated recovery of platinum jumped by 45,000 oz to 425,000 oz. This reflected higher catalyst recovery rates due to the rising platinum price and a change in the mix of pgm contained in scrapped catalysts. Recovery also increased in Japan and the Rest of the World, but total collection volumes in these regions were much smaller at 60,000 oz and 50,000 oz respectively.

Jewellery

Purchases of platinum for jewellery fabrication in 2003 fell by 13 per cent to 2.44 million oz, down from 2.82 million oz the year before. The decline was due to a significant drop in purchases of metal by both the Chinese and Japanese jewellery industries. Chinese demand slid from 1.48 million oz in 2002 to 1.2 million oz in 2003 as the rising platinum price cut profit

margins throughout the sector. In Japan, consumers increasingly turned to white gold in preference to more expensive platinum in the lower priced segments of the jewellery market. In addition, the volume of platinum recycled by the industry jumped, due in part to the bankruptcy of several manufacturers.

In Europe, sales of platinum jewellery continued to grow strongly in the UK but remained subdued elsewhere. In the USA, platinum jewellery lost ground at the lower-priced end of the market but retail sales improved in the high quality fashion and bridal sectors.

Europe

Demand for platinum from European jewellery manufacturers increased modestly in 2003, rising by 6 per cent overall to 170,000 oz, still some way below the peak of 190,000 oz in 2000. The outstanding performance again came from the UK jewellery market. The weight of platinum articles hallmarked in the UK in 2003 jumped by 30 per cent to nearly 83,000 oz, of which just over 17,000 oz were imported items. Platinum has rapidly gained market share in the UK bridal sector and the availability of non-bridal jewellery designs in platinum has also expanded.

Demand for platinum from German jewellery fabricators was weak in 2003, with export sales to countries such as the UK, the USA and Japan providing the only clear opportunities for growth for many companies. The German market for platinum jewellery remained depressed; platinum bridal jewellery held ground but sales in the fashion sectors continued to be pressured by competition from less expensive white metals including white gold, silver, and titanium.

The retail sales climate was similarly mixed for Italian jewellery manufacturers last year, many of which cited the rise and volatility of the platinum price as being problematic. As in Germany, sales of bridal rings provided a stable core of platinum demand but white gold and silver gained market share at the fashion end of the market. In addition, continuing efforts to make platinum products lighter to keep metal costs down affected demand. The Swiss jewellery industry reported a fall in sales of platinum watchcases in 2003 but an increase in sales of other platinum jewellery; consequently overall demand for the metal was little changed.

Platinum Demand: Autocatalyst Recovery '000 oz

	2002	2003
Europe	(90)	(110)
Japan	(55)	(60)
North America	(380)	(425)
Rest of the World	(40)	(50)
Total	(565)	(645)



Growth in demand for platinum from European jewellery manufacturers was largely driven by higher retail sales in the UK.





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Japan

Japanese purchases of platinum for jewellery manufacture dropped by 15 per cent in 2003 to 665,000 oz, the lowest level since the mid-1980s. The Japanese market for precious metal jewellery as a whole (platinum, gold and white gold) contracted further in 2003, with consumers still cautious about buying non-essential items.

The effect of lower retail sales on purchases of platinum was compounded by a high rate of inventory recycling. Retailers, wholesalers and fabricators continued to minimise their stock levels, and the liquidation of inventories from companies that exited the jewellery business altogether also contributed a significant volume of metal to the overall jewellery supply chain.

The poor profitability of some jewellers was exacerbated by the rapid rise in the spot price of platinum. The retail end of the jewellery industry in Japan has tended to estimate future raw material costs once every six months and companies budget accordingly. This leads to cash flow problems when the price of metal increases more rapidly than predicted, as was the case in 2003.

Japanese retail sales of platinum jewellery fell by around 11 per cent last year, although platinum maintained its share of the shrinking market. Sales of bridal jewellery were affected by a decline in the number of couples getting married (a long-term demographic trend), as well as by a fall in the number of engagement rings purchased.

In the fashion side of the market, sales of platinum jewellery dropped as the price of platinum climbed from an average of ¥2,400 per gram in January to ¥2,800 in December. This made white gold more competitive and, in the lowest price bracket (under ¥50,000), silver jewellery increased in popularity. It is worth noting that retail sales of yellow gold items during the year slumped by 26 per cent – the preference for white precious metal jewellery remains strong in Japan.

The picture at the upper end of the non-bridal market was more positive, with retail sales of platinum jewellery actually increasing on an annual basis. Unfortunately for Japanese jewellery fabricators, however, overseas brands gained a larger share of the market. Japanese manufacturers hoping to increase export sales also had to battle against the rising strength of the yen.

North America

Purchases of platinum by jewellery fabricators in North America were flat in 2003, remaining unchanged at 310,000 oz. Platinum has developed a strong position in the bridal market in the USA, and sales of platinum wedding bands improved year-on-year. Many fabricators selling to the higher priced segments of the fashion jewellery market also reported better sales in 2003 than the year before, with retailers enjoying a strong Christmas season.

The rise in the price of platinum, however, made it increasingly hard for fabricators to produce pieces that could be sold into the lower price brackets without reducing the weight of chains and pendants to unacceptably low levels. In addition, US manufacturers faced increased competition from imports from Europe and Asia – the net result being no discernable change in total purchases of platinum.

Rest of the World

Demand for platinum for jewellery manufacture in the Rest of the World region deteriorated in 2003, sliding by 17.5 per cent to 1.295 million oz. The drop was entirely attributable to a fall in purchases of metal by Chinese jewellery fabricators from the peak of 1.48 million oz in 2002 to 1.2 million oz last year.

The primary reason for the fall in purchases of metal was the rising platinum price, particularly the speed of the rallies seen in the first and final quarters of the year. Demand dropped noticeably during January and February as the spot price surged from \$600 to \$700. When the price dropped back to close to \$600 in April, buying by Chinese manufacturers picked up again ahead of the Labour Day holiday in early May. The SARS outbreak then caused a temporary lull in the market but sales recovered strongly in the third quarter of the year in the run up to October's National Day holiday period. In the final quarter of the year, however, the rapid rally in the price from around \$700 at the beginning of October to a peak of just over \$840 in December again cut purchases of metal.

Although jewellery retailers in China began to react more rapidly to changes in the price of the metal in 2003, retail price increases still lagged well behind the rising spot price as competition between jewellery stores remained fierce. Over the year as a whole, the price paid by Chinese jewellery manufacturers for platinum increased by 27 per cent but retail prices for platinum jewellery increased by less than half that.

Platinum Demand: Jewellery
'000 oz

	2002	2003
Europe	160	170
Japan	780	665
North America	310	310
Rest of the World		
China	1,480	1,200
Other	90	95
Total	2,820	2,440





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The result was a tightening squeeze on manufacturers' profit margins, which had typically fallen to less than 2.5 per cent by the end of the year.

The rising cost of metal also prompted many jewellery fabricators to defer metal purchases for as long as possible and led to a reduction in stocks held by manufacturers and wholesalers. A considerable number of the former switched a proportion of their production into higher-margin white gold jewellery.

The start of platinum trading on the Shanghai Gold Exchange (SGE) in August, however, was a positive development. It enabled manufacturers to source metal more easily and reduced the effective rate of VAT on platinum purchased through the exchange from 17 per cent to zero. At the same time, the 10 per cent consumption tax on platinum jewellery was cut to 5 per cent and the tax burden was shifted from manufacturers to retailers. From the start of platinum trading on the SGE on the 13th August through to the end of December a total of 246,000 oz of metal was bought through the exchange.

Estimated retail sales of platinum jewellery in China fell by around 10 per cent in volume terms as prices rose, with some erosion of market share by white gold. A lack of product choice and fresh designs as fabricators reduced their platinum ranges also had an impact. Nevertheless, for the majority of the Chinese jewellery-buying public, platinum jewellery retained its strong allure.

Jewellery demand for platinum elsewhere increased moderately in 2003 as manufacturers in South East Asia gained an increased share of export markets, primarily the USA.

Chemical

Consumption of platinum in the chemicals industry slipped to 310,000 oz in 2003 after having posted a recent high of 325,000 oz the year before. Use of the metal in catalysts for bulk chemicals manufacture eased as less new capacity came on stream, whilst demand for platinum catalyst gauze from the nitric acid industry also softened.

The use of platinum in process catalyst applications is greatest in the silicones industry, as losses of metal during operation are significant. Operating rates in the sector were broadly stable in 2003 and there were no significant additions to silicones manufacturing capacity. However, silicones producers and catalyst

manufacturers have had some success in thriftier the platinum content of catalysts and demand for the metal fell moderately as a result.

In another major process catalyst application for platinum, the manufacture of paraxylene, demand also slipped in 2003 compared with 2002. In this sector the construction of new capacity is the main driver of catalyst demand; metal losses during the paraxylene manufacturing process are low.

Metal purchases and catalyst production generally occur well in advance of the commissioning of plant expansions. Demand for platinum in 2002 grew strongly as catalysts were manufactured to meet the significant volume of additional capacity (equivalent to around 9 per cent of the global total) that subsequently came on stream in 2003. Demand for platinum-based catalysts in 2003, however, fell back, a reflection of the fact that less additional capacity is due to be commissioned in 2004.

Orders for platinum gauze from the global nitric acid industry weakened somewhat in 2003. Nitric acid manufacturers faced high and volatile natural gas prices during the first half of the year, which had a detrimental effect on the profitability of the sector and resulted in some capacity being idled, notably in North America. By the end of the year, however, gas prices had fallen back and the supply/demand balance had tightened, raising profitability throughout the entire nitrogen industry. Demand for nitric acid is heavily dependent on the nitrogen fertiliser market, which continues to show good growth globally, particularly in Asia.

Electrical

Demand for platinum used in electrical applications grew by 8 per cent in 2003, rising to 340,000 oz. Shipments of hard disks increased rapidly during the year as orders for computers and other electronic goods rebounded following two years of weak sales. Demand for platinum used in thermocouples also grew in line with higher steel and semiconductor output.

Platinum is an essential component of the magnetic alloys used in computer hard disks. Hard disk shipments rose substantially in 2003 as both corporate and consumer purchases of computing equipment rebounded from the downturn of 2001 and 2002. Sales of non-computer consumer electronics containing hard disks (such as digital video recorders and

Platinum Demand: Chemical '000 oz		
	2002	2003
Europe	115	105
Japan	30	40
North America	100	90
Rest of the World	80	75
Total	325	310



Platinum Demand: Electrical '000 oz		
	2002	2003
Europe	40	45
Japan	55	60
North America	100	100
Rest of the World	120	135
Total	315	340





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Platinum Demand: Glass '000 oz		
	2002	2003
Europe	10	10
Japan	60	50
North America	30	(5)
Rest of the World	135	120
Total	235	175



personal music players) also increased. In addition, as manufacturers continued to develop disks with higher data storage capacities, the average platinum content per disk rose. Increased demand was offset to some extent by the continuing fall in the disk to drive ratio.

Strong growth in crude steel production in 2003 was seen in Asia (notably China and India) and South America (mainly Brazil). This far outweighed a slight fall in US output and only sluggish growth in Western Europe. Rising steel production and investments in new capacity had a knock-on effect on demand for high temperature thermocouples, which typically contain platinum wire.

The manufacture of semiconductor wafers is another leading application for platinum-based thermocouples. Shipments of semiconductors began to recover rapidly during the latter part of 2003, feeding through to an upturn in thermocouple demand.

Demand for platinum used in fuel cell development programmes expanded in 2003, although the volumes concerned remained small and numerous hurdles to mass production of fuel cell powered products remain. There was a more intensive focus on the development of safe and efficient infrastructure for refuelling fuel cell vehicles with hydrogen, as opposed to on-board reforming systems; whilst the portable market saw the launch of several new prototype fuel cell powered laptop computers.

Glass

Glass industry demand for platinum dropped sharply in 2003, partly because the pace of investment in new capacity slowed but also in reaction to the rapidly rising price of the metal. Net purchases of platinum by glass manufacturers dropped by 26 per cent to 175,000 oz – the lowest level since 1994. Glass producers sought to minimise their platinum usage and a considerable volume of metal was sold back to the market.

The surge in the price of platinum from \$600 at the start of 2003 to over \$840 in December had a significant impact on purchases of metal by the global glass industry. Glass manufacturers sought to manage their inventories of platinum articles more efficiently, made efforts to thrift platinum use, worked to extend the lifespan of existing platinum equipment, and deferred purchases of new products containing platinum for as long as possible.

Platinum Demand: Petroleum Refining '000 oz		
	2002	2003
Europe	15	15
Japan	5	5
North America	45	45
Rest of the World	65	85
Total	130	150



The emphasis on improved housekeeping of metal, coupled with the closure of several glass furnaces worldwide, resulted in the sale of a significant volume of metal back to the market, notably in North America.

The effects of the above on platinum demand outweighed further expansions in Asia of glass fibre manufacturing capacity and plants producing high quality glass for flat panel displays. Considerable investment continued to be made in new plants, particularly in China, but the rate of expansion in the region slowed compared with 2002.

The net effect was that demand for platinum in glass manufacturing applications dropped by 26 per cent year-on-year to 175,000 oz.

Petroleum Refining

Demand for platinum used in petroleum refining catalysts increased by 15 per cent in 2003 to 150,000 oz as investment was made in new capacity in the Middle East and South America. With demand for many bulk petrochemicals increasing, some reforming and isomerisation capacity that had been taken off line the previous year was also brought back into service.

Platinum-based catalysts are used in reforming and isomerisation processes in the refining of crude oil. The volume of new catalyst required to top up existing installations is relatively stable, with fluctuations in demand largely related to the construction of new refining capacity. In 2003, investment was made in new petroleum reforming and isomerisation plants in the Middle East, Libya and South America, stimulating demand for platinum-based catalysts.

Little change in demand for platinum catalysts was seen in the mature petroleum refining industries of North America and Western Europe, although some capacity in the latter that had been mothballed in 2002 was brought back into production last year.

Other

Total demand for platinum from all other applications increased marginally in 2003 to 545,000 oz. Within this category, a drop in demand for platinum used in dental alloys and automotive applications (spark plugs and oxygen sensors) was offset by greater use of the metal in turbine blades and in the biomedical market.

The consumption of platinum in dental alloys (in which it is alloyed with gold) softened slightly in



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Western Europe, North America and Japan. Changes to the mix of metal alloys used and greater use of porcelain dental products accounted for the decline. The rising price of both gold and platinum increased substantially the cost of high-gold alloys (which typically contain 8 to 15 per cent platinum). This, coupled with a simultaneous drop in the cost of palladium-based alloys, resulted in demand for high-gold alloys weakening.

Sales of high-performance platinum-tipped spark plugs to auto companies edged down in 2003 in line with lower vehicle production in North America, by far the largest market for platinum spark plugs. In the Japanese market demand was broadly flat, and whilst platinum spark plugs continued to slowly gain market share in Europe, the impact on metal demand was negligible.

In the automotive sector, platinum is also a key component of oxygen sensors, which in turn are essential to modern emissions control systems. The number of oxygen sensors used per vehicle has stabilised over the last two years, following a rise between 1999 and 2001 that was connected with the introduction of Euro III emissions legislation. Demand in 2003, therefore, was closely linked to light vehicle output, and consequently fell by 3 to 4 per cent in North America and was little changed in Western Europe and Japan.

The use of platinum in biomedical equipment and oncological drugs continued to expand in 2003, continuing a decade-long trend. The USA dominates demand for medical equipment containing platinum components (such as pacemakers, stents, and catheter guide wires) and consumption of platinum in these applications climbed by an estimated 8 per cent in North America last year.

The USA is also the largest centre for the manufacture of the platinum-based family of anti-cancer drugs, although they are also produced in Europe, Japan and elsewhere. Global use of platinum in the production of anti-cancer drugs rose by an estimated 9 per cent in 2003.

Turbine blades coated with a thin layer of platinum have improved resistance to the high temperatures and severe operating conditions in jet engines. Demand for the metal in this application increased significantly last year as the global aircraft manufacturing industry saw a sharp upturn in orders following a slump in 2002.

Investment

Net purchases of platinum bars and coins by investors in 2003 fell as higher prices stimulated increased sales of products back to dealers in Japan and reduced purchases of bullion coins in the USA. Overall, net investment demand for platinum fell to just 15,000 oz, down from 80,000 oz in 2002.

Demand for the US Mint's Platinum Eagle bullion coins dropped to just over 24,000 oz in 2003, a fall of 22 per cent from the 30,800 oz sold the previous year. The marked increase in the price of platinum deterred many purchasers but, somewhat perversely, sales of Platinum Eagle bullion coins during the second half of the year were considerably above sales in the first half, despite the average price of platinum being much higher. It appeared that some investors were encouraged to buy into all precious metals as their prices rallied, partly in response to increasing mainstream media coverage of the sector. Sales of Platinum Eagle proof coins to collectors remained broadly flat in volume terms in 2003.

In Japan, the sale of large investment bars back to dealers was also strongly influenced by the rising price of platinum and outweighed new purchases by 15,000 oz over the course of the year. The local price in yen climbed from an average of around ¥2,400 per gram in January to ¥2,600 in February and March, stimulating a sharp rise in disinvestment and a slowing of purchases of new bars both directly from dealers and under Personal Accumulation Plans.

The rate of sales back to the market slowed during late March and April as the platinum price dropped back below ¥2,400, and remained fairly stable through to the end of June. The following month the rate of divestment increased once more as the price again climbed above ¥2,600, outweighing new purchases of investment bars.

From September through to the end of November, sales back to the market subsided again – although the US\$ spot price of platinum made significant gains, the simultaneous appreciation of the yen kept the local price more or less in check. In December, however, the sharp rally in the spot price from around \$770 to over \$840 was reflected in the yen price, which climbed from approximately ¥2,700 at the start of the month to over ¥2,900 at its peak. Consequently, disinvestment accelerated in Japan, exceeding purchases of new bars by a considerable margin.

Platinum Demand: Other '000 oz		
	2002	2003
Europe	190	195
Japan	55	55
North America	265	265
Rest of the World	30	30
Total	540	545



Platinum Demand: Investment '000 oz		
	2002	2003
Coins and small bars		
Europe	0	0
Japan	5	5
North America	40	25
Rest of the World	0	0
	45	30
Large bars in Japan	35	(15)
Total	80	15

