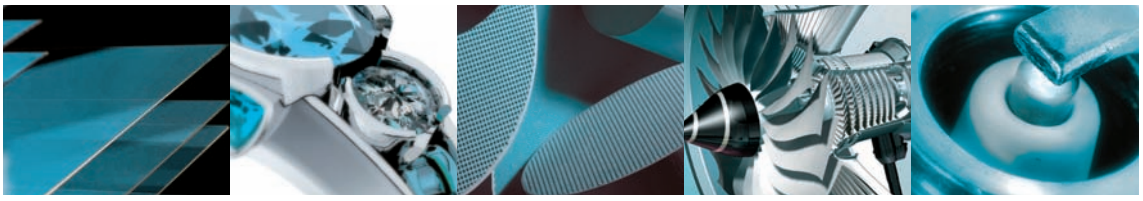
PLATINUM 2006



Interim Review

Johnson Matthey

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In particular, our thanks go to Denise Garwood, the members of the Johnson Matthey precious metals market research team and to Tanaka Kikinzoku Kogyo KK for their invaluable assistance in Japan.

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Coloured environmental scanning electron micrograph of diesel particulate matter. The particle is less than 10 microns in diameter.

PLATINUM 2006
Interim Review

by David Jollie

JM

Johnson Matthey

SUMMARY & OUTLOOK

PLATINUM

Demand for platinum is forecast to increase by 5 per cent in 2006, to a record level of 7.02 million ounces. Growth in the autocatalyst sector, driven by aftertreatment for diesel vehicles, will more than offset a decline in global jewellery markets, which have been negatively impacted by rising metal prices. Platinum supplies are expected to rise by 350,000 oz to their highest level to date, 7 million ounces, led by expansions from South Africa. With both supplies and demand rising, the market is therefore expected to be close to balance with a deficit of only 20,000 oz.

- **Demand** is expected to grow to 7.02 million oz in 2006. The autocatalyst sector will use more platinum, outweighing a decline in jewellery purchases.
- **Autocatalyst** demand for platinum is forecast to climb 15 per cent to 4.38 million oz in 2006, driven by the European diesel car sector. Heavy duty diesel manufacturers are also starting to consume significant amounts of metal.
- Demand for platinum from the **jewellery** market is projected to fall by 11 per cent to 1.74 million oz. Purchases are dropping in each region, especially China where they are expected to decline for the fourth successive year.
- **Industrial** demand for platinum is expected to rise by 6 per cent to 1.76 million oz. Growth in the chemical, electronics and petroleum sectors will outweigh small declines elsewhere.
- **Supplies** of platinum are forecast to rise by 5 per cent this year to 7 million oz. South African expansion will be significantly greater than in 2005.
- The platinum **price** rose strongly over the first half of the year, from an initial $982 to a new all-time record of $1,335 in May, supported by physical buying and fund interest. After this, fund sales of a range of commodities dragged platinum back to end September at $1,140. Our forecast is for platinum to trade between $980 and $1,200 for the next six months.

Platinum demand for **autocatalyst** manufacture is expected to rise from 3.82 million ounces to 4.38 million ounces in 2006. European automotive industry purchases will grow strongly as the market share of diesel vehicles moves above 50 per cent. North America will also contribute increased platinum demand from catalysts fitted to both light and heavy duty diesel trucks. Emissions legislation continues to tighten around the world, driving catalyst loadings up despite some substitution of palladium for platinum.

In contrast, platinum demand from the global **jewellery** industry is forecast to drop by 225,000 oz to 1.74 million ounces in 2006. High prices and price volatility in the first half of the year have affected purchases of new metal by manufacturers across the major regions, particularly in China. Pipeline metal stocks have been reduced and there has been an increase in recycling of second-hand or unsold platinum jewellery.

Platinum Supply and Demand
'000 oz

		2005	2006
Supply			
South Africa		5,115	5,430
Russia		890	895
North America		365	365
Others		280	310
Total Supply		**6,650**	**7,000**
Demand			
Autocatalyst:	gross	3,820	4,380
	recovery	(770)	(830)
Jewellery		1,965	1,740
Industrial		1,660	1,760
Investment		15	(30)
Total Demand		**6,690**	**7,020**
Movements in Stocks		**(40)**	**(20)**

JM

Demand for platinum in **industrial** applications is projected to grow in 2006 to 1.76 million ounces, up a respectable 100,000 oz on 2005. Electronic applications will consume 18 per cent more platinum this year due to continuing growth in hard disk manufacturing. Metal usage in chemical applications will grow slightly. By contrast, the glass industry will consume less metal this year than in 2005, because of a lower scale of investment in manufacturing capacity for LCD glass.

Platinum **supplies** are forecast to rise by 5 per cent this year, to a new record of 7 million ounces. 2006 will see considerable growth in production from South Africa with the opening of new mines at Everest South and Two Rivers, and expansion at Anglo Platinum. We expect Russian sales for the year to rise slightly from last year to 895,000 oz. North American platinum output is anticipated to remain unchanged in 2006. The prospects for Zimbabwean production have also improved, with apparent resolution of many of the issues in dispute between the primary producers and the government.

The platinum market will therefore be in a modest deficit of 20,000 oz for 2006, despite a decline in global jewellery demand. These positive supply-demand fundamentals have given solid support to the price over the first nine months of 2006, but fund investment has continued to provide much of the impetus behind day-to-day price movements.

With commodity **prices** continuing to rise at a frantic pace for the early part of the year, heavy fund buying of platinum spilled over from 2005. This, coupled with good end user demand (including some forward buying), led to platinum price records being set

from January to May. Significant resistance levels were broken throughout this period. Platinum pushed above its previous all-time high dollar price ($1,047.50) in January and also moved through the ¥4,000 per gram and €1,000 per oz levels. The peak came in mid-May as it fixed at $1,335.

Later that month, widespread selling of emerging market and other higher risk assets, including commodities, sent precious metals prices sharply lower. After a period of some recovery, the platinum price slid to $1,140 at the end of September.

Supply

Expansions in mining and pgm processing capacity in South Africa are forecast to add 315,000 oz to platinum supplies in 2006, to a total of 5.43 million ounces. Zimbabwean output will grow but supplies from Russia and North America are expected to be stable.

Anglo Platinum will be responsible for the majority of South African growth, with improved production at a number of sites, including BRPM and Amandelbult. Output will also be boosted by 120,000 oz of metal which had not been processed due to the shutdown of the Polokwane smelter at the end of 2005. The group's total supplies will reach 2.73 million ounces.

Impala's main operations are likely to record slightly decreased production compared to 2005 due to lower than expected grades. Expansions at its other properties will push platinum production higher and the group believes it should process more than 2 million ounces of platinum in 2007.

Despite a weak first half due to a furnace rebuild, Lonmin's shipments are expected to grow in 2006 as excess metal in the pipeline is processed. Production at Aquarius will be bolstered by the newly-operational Everest South Mine, whereas sales of platinum by Northam are forecast to fall.

Shipments of platinum from Russia are projected to be close to production levels, at 895,000 oz for the year, a slight increase on 2005. Platinum production at Norilsk Nickel was 577,000 oz for the first three quarters. Output is likely to be augmented by the release of metal from its pgm-processing pipeline to bring sales for the year to 750,000 oz. The balance of Russian supply will come from alluvial mining with sales from state stocks expected to be negligible.

Platinum supplies from North America are likely to remain at 365,000 oz. Zimbabwean production is set to rise modestly in 2006, with most of this growth coming from Mimosa. With an improving operating environment, further expansion in Zimbabwe now seems possible in the medium term.

Demand

Global demand for platinum in the autocatalyst sector is on course to reach a record level of 4.38 million ounces in 2006, a steep climb of 560,000 oz. For the first time, diesel models will represent more than one half of all European light duty vehicle sales. Combined with this, the Euro IV emissions regulations came into force across Europe at the start of the year, pushing pgm loadings higher on car catalysts.

In addition, a greater proportion of diesel passenger cars are now equipped with platinum-containing filters as well as diesel oxidation catalysts, further boosting platinum content per vehicle. European platinum demand is therefore expected to grow strongly, rising by 300,000 oz to a total of 2.25 million ounces.

There will also be strong growth in platinum autocatalyst demand in North America, to 950,000 oz in 2006. As US Tier II regulations progressively tighten, they are forcing manufacturers to fit catalysts with significant precious metal content to a number of light duty diesel trucks for the first time this year. The use of catalytic aftertreatment in heavy duty diesel vehicles will also add to growth. More oxidation catalysts and filters are being fitted to vehicles as standard and retrofit continues to add to demand.

The picture for platinum consumption is mixed elsewhere in the auto industry. Japanese platinum demand is expected to fall 6 per cent to 565,000 oz. With no new domestic legislation and few diesel cars manufactured, platinum use is decreasing as auto makers move to replace it with palladium in many three-way catalysts on gasoline vehicles. Platinum demand in China and the Rest of the World will rise by 165,000 oz to a combined total of 615,000 oz, reflecting high growth rates in many of these markets.

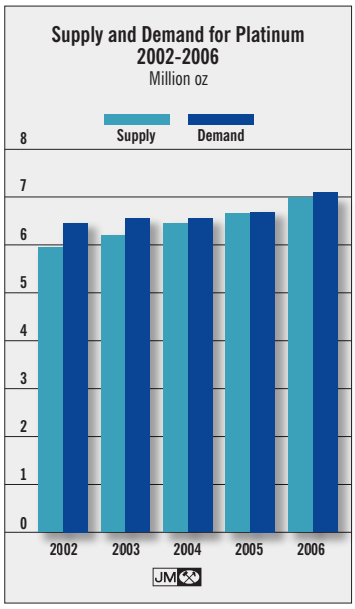
The jewellery industry is expected to see demand for platinum drop this year from 1.97 million ounces to 1.74 million ounces. Rising gold and platinum prices and exceptional volatility have reduced jewellery

purchases in most markets. Platinum demand in China is projected to contract 11 per cent to 780,000 oz and similar percentage falls are expected elsewhere.

Demand from the Chinese jewellery industry has continued to fall. Stock held by manufacturers and retailers remains at relatively low levels, with high metal financing costs responsible. Consumer purchases are expected to fall over the year, as the lower end of the market is eroded by retail price increases. Competition is coming from a range of other metals, including gold, white gold and palladium, which are sold alongside platinum pieces in most regional markets in China.

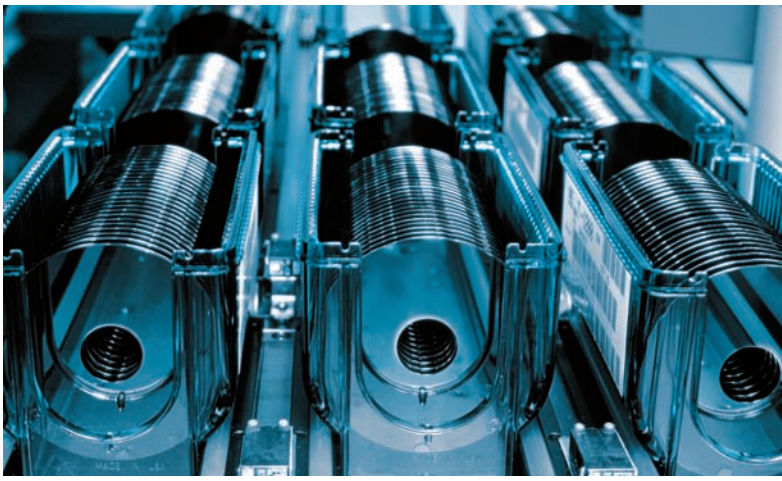
Nonetheless, purchasing by the jewellery trade on the Shanghai Gold Exchange has been stimulated when prices have fallen. The price decrease from May onwards has lent a degree of optimism to market participants and some upturn in demand is expected in the final quarter of the year. The bridal market has, meanwhile, proved robust. With the current Chinese year being particularly auspicious, the number of marriages has been high and has sustained platinum purchases in this area.

The Japanese jewellery sector has continued its decline. Three trends; a fall in the marriage rate, alternative options for consumer spending, and a move from three marriage rings to two, as well as high metal prices, will combine to push platinum demand down by 12 per cent to 450,000 oz.



The North American jewellery market continues to weaken, with an anticipated 13 per cent fall in purchases to 240,000 oz. In the USA, retailers focus on meeting well-defined price points and rising prices have made it challenging to produce attractive pieces at the lower end of the market. As a result, attention has been focused on the use of cheaper materials including white gold, lower purity platinum alloys and palladium jewellery, the last of which is beginning to be sold in increasing amounts.

The European market is also expected to fall by 10 per cent in 2006, to 175,000 oz. UK hallmarking figures show that sales have been flat so far this year, supported by the bridal sector, whereas German domestic consumption has fallen rapidly.



Purchases of platinum for the manufacture of hard disks continue to grow, thanks to healthy sales of consumer electronics.

Industrial uses of platinum are forecast to take 100,000 oz more metal in 2006 than the year before, raising demand to a healthy 1.76 million ounces. Good consumer sales in the electronics industry should drive annual demand for that sector 65,000 oz higher to 425,000 oz. Much of this growth is due to increased consumption in computer hard disks where platinum is used to increase their storage capacity.

The glass industry is continuing to expand LCD glass manufacturing capacity but at a lower rate than previously. The result is a decrease in platinum demand from 360,000 oz in 2005 to 325,000 oz, with the majority being bought for new factories under construction in Asia.

The chemical sector is expected to purchase 345,000 oz in 2006, a jump of 20,000 oz. Platinum use in these applications is largely price inelastic and continuing Chinese and Indian growth have kept demand for many commodity chemicals high, leading to increased consumption of process catalysts. Platinum requirements for the nitric acid industry will also edge higher than in previous years.

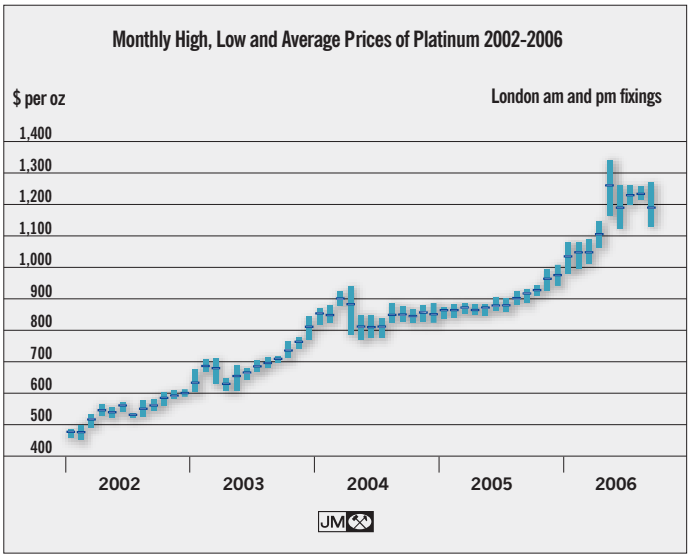
Outlook

Platinum demand is expected to climb higher in 2007, continuing the long term trend in annual growth. The increasing share of diesel vehicles in the European auto market and the first significant use of platinum

autocatalysts for heavier diesel vans and trucks are driving overall demand for platinum higher despite a weaker global jewellery market.

Diesel-fuelled vehicles continue to capture market share in Europe, with high fuel prices reinforcing the advantages gained from their good fuel economy. Although diesels now account for over 50 per cent of this market, growth is set to continue into 2007, albeit at a lower rate. The number of vehicles fitted with diesel particulate filters (DPF) is also increasing as manufacturers look to meet the expectations of environmentally-conscious European consumers and the particulate matter limits set by new emissions legislation. Overall, therefore, platinum demand from the European automotive market is expected to continue growing through 2006 and into 2007, although the pace of growth will decelerate.

Tightening regulations worldwide will increase consumption of platinum in the heavy duty diesel market. In the gasoline sector, platinum use in autocatalysts is more dependent on its price relative to palladium. Gasoline, or three-way, catalysts can use a variety of combinations of these metals and the choice of which to employ is based partly on cost but also on strategic considerations. At current price differentials, the replacement of platinum with palladium will continue throughout 2006 and into 2007, particularly in Japan and North America. In the Rest of the World (including China), high growth rates in vehicle production in many countries will mean that total platinum usage will increase despite a reduction in the average platinum content per car.



The outlook for the global jewellery market is less positive and will depend both on platinum's absolute price and its price relative to other precious metals. This year, the market is projected to contract by 11 per cent, with all regions suffering from high and volatile prices. However, we expect that final quarter purchases of platinum for Chinese jewellery will show some recovery from the first three quarters of the year - unless the price is especially volatile - as purchases are made for manufacturing requirements in advance of the Chinese New Year.

Looking forward into 2007, platinum jewellery is likely to face continued competition at the lower end of many markets, including China, from the increasingly-promoted K gold (which is sold in both white and yellow versions) and palladium. Although there is good consumer demand for platinum, price performance will be critical in determining the level of trade purchases. However, the relatively strong demand in the bridal market continues to provide a solid base for total platinum jewellery demand.

Increasing use in computer hard disks has driven platinum consumption higher and this will continue in 2007. Likewise, plant construction in Europe and North America should support platinum demand from both the glass and chemical sectors.

Platinum mine supply is expected to increase in 2007 sufficiently to match the predicted extra demand. South African expansion should be responsible for much of the growth. North American production is expected to rise, while sales of Russian metal are projected to change little.

We therefore expect 2007 to be the fourth successive year in which the platinum market is close to being in balance, with both supply and demand increasing. This equilibrium will underpin the platinum price although investment funds could be a significant influence in the shorter term. If the financial sector's interest in commodities remains high, the price of platinum could easily return to a level of $1,200 during the next six months. If the level of fund interest were to decrease, driving prices lower, this should prompt some increase in buying from the jewellery sector and other industries, preventing the price from falling below $980 over the same period.

PALLADIUM

Palladium demand is forecast to fall 6 per cent this year to 6.85 million ounces. Purchases by the jewellery trade are expected to be 310,000 oz lower than in 2005, mainly due to a drop in Chinese demand. The automotive industry will use more palladium on both diesel and gasoline vehicles. Supplies are projected to rise 1 per cent on 2005 levels to 8.48 million ounces.

Palladium **autocatalyst** demand is forecast to grow 7 per cent in 2006 to 4.14 million ounces, with increasing substitution of palladium for platinum. There will be a return to growth in the **electronics** sector, with demand rising to 1.06 million ounces this year.

Palladium demand for **jewellery** is forecast to drop to 1.12 million ounces in 2006. Chinese purchases will fall, depressed by recycling and by the large amounts of metal bought in 2005 to fill the distribution pipeline.

- **Demand** for palladium is forecast to fall by 6 per cent to 6.85 million oz this year.
- The **jewellery** industry will purchase 1.12 million oz of palladium in 2006, more than 20 per cent down on 2005. Chinese demand will fall following the surge of stockbuilding last year, with increased recycling also having an impact.
- **Autocatalyst** palladium demand is projected to rise 7 per cent to 4.14 million oz, with growth being seen in all regions except Europe.
- Palladium demand for use in **electronics** is forecast to climb to 1.06 million oz, driven by strong consumer demand for portable electronic devices.
- Palladium **supplies** are expected to edge 1 per cent higher, reaching 8.48 million oz in 2006, with growing production in South Africa and North America.
- The palladium **price** moved from $261 in January to a high of $404 in May on the back of record fund long positions. It slid back to end September at $315, in line with other commodities prices. We expect palladium to trade between $260 and $380 over the next six months.

Palladium **supplies** will edge 70,000 oz higher, to 8.48 million ounces. Expansion of South African platinum production will raise by-product palladium supply 10 per cent to 2.86 million ounces. Output from North America will grow by 50,000 oz. Russian production will be flat but should be augmented by large sales of state stocks.

The palladium **price** rose to a high of $404 in May, on the back of rising speculative long positions on the futures exchanges. However, the sell-off in the commodity markets later that month then drove prices down. Lease rates stayed low, indicating a liquid market with little pressure on metal availability. Having started January at $261 and closed September at $315, the price outperformed platinum in percentage terms over this period.

Palladium Supply and Demand
'000 oz

		2005	2006
Supply			
South Africa		2,605	2,855
Russia		4,620	4,370
North America		905	955
Others		280	300
Total Supply		**8,410**	**8,480**
Demand			
Autocatalyst:	gross	3,870	4,140
	recovery	(630)	(805)
Dental		815	815
Electronics		965	1,055
Jewellery		1,430	1,120
Other		810	525
Total Demand		**7,260**	**6,850**
Movements in Stocks		**1,150**	**1,630**

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Supply

Total Russian palladium supply is again expected to be above production, at 4.37 million ounces. Norilsk Nickel has forecast its shipments for the year at 3.15 - 3.19 million ounces. The last 63,000 oz of metal from the Norilsk stock transfer to Stillwater Mining in 2003 was sold in the first quarter. Sales from Russian state stocks were made earlier this year and we expect more at the end of 2006 as long as Gokhran is granted its customary export quota.

South African palladium supplies are forecast to grow 250,000 oz to 2.86 million ounces in 2006 as expansions in mining capacity proceed more quickly than in 2005. Supplies from North America will climb 6 per cent to 955,000 oz. Palladium output from Zimbabwe and the Rest of the World will also increase by 20,000 oz this year to 300,000 oz.

Demand

Purchases of palladium for use in autocatalysts are expected to rise to 4.14 million ounces in 2006. Decreasing demand in Europe due to the success of diesel technology will be more than offset by rises in North America and Japan where palladium is increasingly replacing platinum in catalysts for gasoline vehicles. Chinese sales are expected to grow to 4 million cars this year, further raising palladium consumption.

The electronics sector is expanding and substitution of base metals for palladium in

multi-layer ceramic capacitors (MLCC) is slowing. The outlook for demand is therefore positive as the likelihood of further substitution for palladium diminishes in the near term.

Palladium jewellery demand is expected to weaken in 2006. Chinese purchases will fall 28 per cent to 860,000 oz due to the recycling of large volumes of jewellery coming back from retailers in the form of Pd950 (95 per cent palladium). Palladium jewellery was introduced in 2004 in the form of Pd950 but the following year manufacturers moved most of their production to higher purity Pd990. Additionally, 2005 demand was inflated significantly above consumer purchases as the trade pipeline filled with work in progress and retail stocks were built.

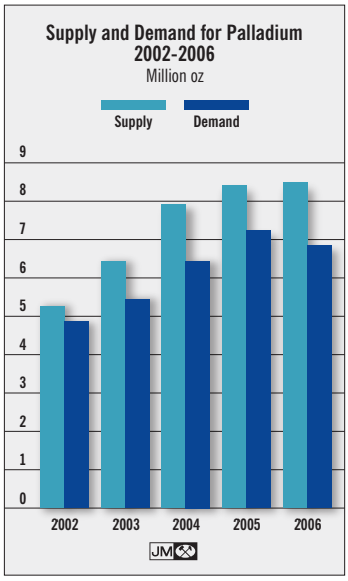
US jewellers are forecast to use 40,000 oz of palladium in 2006. Global demand for palladium continues to be supported by its use in white gold and platinum jewellery alloys.

After very high physical retail investment of 400,000 oz last year, demand in 2006 will be weaker. Most other applications of palladium, including its use in process catalysts and in dental alloys, will be relatively flat.

Outlook

Autocatalyst palladium demand is projected to grow this year. Auto makers are currently switching from platinum to palladium in many three-way catalysts and this trend is expected to continue in 2007.

Palladium purchases by European car makers are forecast to weaken in 2006 but should start to recover next year. Although the continuing growth in diesel car output is reducing the number of gasoline vehicles manufactured, this should be balanced by rising palladium use in diesel catalysts.



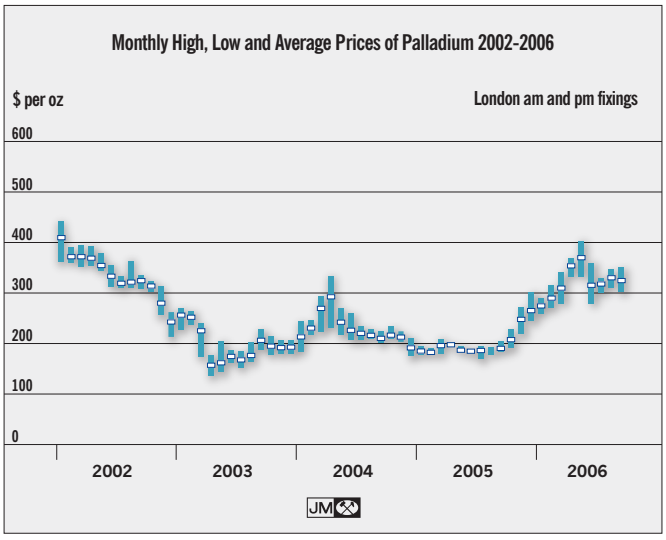
In the jewellery sector, purchases of palladium in China should rise as the trade finishes recycling its old Pd950 inventories, becoming more representative of overall levels of retail sales. A recovery in demand would be further supported if trading of palladium were to be permitted on the Shanghai Gold Exchange. A promotion campaign for palladium jewellery began in Shanghai and Beijing in September 2006.

Growing interest in palladium as an alternative to white gold for jewellery and watches in North America and Europe is also likely to contribute to higher global demand in 2007.

The electronics sector has performed well in 2006, with palladium demand exceeding 1 million ounces. Rising sales of electronic goods are boosting metal consumption, a trend which is expected to continue.

With South African platinum output rising, palladium supplies will grow in 2006 and 2007. Russian production is expected to be flat, despite long term plans to raise nickel output. Russian state stocks remain significant and the timing of sales from these may have a strong influence over short term price movements.

Supplies of palladium are forecast to exceed demand in 2006 by 1.63 million ounces, yet the price of palladium outpaced that of platinum, in percentage terms, between January and September. This price performance is explained by the readiness of investment funds to absorb the surplus. A better outlook for demand from the auto and jewellery sectors may encourage funds to extend long positions in palladium. In these circumstances, the price could rise as high as $380. If, however, this support evaporates and positions are significantly reduced, the price will fall, although we believe it is unlikely to trade below $260 over the next six months.



SUPPLIES, MINING & EXPLORATION

SOUTH AFRICA

Supplies of platinum from South Africa are forecast to rise by 6 per cent to 5.43 million ounces in 2006. Much of this increase will come from higher production at Anglo Platinum, as it benefits from improved performance by established mines, expansion of the Kroondal operation, and the release of pgm from the processing pipeline. New mines on the Eastern Bushveld, Aquarius's Everest South and ARM and Impala's Two Rivers, will also add significantly to supplies this year.

Anglo Platinum

Refined platinum production at Anglo Platinum rose by 6 per cent to 1.34 million ounces in the first six months of 2006. Production of palladium rose more modestly, up 1 per cent at 731,000 oz. Improved results from several of the group's mines were supplemented by the release of a backlog of platinum, which had built-up in the processing pipeline following the closure of the Polokwane smelter in late 2005. Refined platinum output for the year is expected to exceed 2.7 million ounces, increasing to 2.8 - 2.9 million ounces in 2007.

Production increased at the wholly-owned Rustenburg and Amandelbult operations. Growth was particularly strong at Amandelbult, where mill throughput rose by 19 per cent from January to June, although this was partly offset by lower grades due to fluctuating reef widths.

Higher production was also achieved by the Bafokeng Rasimone Platinum Mine (BRPM), a joint venture with the Royal Bafokeng Nation, and by the Kroondal mine, part of a Pool & Share Agreement with Aquarius Platinum. At BRPM, mill throughput rose by 12 per cent, mainly due to processing of a surface stockpile of ore, while an expansion at Kroondal resulted in more metal being available for refining by Anglo Platinum. (Processing of pgm from this operation is currently split with Impala Refining Services).

These gains more than offset lower output at Union Section, where the need for additional ground support limited access to the UG2 declines, and at PPRust and the Western Limb Tailings Retreatment plant, both of which were affected by heavy rains in early 2006.

Previously-announced projects will continue to add to production this year and next, with expansion at the Marikana mine, under a Pool and Share Agreement with Aquarius Platinum, and the Mototolo joint venture with Xstrata, where commissioning of the concentrator is planned for late 2006. One further expansion project - PPRust North - was approved in the first half of 2006.

PGM Supplies: South Africa
'000 oz

	2005	2006
Platinum	5,115	5,430
Palladium	2,605	2,855
Rhodium	628	702

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Impala Platinum

Production of refined platinum from the Impala Platinum lease area declined by 6 per cent to 534,000 oz in the first half of 2006. Although the quantity of ore processed through the plant was little changed, the headgrade declined, reflecting increased reliance on mechanised mining and a rise in the proportion of UG2 ore (typically lower in grade than Merensky Reef). Output of palladium fell by 21 per cent to 219,000 oz, due to fluctuations in the processing pipeline.

At the Marula Platinum operation on the Eastern Bushveld, the build-up to full production continues. In the January to July period, mill throughput rose by 64 per cent to 508,000 tonnes of UG2, yielding 21,000 oz of platinum in concentrate.

Although annual production from the Impala lease area is not expected to expand beyond 1.1 to 1.2 million ounces of platinum, the capacity of Impala Refining Services' processing facilities will grow to exceed 2.3 million ounces, from just under 2 million ounces currently. This is in line with the planned expansion of the company's Zimbabwe operations and growing concentrate shipments from Eastern limb projects.

Lonmin Platinum

During the first half of 2006, refined platinum production from Lonmin's operations fell by 15 per cent to 389,000 oz. This reflected a build-up of pgm in the processing pipeline following the rebuild of a furnace in February and a shutdown of the smelter in April. Much of the backlog will be treated in 2006, and we expect platinun sales this year to total approximately 950,000 oz.

The expansion of the Marikana operations continued, with first half mill throughput up 5 per cent to 6.8 million tonnes. At the Limpopo mine (formerly Messina),

Aquarius Platinum signed a Pool and Share Agreement covering its Marikana operation with Anglo Platinum during 2005. The plant is currently being expanded.

acquired in June 2005, a total of 452,000 tonnes of ore were processed, similar to the previous six months. The project remains on schedule to produce 75,000 oz of platinum annually from 2007.

Lonmin's longer term intention is to expand output at Marikana and continue development at Limpopo. It is also reevaluating the Pandora project, a joint venture with Anglo Platinum and Northam, which could produce around 200,000 oz of platinum per annum.

Other Producers

Northam's production has been affected by difficult ground conditions during 2006. Severe potholing led to an 11 per cent drop in the amount of Merensky ore mined; however, this was partly offset by increased production from the more consistent UG2. First half mill throughput declined by 4 per cent to 1.11 million tonnes in 2006, yielding 104,000 oz of platinum in concentrate. Geological issues will continue to affect production in the second half, and platinum output in concentrate is set to fall below last year's figure of 225,000 oz.

In addition to its Kroondal and Marikana operations, both the subject of Pool and Share Agreements with Anglo Platinum, Aquarius Platinum now has a third mine at Everest South on the Eastern Bushveld which is in its first full year of operation. Between January and June, the mine yielded 52,000 oz of platinum in concentrate. Much of the ore treated has come from opencast operations, but underground mining will ramp up to full production in the period to March 2007.

ARM Platinum has stakes in three pgm-producing joint ventures: Modikwa, the Nkomati nickel mine and Two Rivers. At Modikwa, refined pgm production was steady at 70,000 oz in the first half of 2006. In the same period, Nkomati saw an 18 per cent increase in mill throughput, boosting nickel output and nearly doubling by-product pgm production to 33,000 oz.

ARM's newest platinum operation is at Two Rivers, where the concentrator was commissioned ahead of schedule in August 2006. The mine has a 1.1 million tonne surface stockpile of ore, built-up during the construction of the plant, allowing the concentrator to operate at full capacity from the final quarter of 2006. Full underground production is targeted for late 2007.

In May 2006, the Canadian company Eastern Platinum acquired a 65 per cent stake in Barplats, owner of the Crocodile River mine. Production is currently from the Maroelabult and Zandfontein sections, and platinum output is exptected to be about 50,000 oz in 2006. Eastplats also has pgm exploration projects at Mareesburg and Spitzkop on the Eastern Bushveld.

RUSSIA

Russian supplies of palladium are expected to total 4.37 million ounces in 2006, above the level of mine production but around 5 per cent less than the year before. Norilsk Nickel is on course to produce over 3 million ounces of palladium, in line with output in 2005, and very substantial volumes of metal from state stocks appear to have been sold early in the year. Sales of Russian metal by Stillwater Mining, however, will be sharply lower than in 2005 as its inventory was exhausted during the first quarter of the year. Russian shipments of platinum from Norilsk and alluvial mines are forecast to be marginally higher at 895,000 oz.

Norilsk Nickel expects to produce between 3.15 and 3.19 million ounces of palladium in 2006, a marginal increase from last year. Production of platinum is also forecast to be close to last year's level at 750,000 - 760,000 oz. Output comes primarily from Norilsk's operations on the Taimyr Peninsula in Siberia. As in 2005, mine production (estimated at 3 million ounces palladium, 700,000 oz platinum)

PGM Supplies: Russia
'000 oz

	2005	2006
Platinum	890	895
Palladium	4,620	4,370
Rhodium	90	60

will be augmented by the release of metal from Norilsk's process pipeline and by an improvement in overall pgm recoveries.

In June, Norilsk released a summary of its strategy to 2015. The plan includes significant expansion of ore production from its Taimyr mines and major changes to its flotation and metallurgical plants, which should raise nickel production 7 per cent by 2011. However, pgm production is forecast to remain broadly stable. Of longer term interest, it also concluded separate joint venture exploration and development agreements with Rio Tinto and BHP Billiton in the first half of the year.

Just over 1.45 million ounces of Russian palladium were recorded as entering Switzerland, Hong Kong and the USA during the first quarter of this year. A significant proportion of this is believed to be metal shipped from Russian state stocks by Gokhran (the State Fund for Precious Metals and Precious Stones) under its 2005 export quota, which was only received late last year.

During the first quarter of 2006, Stillwater Mining of the USA sold 63,000 oz of Russian palladium. This completed the company's sale of the metal that it received from Norilsk Nickel in 2003. Stillwater's sales of metal from this source totalled 439,000 oz in 2005.

NORTH AMERICA

Supplies of platinum from North America are forecast to be stable at 365,000 oz in 2006, while palladium shipments are expected to rise by 6 per cent to 955,000 oz. Output of by-product pgm from Canadian nickel operations will decline slightly, but production at North American Palladium should recover strongly. Pgm shipments from the Stillwater mine are forecast to be marginally up on 2005.

In the first half of 2006, increased production from the East Boulder mine lifted Stillwater's mill throughput by 5 per cent to 678,000 tons, yielding 67,000 oz of platinum and 228,000 oz of palladium. The company is implementing more selective mining methods, with the aim of improving average grades in the future.

After a very difficult 2005, North American Palladium should see a significant increase in pgm output this year. Palladium production from January to June totalled 104,000 oz, up 3.5 per cent, with strong gains in the second quarter. The ramp-up of production from a new underground section has rapidly improved the headgrade, which by mid-year had risen above 2.2 grams of palladium per tonne compared with less than 1.5 grams per tonne in the second half of 2005.

Output of by-product pgm from Canada's nickel mines is expected to fall this year. Inco produced 173,000 oz of pgm in the first half of 2006 and expects full year output of 400,000 oz, down 5 per cent on 2005. We also forecast a moderate decline in pgm production at the former Falconbridge operations, which were acquired by Xstrata in August. Nickel and copper output from the company's Sudbury mines fell by 25 per cent and 12 per cent respectively between January and June of 2006, due to a combination of difficult ground conditions and lower grades.

PGM Supplies: North America
'000 oz

	2005	2006
Platinum	365	365
Palladium	905	955
Rhodium	20	20

JM

ZIMBABWE

Production of platinum in Zimbabwe is forecast to rise by 10 per cent to 170,000 oz in 2006. Most of this gain will be from expansion of the Mimosa mine which came on stream in the second quarter. Increasing underground mining at Ngezi should improve grades and raise pgm output this year.

At Mimosa, jointly owned by Impala and Aquarius, output of platinum in concentrate was 36,000 oz in the first half of 2006, marginally up on the previous year. The Wedza Phase IV expansion project was commissioned in April, increasing milling capacity to 150,000 tonnes per month, which will yield around 85,000 oz of platinum in concentrate annually.

At the Ngezi mine, owned by Zimplats, mill throughput was unchanged in the first half of 2006. However an improvement in headgrade, due to an increased contribution from underground workings, led to a 5 per cent rise in pgm output to 94,000 oz.

In May, Zimplats reached an agreement with the Zimbabwean government over future development of its properties. Impala and Zimplats have now approved the capital expenditure for the first phase of their long term expansion plan.

PGM Supplies: Zimbabwe and Others
'000 oz

	2005	2006
Platinum	280	310
Palladium	280	300
Rhodium	17	19

JM

PLATINUM

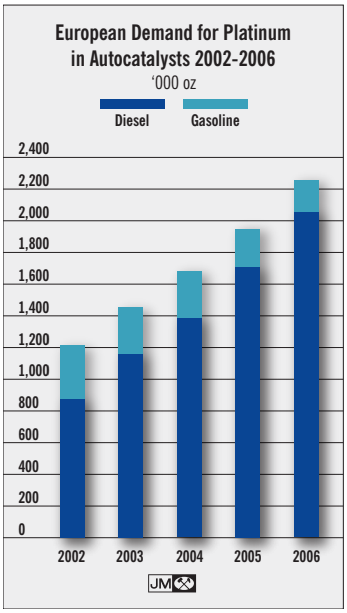
AUTOCATALYST

Demand for platinum in the autocatalyst sector is forecast to rise by 15 per cent to a record 4.38 million ounces in 2006. In Europe, diesel cars have increased their market share beyond 50 per cent. A greater number of platinum-containing catalysed soot filters (CSF) are being fitted in order to meet new legislation. Heavy duty diesel manufacturers in North America will also use a significant amount of platinum for the first time this year. Platinum's replacement by palladium in three-way catalysts will reduce demand, particularly in Japan, but this effect will be outweighed by increased vehicle production in China and the Rest of the World.

Europe

European platinum demand for autocatalyst use will rise in 2006 by a forecast 15 per cent to 2.25 million ounces, continuing its growth for a ninth successive year. This is despite a fairly flat trend in light vehicle production, which is expected only to increase by 1.2 per cent over the whole year to 17.9 million units.

The market share of diesel vehicles continues to expand, albeit at a lower rate than before. They now account for over half of all new light vehicle sales. With many new models featuring platinum-based catalysed soot filters as well as oxidation catalysts, platinum demand has risen accordingly. The introduction of Euro IV legislation this year has increased average metal loadings per car but manufacturers, driven by rising platinum prices, have thrifted metal where possible. The replacement of platinum with palladium in some gasoline vehicles also continues.



Japan

In 2006, Japanese car production is expected to remain at levels close to 2005, at 9.1 million units for the full year. Despite this, the automotive sector is forecast to purchase only 565,000 oz of platinum, 6 per cent less than one year previously.

High metal prices have encouraged the replacement of some platinum catalysts on gasoline vehicles by palladium versions. The record high price of platinum earlier this year appears to have accelerated the rate of this substitution, which was previously much slower than in other markets. As a consequence, platinum demand for gasoline vehicles is expected to fall.

Platinum Demand: Autocatalyst
'000 oz

	2005	2006
Europe	1,950	2,250
Japan	600	565
North America	820	950
Rest of the World		
China	120	150
Other	330	465
Total	**3,820**	**4,380**

JM

The use of platinum in diesel vehicles (primarily for export) is rising to meet tightening overseas emissions standards. All large trucks for domestic sale have been subject to strict emissions limits since late 2005 and most now have platinum-based aftertreatment fitted.

North America

North American light vehicle production is expected to drop by 2 per cent in 2006, falling below 14 million units for the first time since 2001, to 13.8 million. Despite this, platinum demand from the automotive industry in North America is expected to increase by 16 per cent to 950,000 oz, with strong growth in metal use in light and heavy duty diesel vehicles.

Many light diesel trucks, principally pick-ups up to 6,000 lbs in weight, will have catalysts fitted for the first time to comply with model year 2007 emissions rules. Sulphur levels in diesel fuel are falling, enabling the use of complex aftertreatment. Platinum use in larger trucks will also grow. A number of retrofit programmes continue to fit pgm-containing filters. Manufacturers are offering catalyst fitment on a variety of vehicles as either an option to customers or as a standard product.

The major Detroit manufacturers have had a downbeat year to date. The Big Three make fewer fuel-efficient models than other manufacturers, a fact which has become progressively more important given higher gasoline prices. The result has been a decrease in their domestic vehicle sales. Additionally, efforts have intensified to control costs and have caused a further substantial shift from platinum-rich catalysts to palladium technology on gasoline vehicles.

China

Platinum consumption by auto manufacturers in China is forecast to rise to 150,000 oz from 120,000 oz in 2005. Chinese domestic production of automobiles continues to grow strongly and, after a healthy first half of the year, could reach 4 million cars for the whole of 2006, up from 3.2 million last year. With all cars sold having to meet at least Euro II emissions standards, catalyst fitment is now almost universal. As domestic production of cars and commercial vehicles continues to climb, pgm usage is expected to rise further, aided by the next tightening of emissions regulations in 2007.

Rest of the World

Autocatalyst demand for platinum in the Rest of the World region is expected to grow by 41 per cent in 2006 to 465,000 oz. Much of this increase is due to a rise in light duty vehicle output in a number of countries. Car production in South Korea should increase by 10 per cent to over 4 million and similar rates of growth will be seen in India, South America and Thailand.

The general trend of introduction of stricter emissions legislation around the world will continue. For instance, Argentina will require all new cars to meet Euro III standards from 2007, driving higher platinum usage at the end of 2006. The contribution made by heavy duty diesel vehicles in the region will also double to 60,000 oz this year, reflecting sustained political interest in improving air quality in urban environments.

Autocatalyst Recovery

The amount of platinum reclaimed from used autocatalysts will increase in 2006, moving up 8 per cent to an estimated 830,000 oz. The European End of Life Vehicle Directive, now fully in force, has boosted recycling rates for automotive components. Growing European platinum recovery also reflects the increasing amount of platinum fitted to diesel vehicles in the late 1990s. Recovery rates remain high for scrapped vehicles in all major auto markets due, in part, to high commodity prices. Nonetheless, rising sales of used vehicles to second tier markets will restrain the growth in global autocatalyst recycling.

Platinum Demand: Autocatalyst Recovery
'000 oz

	2005	2006
Europe	(170)	(190)
Japan	(35)	(35)
North America	(505)	(545)
Rest of the World	(60)	(60)
Total	**(770)**	**(830)**

JM

JEWELLERY

Platinum demand from the jewellery industry is anticipated to fall in 2006 to a total of 1.74 million ounces, the lowest level since 1993. High precious metal prices have negatively affected the jewellery trade in general and the record platinum price has encouraged manufacturers and retailers to examine the use of other metals, including palladium. In China, the recycling of old platinum jewellery stock has increased and purchases of new metal are expected to shrink for the fourth year in a row. Demand in other major markets has weakened.

Europe

European jewellery manufacturers are expected to consume 175,000 oz of platinum, down 20,000 oz on 2005. Continued high platinum prices, both in absolute terms, and compared to gold, are having a negative effect at the lower end of the market and on fashion jewellery in particular. Demand for platinum in the bridal sector currently remains relatively strong.

Sales and production in the UK have held up well. Platinum is embedded in the bridal market and is expected to continue to be in demand at the mid to top end in particular. At the lower end of the market, though, platinum has become too expensive and has lost share. Overall, however, we anticipate that the number of pieces and amount of metal hallmarked will hold steady in 2006. Swiss platinum consumption for jewellery has dropped slightly, although production of platinum watches is fairly buoyant. By contrast, the German domestic market has been affected to a greater extent by high costs and platinum uptake is forecast to be lower than in 2005.

Japan

Japanese jewellery demand for platinum is once more expected to decrease, dropping by 60,000 oz to 450,000 oz in 2006. The domestic market for engagement and wedding rings continues to be the destination for the

majority of platinum jewellery, with the white metal dominant in this sector.

However, the long term rise in the age of the population and a steady decrease in the number of marriages is eroding this market. A trend is also developing towards the purchase of only two marriage rings instead of three. The number of engagement rings being sold is decreasing, with the money used for foreign travel or the purchase of domestic appliances.

Although the Japanese economy is growing slowly, consumer spending is flat on items such as fashion jewellery, where cheaper white gold continues to take market share. Recycling rates of old jewellery are increasing, cutting net demand further. The trade is also reducing the average weight of precious metal per piece in order to contain the final cost to the consumer and to maintain sales margins and volumes.

North America

North American platinum demand for jewellery fabrication will fall by 13 per cent to 240,000 oz in 2006. As in other areas, high prices have made it hard for manufacturers and retailers to maintain margins. This has encouraged many market participants to examine using other materials to increase their profitability. Some platinum jewellery products have been imported from lower cost manufacturing locations for retail in the USA (these are included as demand in their region of manufacture and not in North America).

White gold continues to compete at the lower end of the market but some other more esoteric materials are being considered. Several manufacturers and retailers are showing interest in the use of palladium, which threatens to compete with platinum and white gold in some metal-only jewellery. A limited amount of Pt585 (58.5 per cent platinum) has also appeared on the market. It is worth noting that US Federal Trade Commission guidelines are unique among countries where hallmarking is carried out in allowing the use of lower platinum-content alloys such as Pt585.

China

Demand for platinum for jewellery manufacture in China is forecast to drop 11 per cent to 780,000 oz in 2006. This continuing fall to the lowest level of metal uptake since 1998 can be attributed to the high and volatile price of platinum.

Although new platinum purchases by the jewellery trade are falling, consumer interest is being supported by many more marriages during the current Chinese year, which is auspicious for weddings as it has two Springs. Since platinum wedding rings are the first choice for many couples, the bridal market remains healthy despite the high platinum price.

In contrast, the fashion end of the market has been less insulated from the price movements of the last nine months. There has been significant competition for platinum, from palladium and from carat gold, which is being promoted widely in this segment under the brand name K Gold and, together with white gold, has been quite successful in capturing market share.

Chinese demand has proved to be less elastic than many commentators had expected, and there is still strong manufacturer and retailer interest in platinum, even at levels significantly above $1,000 per oz. However, sales on the Shanghai Gold Exchange (which represents a substantial part of overall Chinese jewellery industry purchases) have been quiet, with volumes lower than in 2005. Nonetheless, any drops in price during the first nine months of 2006 were met with large amounts of physical buying by manufacturers.

Platinum Demand: Jewellery
'000 oz

	2005	2006
Europe	195	175
Japan	510	450
North America	275	240
Rest of the World		
China	875	780
Other	110	95
Total	**1,965**	**1,740**

JM

Even after 2005's reduction of metal and jewellery stocks across the industry, there has been scope for further cuts. Recycling has continued at high levels, with consumers trading-in second-hand jewellery and the industry scrapping outdated or unpopular designs in an effort to control its working capital.

Rest of the World

Demand for platinum from jewellery manufacturers in the Rest of the World region is anticipated to fall to 95,000 oz in 2006. Fabrication of jewellery for export has declined, in line with weaker demand in the major markets. Although the gold jewellery market in India has been hit by high precious metal

prices, the platinum market has been more resilient, and reasonable, albeit modest, levels of consumer purchasing have been seen.

INDUSTRIAL

Purchases of platinum for industrial use will grow this year, reflecting the price inelasticity of most applications. Total demand is expected to increase by 6 per cent to 1.76 million ounces. Once again, strong sales of computers and other electronic devices continue to spur the use of platinum in hard disks. Platinum use will rise in the chemical sector and will drop in the glass industry although it will remain at historically high levels.

Platinum Demand: Industrial
'000 oz

	2005	2006
Chemical	325	345
Electrical	360	425
Glass	360	325
Petroleum	150	185
Other	465	480
Total	**1,660**	**1,760**

JM

Demand for platinum in electrical and electronic applications is expected to grow for the third year in a row, by 18 per cent, to 425,000 oz. The major contribution to this will be consumption of the metal in computer hard disks. Manufacturers continue to expand their Asian production facilities to meet demand for hard disks in computers and other devices such as personal music players and digital video recorders.

Net purchases of platinum for petroleum refining will move 35,000 oz higher in 2006, reaching 185,000 oz. With oil prices above $70 for much of the year, there has been pressure on refineries to operate at full capacity. This has led to high replacement rates and more top-up charges for their catalysts. Significant refining capacity is presently scheduled for construction around the Rest of the World region, further improving the prospects for platinum uptake from this application in the future.

The chemical sector's platinum requirements are expected to climb 20,000 oz higher, to an annual 345,000 oz. Demand for platinum gauze for nitric acid production should be stable this year but the use of platinum-based process catalysts, such as those used in the manufacture of silicones, will grow.

By contrast, purchases of platinum in the glass industry are forecast to decrease by 35,000 oz in 2006, to a still respectable 325,000 oz. There has been increased uptake of metal by North American glass fibre manufacturers after the small amounts bought in 2005. This will be used in expanding capacity and replacing operating losses from the platinum-rhodium bushings used in the manufacturing process. A number of television glass plants are expected to close this year, releasing metal back onto the market.

Elsewhere, demand for platinum from the glass industry is down, particularly in Asia. Manufacturers there have invested in production facilities for LCD glass, which are not yet operating at full capacity. This is expected to lead to a slight downturn in the rate of new furnace construction and platinum demand, despite the increasing use of LCD glass in televisions and monitors.

Other industrial applications will consume 480,000 oz of platinum in 2006, slightly up on last year. High prices are negatively affecting some segments, such as the European dental market where demand is likely to fall. However, many other minor uses should still show modest increases in metal requirements.

INVESTMENT

Demand for physical investment products is forecast to be negative for 2006, with net sales of 30,000 oz back into the market, primarily due to disinvestment of large bars in Japan.

Demand for the minting of platinum coins is expected to total 30,000 oz in 2006. The introduction of a new proof coin, in the form of the Discover Australia series, will offset falling demand for American-minted Platinum Eagles.

In Japan, high Yen prices stimulated net selling back of large investment bars by investors in the first nine months of 2006. Sales were particularly high as platinum moved above the ¥4,000 mark in February and around May's peak. At the same time, high prices decreased the weight of platinum bought. The net result is that the Japanese investment sector is expected to supply 60,000 oz of platinum back onto the market over the course of the year. Retail investment demand in other regions remains at low levels.

Platinum Demand: Investment
'000 oz

	2005	2006
Coins and small bars		
Europe	0	0
Japan	0	0
North America	25	25
Rest of the World	5	5
Large bars in Japan	**(15)**	**(60)**
Total	**15**	**(30)**

JM

PALLADIUM

AUTOCATALYST

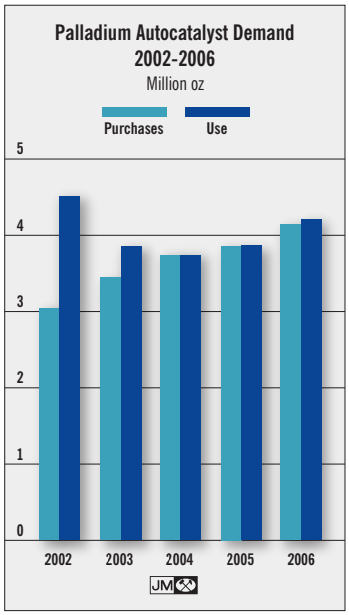
Purchases of palladium for use in autocatalysts are forecast to increase by 7 per cent in 2006, from 3.87 million ounces to 4.14 million ounces. Tightening legislation and ongoing efforts to reduce costs by replacing platinum in gasoline three-way catalysts have boosted palladium demand in Japan, North America and the Rest of the World region. However, demand from European car manufacturers will fall once again, due to a decrease in production and sales of gasoline vehicles.

Europe

Palladium demand in the European autocatalyst sector is expected to fall by 5,000 oz to 965,000 oz in 2006. The continuing increase in diesel's market share has affected sales of gasoline vehicles despite modest growth in the light duty automotive market.

Nonetheless, high prices have encouraged a shift of some of the platinum still used in gasoline cars to cheaper palladium, supporting palladium demand. The introduction of Euro IV legislation in January 2006 provided the opportunity for this change, which is increasing palladium loadings per gasoline vehicle slightly. Some of this growth is due to the introduction of the first diesel catalysts using palladium alongside platinum. Further use of this technology is expected in 2007.

Palladium purchases by the auto makers have fallen below metal use, due to a reduction in working stocks.



Japan

Japanese autocatalyst demand for palladium is forecast to rise from 665,000 oz to 765,000 oz. With domestic light duty vehicle production growing only slowly, palladium demand has been driven by higher average loadings in catalysts fitted to vehicles for sale in Japan and abroad. This increase in palladium content is due to tightening emissions standards in many areas and the move to replace platinum with palladium where feasible.

North America

Consumption of palladium by the North American auto industry is forecast to increase in 2006 to 1.51 million ounces, 5 per cent higher than in the previous year.

US emissions legislation continues to tighten, forcing some metal loadings higher despite ongoing efforts to thrift precious metal. Most manufacturers are also replacing platinum as much as possible in their three-way catalysts, raising the average palladium content per vehicle and increasing overall demand compared with 2005. Some of the growth in palladium demand is due to its introduction alongside platinum in diesel catalysts.

Despite a steep decrease in domestic manufacture by the Big Three, continued growth in North American output from Asian car manufacturers has limited the drop in overall vehicle production to only 2 per cent.

Of longer term interest, a trend towards greater fuel efficiency may be developing, driven by high fuel prices. This could allow smaller vehicles and diesel technology to increase their market share, both of which would tend to reduce palladium usage.

Palladium Demand: Autocatalyst
'000 oz

	2005	2006
Europe	970	965
Japan	665	765
North America	1,430	1,505
Rest of the World		
China	170	205
Other	635	700
Total	**3,870**	**4,140**
Autocatalyst Recovery	**(630)**	**(805)**

JM

China

The Chinese automotive industry is expected to consume 205,000 oz of palladium in 2006, a jump of roughly a fifth from 2005. The number of light duty vehicles manufactured in China should grow from 5.2 million in 2005 to 6.2 million, contributing to much of this rise. More effective higher-loaded catalysts are also being fitted by foreign manufacturers in this market.

Rest of the World

Autocatalyst demand for palladium in the Rest of the World region is forecast to rise 65,000 oz to 700,000 oz in 2006. Vehicle production outside the traditional regions continues to increase. Growth rates in many areas are significantly above those in Europe, Japan and North America, with sales rising by double digit percentages this year in India and Argentina.

Autocatalyst Recovery

Palladium recovered from the recycling of catalytic converters is likely to increase by more than 25 per cent, from 630,000 oz last year to 805,000 oz in 2006. Volumes of metal recovered in Japan will be unchanged but the amount reclaimed elsewhere will grow significantly.

North American recovery should experience healthy growth due to increased scrapping of vehicles fitted with palladium catalysts around the middle of the last decade. European recovery is expected to be even stronger, increasing by over 30 per cent, driven by new legislation forcing recycling of end-of-life cars and by the higher palladium content of scrapped vehicles.

DENTAL

Palladium uptake by the dental sector is expected to be stable in 2006, at 815,000 oz. North American consumption is expected to rise but Japanese demand will drop by 10,000 oz.

Japan remains the major dental market, consuming over half of the metal used in this application. Increasing palladium prices in the first half of the year pushed the cost of dental alloys used above the level of the government subsidy, reducing metal consumption. We expect the subsidy to be increased above the alloy price later in the year, making the use of palladium attractive to dentists and reinvigorating interest. Full year demand should show a modest fall to 465,000 oz.

The other main market for dental alloys, North America, will grow by 4 per cent in 2006. Unlike in Japan, there is no state subsidy and demand is more readily affected by price. Palladium's continued cost advantage over gold has ensured healthy purchases of the white metal. In Europe, low relative prices are expected to maintain palladium demand at 75,000 oz.

Palladium Demand: Dental
'000 oz

	2005	2006
Europe	75	75
Japan	475	465
North America	250	260
Rest of the World	15	15
Total	**815**	**815**

JM

ELECTRONICS

The electronics industry is expected to consume 1.06 million ounces of palladium in 2006, up 90,000 oz on the year before. This strong performance reflects healthy demand for consumer electronics and palladium's use in a number of applications.

The multi-layer ceramic capacitor (MLCC) sector continues to be important, representing over half of all palladium consumption in electronics. Although substitution of nickel for palladium has been occurring in this market since 2001, it is expected to slow as many of the remaining applications are very much performance-driven and therefore less price-sensitive. The number of passive components per device, including MLCC, is rising rapidly as many new computers have multiple processors and each requires its own infrastructure. With consumer purchases of electronics growing strongly, total MLCC production will increase in 2006 and palladium consumption will rise for the first time in six years.

Palladium Demand: Electronics
'000 oz

	2005	2006
Europe	80	100
Japan	260	275
North America	195	190
Rest of the World	430	490
Total	**965**	**1,055**

JM

Palladium usage in plating connectors and leadframes is expected to firm, with demand rising by 8 per cent in 2006. Here palladium is benefiting from substitution for other materials such as gold and lead on cost or environmental grounds.

Booming mobile phone sales and the increasing use of electronics in automobiles should push palladium consumption in resistors higher by 10 per cent.

These demand figures are reported net of recycling. The amount of palladium recovered from end-of-life electronics is expected to fall by around 10 per cent this year, due to the continuously decreasing palladium content of each component recycled.

JEWELLERY

Net global purchases of palladium for use in jewellery manufacture are forecast to fall by 310,000 oz from last year's 1.43 million ounces to 1.12 million ounces in 2006. Despite palladium's low price relative to both gold and platinum, demand from the Chinese market is expected to drop 28 per cent from the peak of 1.2 million ounces a year ago. In the USA, palladium jewellery has started to attract interest from retailers and manufacturers.

Purchases of palladium by Chinese jewellery manufacturers are expected to decrease sharply to

860,000 oz this year, 28 per cent below 2005 levels. Analysis of imports into China via Hong Kong suggests smaller flows into the jewellery sector. Reports from the trade indicate reasonable levels of manufacturing but purchases of new metal have been negatively affected by recycling. Retail orders are down because of high inventories, the result of the very large amount of industry purchasing in 2005. Consumer interest in and awareness of palladium remains a key variable.

On its introduction into China in 2004, palladium jewellery was initially sold in the form of Pd950 (95 per cent purity) but manufacturers moved to Pd990 (99 per cent pure palladium) within a year. Market indications are that significant amounts of this earlier metal stock have been returned for refining this year, reducing our estimates for net demand.

Palladium jewellery is mainly being manufactured for the fashion sector in the form of cheaper, relatively lightweight pieces, rather than bridal rings. Its lower cost, compared to platinum, has made it more accessible to consumers outside major Chinese urban centres, where it is being sold alongside platinum, white gold and yellow gold pieces.

Most Chinese manufacturers now have the technical ability to work with palladium and are producing jewellery from it as well as from platinum. A sustained price differential between these metals has driven the market. In combination with low palladium lease rates, this allows cheaper metal financing and greater profits, especially for retailers.

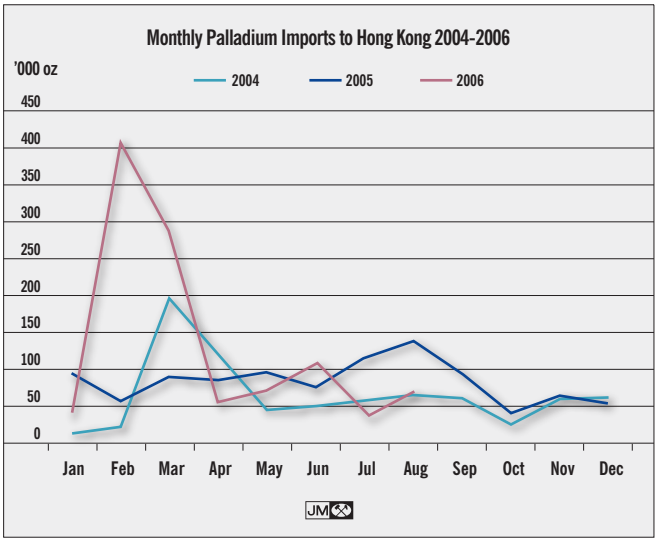
Palladium Demand: Jewellery
'000 oz

	2005	2006
Europe	35	40
Japan	145	150
North America	20	40
Rest of the World		
China	1,200	860
Other	30	30
Total	**1,430**	**1,120**

JM

In North America, interest in palladium and other novel materials has been growing, due to the recent exceptionally volatile behaviour of gold and platinum prices. Although consumption in this market will be relatively low this year, at around 40,000 oz, this could well increase in 2007 as manufacturer and retailer involvement continues to gather momentum.

Elsewhere, palladium's main use in jewellery is as a whitening agent in white gold alloys, particularly in Europe and Japan. This segment of the global jewellery market continues to contribute a steady annual demand of around 200,000 oz.



Imports of palladium to Hong Kong were particularly high in the first quarter of 2006, although much of this metal does not appear to have reached the jewellery trade.

OTHER

Demand for palladium in other applications is expected to drop to 525,000 oz, compared to 810,000 oz in 2005. Physical investment will fall, with higher prices driving demand lower and stimulating disinvestment. In the chemical industry, metal consumption in process catalysts will dip but will increase in nitric acid production.

New information has led us to revise our 2005 demand total for physical palladium investment upwards to 400,000 oz, significantly above the previously reported figure of 220,000 oz. In 2006, however, demand is expected to plummet to 120,000 oz, mostly in North America. Fewer new coins have been issued this year, while the higher average price for palladium has encouraged many retail investors to sell metal back into the market.

Palladium use in chemical catalysts is forecast to drop by 10,000 oz this year. Expansion of manufacturing capacity for purified terephthalic acid (PTA) in Asia is continuing but at a slower pace than in previous years.

Palladium demand for catchment gauze used in nitric acid manufacture has increased. These are used to absorb platinum displaced from the main catalyst gauze and their use should grow this year due to the increased value of platinum.

Palladium Demand: Other (including Chemicals)
'000 oz

	2005	2006
Europe	95	100
Japan	35	35
North America	520	235
Rest of the World	160	155
Total	**810**	**525**

JM

OTHER PLATINUM GROUP METALS

RHODIUM

Rhodium demand is forecast to climb by 2 per cent to 844,000 oz in 2006. Purchases of rhodium for exhaust catalysts by auto manufacturers will increase, due to growing production of vehicles in the Rest of the World region and to the continuing tightening of global emissions legislation. The glass industry is expected to consume less metal in 2006 than in 2005, due to an easing of the pace of construction of LCD glass manufacturing facilities.

Autocatalyst

Global autocatalyst demand for rhodium is forecast to rise by 44,000 oz to 874,000 oz in 2006. Although there have been some indications of strategic stock building this year, it has been at a low level, and usage will be close to the headline demand figure. We expect rhodium use on vehicles to be near 2005 levels in Europe and North America but to grow elsewhere.

Although new Euro IV emissions limits were only implemented in early 2006, many gasoline vehicles in Europe were already being fitted with catalysts to meet these regulations in 2005. On average, rhodium levels per car are not expected to change over the year.

Rhodium Supply and Demand
'000 oz

	2005	2006
Supply		
South Africa	628	702
Russia	90	60
North America	20	20
Others	17	19
Total Supply	**755**	**801**
Demand		
Autocatalyst: gross	830	874
recovery	(137)	(159)
Chemical	47	48
Electrical	9	9
Glass	60	49
Other	19	23
Total Demand	**828**	**844**
Movements in Stocks	**(73)**	**(43)**

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North American rhodium consumption will also be virtually unchanged in 2006. Rhodium is used to reduce emissions of oxides of nitrogen (NOx) but the auto makers continue to work on cutting engine-out emissions of this pollutant, and therefore limiting or even decreasing the amount of rhodium required.

Japanese manufacturers are expected to increase their level of rhodium demand this year. The amount of metal needed for the domestic market will not change but the rhodium content of many models manufactured for export will increase, reflecting stricter environmental legislation around the world. Likewise, rising production in the Rest of the World region and some new emissions regulations will increase rhodium uptake. A few manufacturers have bought metal for strategic inventory despite the high rhodium price, but overall additions to stock are likely to be relatively low for the year.

Rhodium recovery from scrapped autocatalysts will increase again in 2006, by 16 per cent, to 159,000 oz. Much of this growth will come from the increasing volumes and loadings of catalysts being recycled in North America. Although recycling rates will increase in Europe, the net benefit in terms of rhodium recovery will be small due to a greater proportion of diesel vehicles entering the recycling chain. Volumes of metal recovered elsewhere are forecast to be flat.

Other Demand

Demand for rhodium from the glass industry is expected to fall by 11,000 oz in 2006 to 49,000 oz. Much of this metal is being used in the manufacture of glass for flat panel displays (LCD and plasma screens). Although the market share of television and computer screens which is taken by these technologies is expanding rapidly, production capacity has run ahead of consumer demand. This has meant that fewer glass furnaces (the location where rhodium is used) are scheduled to be commissioned this year than in 2005 and metal demand will be lower in 2006.

There will be little change in consumption of rhodium in the chemical industry this year. A main use of the metal is in a catalyst for acetic acid manufacture. Although 2006 has not seen significant expansion of global acetic acid production capacity, this industry is predicted to resume its growth in 2007.

RUTHENIUM & IRIDIUM

Demand for ruthenium is expected to climb by 13 per cent in 2006, to 940,000 oz. This increase will be driven by growing requirements from the electronics industry. Ruthenium demand in chemical and electrochemical end uses will be stable. Iridium demand for 2006 will rise marginally to 136,000 oz compared to 134,000 oz for the previous year, with growth coming from the chemical sector.

After a 33 per cent jump in the use of ruthenium in the electronics industry last year, demand will rise a

further 15 per cent to 595,000 oz in 2006.

Ruthenium demand is being driven by developments in computer hard disks. It is used as a thin layer, in addition to platinum, in some high storage capacity hard disks in order to improve their performance. The growth in demand for this technology is therefore raising ruthenium consumption sharply in 2006.

Demand for chip resistors and hybrid integrated circuits (HIC) is growing. Use of these components, in which ruthenium pastes are a key ingredient, is being boosted by increases in the functionality and computing power of a variety of devices and automotive electronics. Ruthenium use in the production of flat screen plasma display panels will also be higher this year, as this technology further penetrates the displays market.

Ruthenium Demand by Application
'000 oz

	2005	2006
Chemical	152	151
Electrochemical	96	95
Electronics	517	595
Other	69	99
Total Demand	**834**	**940**

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Outside the electronics industry, ruthenium demand from chemical and electrochemical applications is forecast to be flat in 2006 at 246,000 oz. While ruthenium use in process catalysts remains substantial, demand is mainly dependent on construction of new chemical plant capacity. The acetic acid industry has been a good source of demand for ruthenium catalysts in recent years but with fewer acetic acid production facilities being built in 2006, demand will edge lower.

Global iridium demand is forecast to grow to 136,000 oz, boosted by strong demand from a range of chemical and electrochemical applications. Iridium's use in vehicular spark plugs will also rise by 7 per cent in 2006. This technology offers significantly improved performance over other metals and its market share is increasing steadily in many sectors.

Offsetting this, the use of iridium by the electronics industry to make crucibles for crystal growing is expected to dip to 28,000 oz from 31,000 oz. After heavy expansion of production capacity in recent years, growth is slowing, resulting in a decrease in iridium requirements, despite high demand for crystals in a range of electronic applications.

Iridium Demand by Application
'000 oz

	2005	2006
Chemical	25	33
Electrochemical	28	29
Electronics	31	28
Other	50	46
Total Demand	**134**	**136**

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OTHER PGM SUPPLIES

Rhodium

Total rhodium supply will grow by 6 per cent to 801,000 oz in 2006. This gain of 46,000 oz will arise mainly from an increase in rhodium produced in South Africa. Platinum production is expanding, and rhodium output has risen accordingly. Much of this year's expansion in South Africa has come from increased exploitation of UG2 ore, which generally has a higher rhodium content than Merensky reef.

After last year's changes in Anglo Platinum's refining circuit released metal, first half rhodium production was down by 15 per cent to 147,000 oz. Output is expected to pick up again over the rest of the year. The increase in UG2 ore mined at the Impala Platinum lease area also supported rhodium output there despite a drop in platinum production.

To date, there has been no indication that sales of Russian rhodium have been made from stock, and we expect shipments for the full year to be in line with Norilsk Nickel's estimated production of 60,000 oz, a third lower than total sales in 2005.

With consumption of rhodium concentrated in only a relatively small number of end uses, further growth in autocatalyst rhodium demand has offset much of the increased supply and the market is set to remain in deficit in 2006. Continued purchases by the automotive industry and by LCD glass manufacturers have supported the price throughout most of the year to date, lifting the Johnson Matthey base price from $3,000 at the start of the year to above $6,000 in May, ending September at $4,800.

Ruthenium & Iridium

The expansion of platinum production in South Africa continues to increase output of the minor pgms. Much of the growth in mining is in UG2 ore which is richer in these metals than Merensky reef. As demand for both iridium and ruthenium has continued rising, supply and demand remain finely balanced; prices of both have doubled in 2006.

Further information on prices can be found on pages 22 & 23 of this review.

PRICES & FUTURES MARKETS

PLATINUM

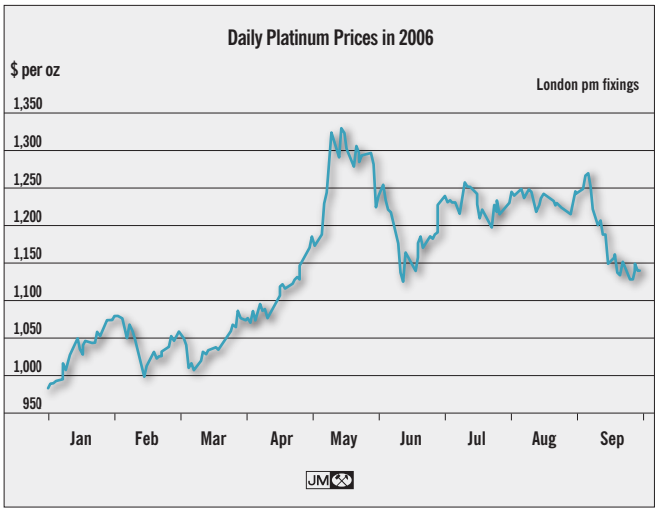
Over the first nine months of 2006, platinum supplies increased at a similar pace to demand. Although these positive market fundamentals provided support to the price, most of the gains made were due to fund buying and movements in other commodities. Although the US dollar, gold and oil were prime factors in the price movements, the supply-demand balance helped platinum just outperform the yellow metal.

The low for the year to September was on January 3rd at $982, and the price moved higher for the rest of the month before pausing for much of February and March. April saw the market reinvigorated and recording a succession of all-time highs to reach $1,335 in May. A wider correction in commodities forced the price to a low of $1,125 in mid-June before it rallied back above $1,200. Fund sales of many commodities in September drove the price lower to end at $1,140.

The platinum price started 2006 in positive fashion. The first London fix of the year, at $982, was $18 higher than the final one of 2005. Prices were driven higher by increased speculative buying on NYMEX and TOCOM during **January**. Sustained fund interest pushed platinum to $1,049 on the 16th, above the previous all-time record of $1,047.50 set in March 1980. Investors on TOCOM targeted the ¥4,000 per gram level, which was breached for the first time ever on January 30th - the far-dated contract closing at ¥4,059. This helped the price to end the month at a new peak of $1,072.

In **February**, platinum tracked the gold price. In the first two weeks, funds liquidated long positions in many commodities. Platinum plunged to $997 on the 16th before finding support from investors and purchases by the Chinese jewellery trade. Prices started rising and, with large daily gains, much of the month's loss was recouped as the price bounced back to $1,051.

The platinum price continued to rise at the start of **March**, led by silver which topped $10, its highest level since 1987. It then fell back, with long liquidation on the futures markets. Support appeared around $1,000 with physical buying in the Far East. The month's low was $1,006 on the 10th. At this point, all the precious metal markets turned around. As gold led the way, reaching its highest level for 25 years at $584, platinum peaked at a new record of $1,084 on the 30th.



Platinum set a series of record prices in the first half of 2006, reaching $1,335 in May.

Movements in the US dollar and commodity prices dominated the market throughout **April**. A bout of profit-taking depressed the price over the first few days, with platinum trading in a new range of $1,060 to $1,080. A weak dollar, however, prompted gold to move higher on the 6th. Platinum followed suit and fixed at $1,084 on the same day. With metal prices buoyant, platinum pressed higher as NYMEX net speculative long interest increased by 90,000 oz over the month.

This momentum continued into **May**, as the oil price rose relentlessly, pulling other commodities in its slipstream. Fund interest continued even at these historically high prices and market players watched the $1,200 point to see whether this would prove to be a barrier. In the event, platinum defied a softening oil price and finally fixed above this level on 9th May, at $1,206, driven by speculative buying. With no new ceiling evident, the price shot up to $1,259 twenty-four hours later. However, with gold rising to a remarkable $725.75, platinum was still subject to upward pressure and continued industrial purchasing drove it to its highest level ever of $1,335 on 12th May (above the €1,000 mark). Some profit-taking saw the price dip but stirred renewed physical interest. With growth in autocatalyst demand for platinum offsetting a weaker jewellery sector, the continuing strong fundamentals

Average PGM Prices in $ per oz (Jan-Sep)

	2005	2006	Change
Platinum	877.12	1,146.86	31%
Palladium	189.00	319.64	69%
Rhodium	1,779.32	4,401.20	147%
Iridium	163.25	333.04	104%
Ruthenium	71.03	153.17	116%

Platinum and palladium prices are averages of London am and pm fixings. Other pgm prices are averages of Johnson Matthey European base prices

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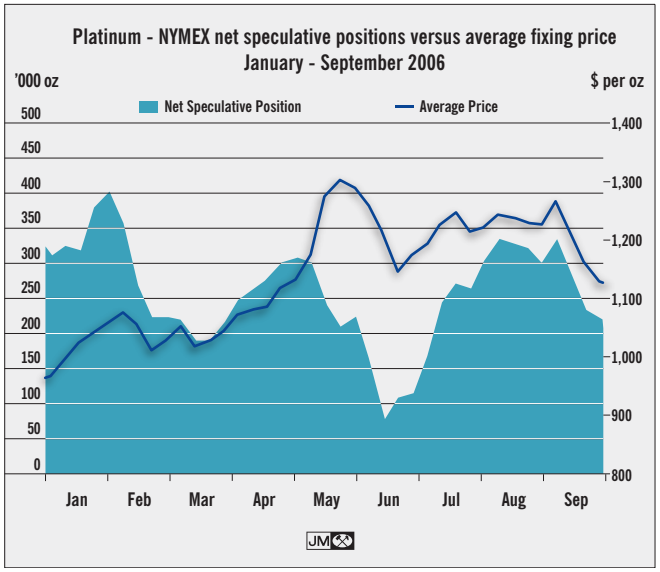
and bullish commodity market provided support to the record prices. Nonetheless, net long positions on NYMEX fell over the month, from 308,000 oz to 224,000 oz, as speculators took profits and, amid extreme daily volatility, the price softened to end at $1,280.

This downward momentum continued through the first half of **June**. Prices fell more sharply as the value of many commodities and emerging markets tumbled, accompanied by a further large reduction in net speculative long positions on NYMEX to 80,000 oz on the 13th. Platinum hit its low for the month on the 14th, fixing at $1,125, a loss of $200 in only four weeks, as gold hit $567.75. Trading volumes increased on the Shanghai Gold Exchange, as end users took advantage of lower prices to purchase metal, forcing the price up. Decreasing expectations of future US interest rate rises weakened the dollar late in the month and drove platinum up to start July at $1,243.

After the turbulence of preceding months, **July** was much calmer and platinum settled between $1,200 and $1,260 with few excursions outside this range. Early in the month, the Israeli invasion of Lebanon sent oil sharply higher, dragging gold and platinum with it. On the 12th, platinum reached $1,258 in London as net NYMEX long positions increased by 105,000 oz in just two weeks. The price then drifted before a wider commodity sell-off sent it back just below $1,200.

Asian buying returned at this level but the previous upwards momentum had dissipated, moving the price sideways into **August** within a narrowing range. Despite very thin trading, volatility decreased. A lack of clear direction for the gold price left platinum listless and a jump of $18 on the last day represented the entire monthly gain, leaving platinum at $1,245.

Traders came back after the holiday season and the price ratcheted higher to $1,268 on **September** 6th. Falling natural gas prices then forced a sell-off of other commodities at several hedge funds which had held large long energy positions. This created a seller's market, driving oil and gold lower. Platinum spiralled down to $1,132 on the 20th before stabilising. The lower platinum price brought out more physical purchasing, again demonstrating the strong market fundamentals. OPEC supported the oil price towards the end of September by announcing likely production cuts. Commodity prices rallied a little in response and platinum closed the third quarter at a firmer $1,140.



Speculative positions in platinum on NYMEX led short term price movements but showed no definite trend in the first nine months of 2006.

PALLADIUM

The palladium price was buffeted by the same drivers as platinum for the first nine months of 2006. Key factors were the strength of the US dollar and the behaviour of gold and platinum. Considerable fund interest, as shown in very large long positions on NYMEX, put upward pressure on the price. Despite weak market fundamentals, palladium was boosted by these external forces and climbed 21 per cent from $261 at the start of the year to $315 at the end of September.

The price of palladium was relatively stable during **January**, compared with platinum which reached a new all-time peak. The metal traded largely between $260 and $280, with modest changes in fund positions. However, on the last day of the month, speculative buying in platinum spilled over into palladium and forced the price up to $290. At the start of **February**, with heavy trading on the fix, prices moved towards $300. The continued belief by many hedge funds that palladium was undervalued compared to other precious metals had encouraged a rise in long positions on NYMEX to over 1 million ounces (much greater than in platinum) before they decreased and drove the price back from a peak of $315 on the 3rd.

The price weakened through early February, to $273, due to a sell-off in gold and heavy selling of Russian metal. The $300 level proved to be a barrier for the following weeks. Although platinum recovered some

of its loss, palladium traded the month out in a range of $280 - $290, waiting for the next stimulus.

This came at the start of **March**. With gold and silver prices buoyant, palladium moved above $300. It fixed at $305 on the 3rd before slipping back as fund liquidation drove gold down. The link with other commodity prices drove a recovery from a low of $283 on the 9th, palladium following gold and silver higher. With healthy buying on the fix, palladium rose through $300 and the price ended the quarter at a strong $332.

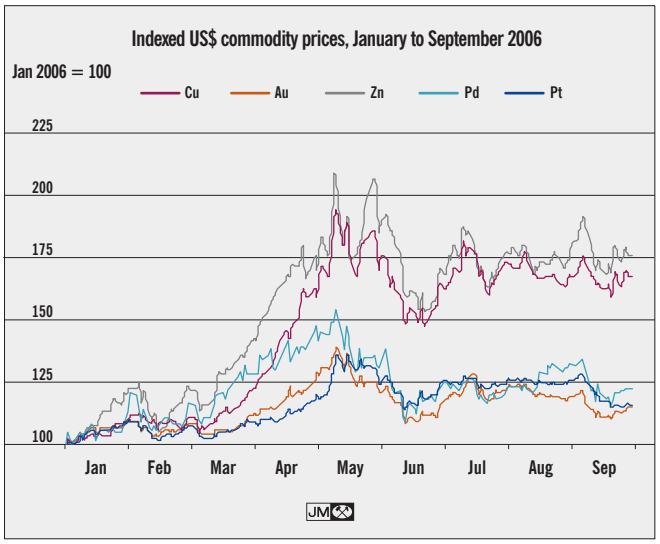
Rising gold and platinum prices led palladium gently higher in **April**, into a range of $350 - $370 as net long speculative positions on NYMEX hit 1.1 million ounces. Very high volatility and fund interest continued to drive the price up. In early **May**, palladium rose $16 to $378 under pressure from continuing physical demand.

Speculative buying took platinum through $1,200 and helped palladium to a four-year high of $404 on the 12th. The ebullience that had spilled over into palladium from the platinum market then dried up, with profit-taking being seen, and the price retreated to end May lower overall at $355.

This slide continued through the first half of **June**. As platinum dropped, caught up in a commodity sell-off, palladium was knocked out of its pattern, plummeting to $282 on the 13th, a 30 per cent decrease in little over a month. The price then rebounded, supported by US economic data, despite a relative scarcity of physical bids. With other commodity prices advancing, palladium recovered to $312 by the end of the month.

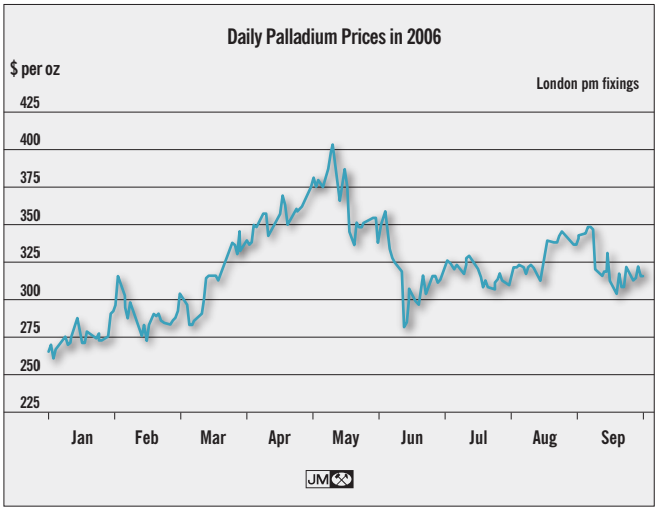
With trading volumes and physical demand lower, geopolitical events provided some support in **July.** However, palladium softened and it fell out of its range of $320 - $330 on the 18th. For the rest of the month, it traded between $300 - $320, without testing the $300 level for support. At the start of **August**, a weak dollar caused a jump to $323 from which palladium drifted. In the middle of the month, fund interest decoupled the palladium price from platinum's, moving it to $339 on the 17th.

September saw a more active market, with the price crawling higher to $351 on the 7th. As energy prices then fell, commodities followed and palladium slid to fix at $303 on the 20th. The spot market dipped below $300 but physical buying reinvigorated the price, leaving it at $315 at the end of the quarter.



Although precious metal prices rose in the first half of 2006, they did not keep pace with many other commodities.

Palladium outperformed platinum from January to September 2006, rising 21 per cent despite falling back from a peak of $404 in May.



OTHER PGM

The rhodium price continued its three-year climb. The Johnson Matthey base price started the year at $3,000, just below its fourteen-year peak established in November 2005. Volatility and price movements were significant throughout much of the first nine months of 2006, with the price reaching $6,275 in mid-May, driven by strong fundamentals and thin trading. The price then lost a third of its value to a low of $4,175 by the middle of June. After this activity, market conditions became quieter and rhodium ended September at $4,800.

Physical demand and some speculative interest also drove ruthenium and iridium prices higher.

Ruthenium rose from $87 to $185 while iridium more than doubled, from an initial $195 to $400.

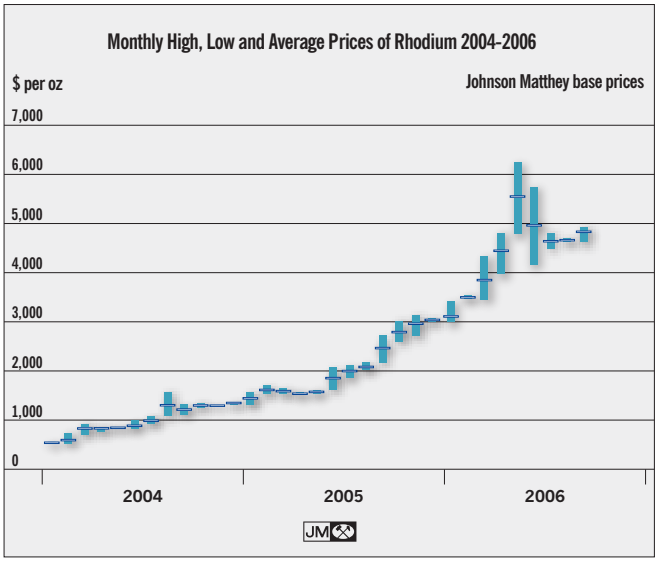
Rhodium demand was strong throughout **January** and limited offers on the open market led the price up to $3,500 early in **February**. It then traded in a fairly narrow range around this point before striking upwards again at the start of **March**. Spot demand remained firm and tight supply onto the markets sent the price spiralling to $4,350 on the 27th.

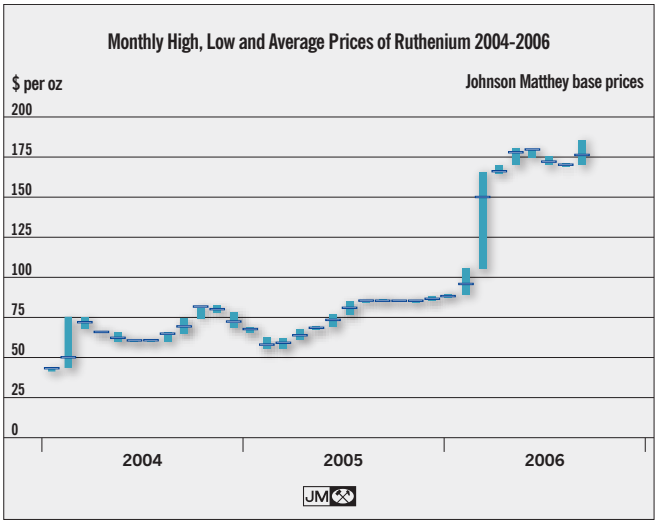
At the start of **April**, offers appeared on the scene and bids disappeared. The price moved into reverse as quickly as it had climbed, falling to $4,000. With physical buying by the glass and automotive sectors returning, the price shot up again (on 22nd **May**) to $6,275, its highest point since 1990. Leading up to this, the metal had risen by a hefty $900 in one week.

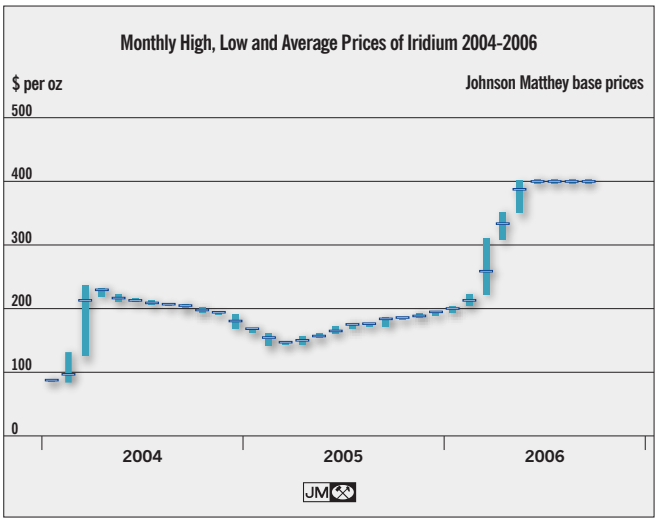
At this level, no purchasers could be found and the price reversed in extremely thin trading conditions, with wide dealer spreads and exceptional volatility. The Comdaq fix on the 9th of **June** exemplified this as the price dropped by $800 with a few small offers attracting no bids whatsoever. Rhodium ploughed on to hit a low of $4,175 on the 15th before recovering as the market shifted again. With buying reappearing, the price overshot the $5,000 level before dropping to around $4,500 in mid-**July**. The price was static in **August**, at $4,650, with thin volumes of two-way trading. At the start of **September**, some activity came back into the market, the price firmed and started to climb slowly higher, peaking on the 15th at $4,940. A drop in the other platinum group metals slowed and then reversed this move and the rhodium price softened, ending at $4,800.

Some of this excitement carried over to ruthenium and iridium. Ruthenium climbed from a **January** starting point of $87 to a four-year peak of $105 in **February**, driven by strong fundamentals. Continuing physical demand was most evident in **March** as the price rose by $60 to $165, further boosted by speculative interest. It reached a new record of $180 on the 12th of **May** before softening to $170 in mid-**July**. With physical purchasing continuing, ruthenium inched higher to $185 by the end of **September**.

The iridium price was supported by steady industrial purchasing, more than doubling in the first nine months of 2006, from an initial $195 to a Johnson Matthey base price of $400, its highest since the end of 2001.

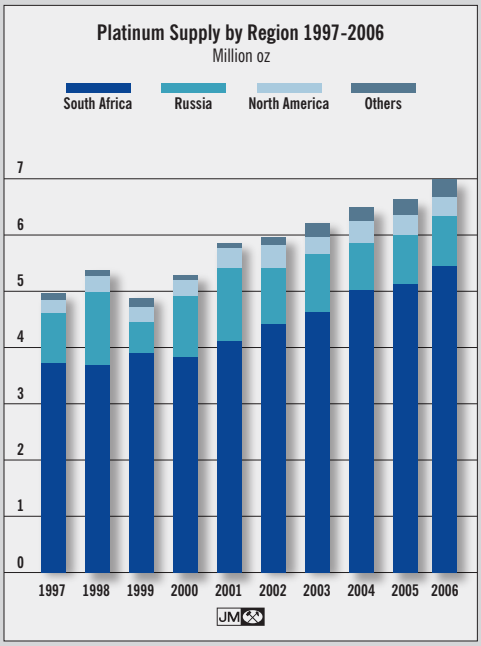


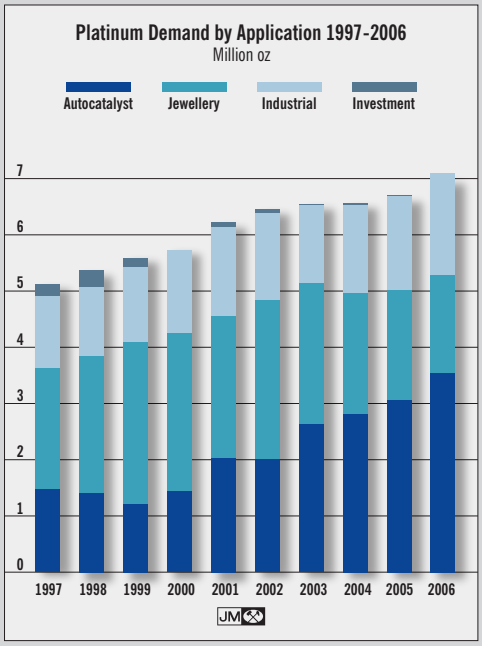




Platinum Supply and Demand

'000 oz	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Supply										
South Africa	3,700	3,680	3,900	3,800	4,100	4,450	4,630	5,010	5,115	**5,430**
Russia	900	1,300	540	1,100	1,300	980	1,050	845	890	**895**
North America	240	285	270	285	360	390	295	385	365	**365**
Others	120	135	160	105	100	150	225	250	280	**310**
Total Supply	**4,960**	**5,400**	**4,870**	**5,290**	**5,860**	**5,970**	**6,200**	**6,490**	**6,650**	**7,000**
Demand by Application										
Autocatalyst: gross	1,830	1,800	1,610	1,890	2,520	2,590	3,270	3,490	3,820	**4,380**
recovery	(370)	(405)	(420)	(470)	(530)	(565)	(645)	(690)	(770)	**(830)**
Chemical	235	280	320	295	290	325	320	325	325	**345**
Electrical	305	300	370	455	385	315	260	300	360	**425**
Glass	265	220	200	255	290	235	210	290	360	**325**
Investment: small	180	210	90	40	50	45	30	30	30	**30**
large	60	105	90	(100)	40	35	(15)	15	(15)	**(60)**
Jewellery	2,160	2,430	2,880	2,830	2,590	2,820	2,510	2,160	1,965	**1,740**
Petroleum	170	125	115	110	130	130	120	150	150	**185**
Other	295	305	335	375	465	540	470	470	465	**480**
Total Demand	**5,130**	**5,370**	**5,590**	**5,680**	**6,230**	**6,470**	**6,530**	**6,540**	**6,690**	**7,020**
Movements in Stocks	**(170)**	**30**	**(720)**	**(390)**	**(370)**	**(500)**	**(330)**	**(50)**	**(40)**	**(20)**



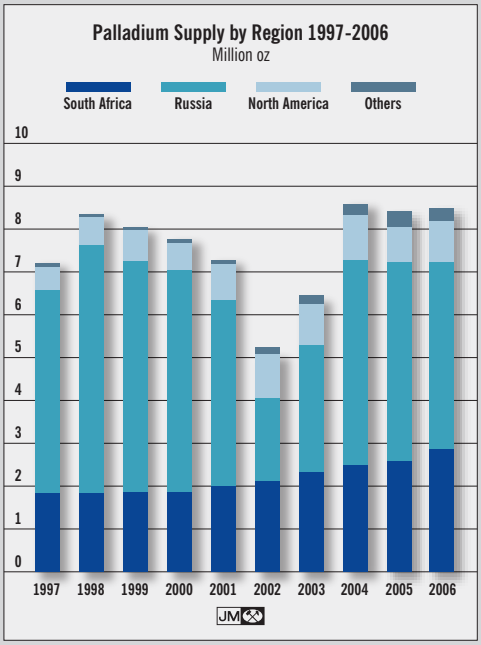


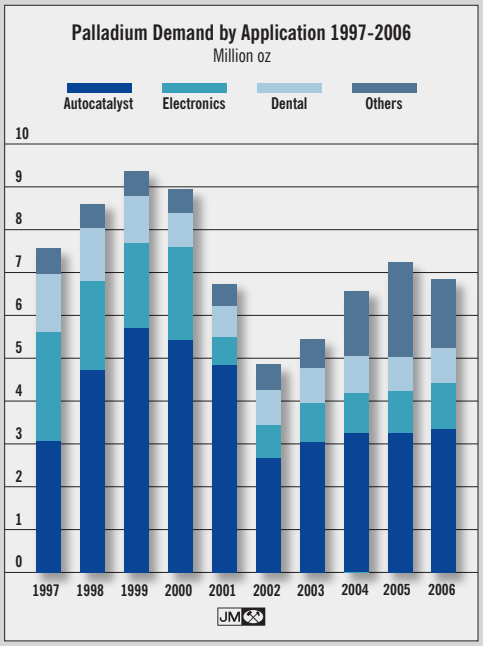
Platinum Demand by Application: Regions

'000 oz	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Europe										
Autocatalyst: gross	510	545	560	680	1,060	1,210	1,455	1,680	1,950	**2,250**
recovery	(25)	(30)	(30)	(40)	(70)	(90)	(115)	(145)	(170)	**(190)**
Chemical	70	60	80	100	105	115	105	115	100	**100**
Electrical	45	45	70	80	65	40	35	40	40	**45**
Glass	20	25	20	20	10	10	10	5	10	**15**
Investment: small	5	5	5	0	0	0	0	0	0	**0**
Jewellery	150	160	185	190	170	160	190	195	195	**175**
Petroleum	15	15	15	15	15	15	15	15	15	**15**
Other	85	85	90	105	155	190	185	190	170	**180**
Total	**875**	**910**	**995**	**1,150**	**1,510**	**1,650**	**1,880**	**2,095**	**2,310**	**2,590**
Japan										
Autocatalyst: gross	255	240	250	290	340	430	500	615	600	**565**
recovery	(50)	(55)	(60)	(60)	(55)	(55)	(60)	(55)	(35)	**(35)**
Chemical	20	20	20	20	25	30	40	40	55	**55**
Electrical	65	55	75	90	80	55	40	50	65	**70**
Glass	85	80	65	65	85	60	85	90	95	**90**
Investment: small	25	25	20	5	5	5	5	0	0	**0**
large	60	105	90	(100)	40	35	(15)	15	(15)	**(60)**
Jewellery	1,390	1,290	1,320	1,060	750	780	660	560	510	**450**
Petroleum	5	5	5	5	5	5	5	5	5	**10**
Other	30	30	35	35	35	55	40	40	45	**45**
Total	**1,885**	**1,795**	**1,820**	**1,410**	**1,310**	**1,400**	**1,300**	**1,360**	**1,325**	**1,190**
North America										
Autocatalyst: gross	800	775	535	620	795	570	885	800	820	**950**
recovery	(290)	(310)	(315)	(350)	(370)	(380)	(420)	(435)	(505)	**(545)**
Chemical	80	80	95	100	100	100	95	90	100	**105**
Electrical	100	105	120	145	120	100	85	90	95	**100**
Glass	45	20	25	50	35	30	(30)	(10)	5	**10**
Investment: small	145	175	60	35	45	40	25	25	25	**25**
Jewellery	160	270	330	380	280	310	310	290	275	**240**
Petroleum	50	40	40	35	40	45	40	35	30	**35**
Other	160	170	190	210	250	265	215	205	210	**215**
Total	**1,250**	**1,325**	**1,080**	**1,225**	**1,295**	**1,080**	**1,205**	**1,090**	**1,055**	**1,135**
Rest of the World (inc. China)										
Autocatalyst: gross	265	240	265	300	325	380	430	395	450	**615**
recovery	(5)	(10)	(15)	(20)	(35)	(40)	(50)	(55)	(60)	**(60)**
Chemical	65	120	125	75	60	80	80	80	70	**85**
Electrical	95	95	105	140	120	120	100	120	160	**210**
Glass	115	95	90	120	160	135	145	205	250	**210**
Investment: small	5	5	5	0	0	0	0	5	5	**5**
Jewellery	460	710	1,045	1,200	1,390	1,570	1,350	1,115	985	**875**
Petroleum	100	65	55	55	70	65	60	95	100	**125**
Other	20	20	20	25	25	30	30	35	40	**40**
Total	**1,120**	**1,340**	**1,695**	**1,895**	**2,115**	**2,340**	**2,145**	**1,995**	**2,000**	**2,105**

Palladium Supply and Demand

'000 oz	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Supply										
South Africa	1,810	1,820	1,870	1,860	2,010	2,160	2,320	2,480	2,605	**2,855**
Russia	4,800	5,800	5,400	5,200	4,340	1,930	2,950	4,800	4,620	**4,370**
North America	545	660	630	635	850	990	935	1,035	905	**955**
Others	95	120	160	105	120	170	245	265	280	**300**
Total Supply	**7,250**	**8,400**	**8,060**	**7,800**	**7,320**	**5,250**	**6,450**	**8,580**	**8,410**	**8,480**
Demand by Application										
Autocatalyst: gross	3,200	4,890	5,880	5,640	5,090	3,050	3,450	3,790	3,870	**4,140**
recovery	(160)	(175)	(195)	(230)	(280)	(370)	(410)	(530)	(630)	**(805)**
Chemical	240	230	240	255	250	255	265	310	325	**315**
Dental	1,350	1,230	1,110	820	725	785	825	850	815	**815**
Electronics	2,550	2,075	1,990	2,160	670	760	900	920	965	**1,055**
Jewellery	260	235	235	255	240	270	260	930	1,430	**1,120**
Other	140	115	110	60	65	90	140	290	485	**210**
Total Demand	**7,580**	**8,600**	**9,370**	**8,960**	**6,760**	**4,840**	**5,430**	**6,560**	**7,260**	**6,850**
Movements in Stocks	**(330)**	**(200)**	**(1,310)**	**(1,160)**	**560**	**410**	**1,020**	**2,020**	**1,150**	**1,630**





Palladium Demand by Application: Regions

'000 oz	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Europe										
Autocatalyst: gross	1,100	1,370	1,530	1,900	1,730	1,370	1,220	1,105	970	**965**
recovery	(5)	(5)	(10)	(15)	(30)	(45)	(70)	(110)	(165)	**(220)**
Chemical	70	65	65	95	65	70	65	70	75	**80**
Dental	260	210	180	100	50	55	70	80	75	**75**
Electronics	340	270	255	265	35	85	85	115	80	**100**
Jewellery	50	50	50	45	35	35	35	35	35	**40**
Other	25	25	25	20	20	15	20	25	20	**20**
Total	**1,840**	**1,985**	**2,095**	**2,410**	**1,905**	**1,585**	**1,425**	**1,320**	**1,090**	**1,060**
Japan										
Autocatalyst: gross	245	480	600	510	505	520	550	635	665	**765**
recovery	(45)	(50)	(55)	(50)	(40)	(40)	(40)	(40)	(30)	**(30)**
Chemical	20	20	20	20	20	20	25	25	25	**25**
Dental	620	590	545	470	475	505	515	520	475	**465**
Electronics	1,390	1,060	980	990	260	140	225	235	260	**275**
Jewellery	110	105	105	150	140	165	160	155	145	**150**
Other	10	10	10	15	10	10	5	10	10	**10**
Total	**2,350**	**2,215**	**2,205**	**2,105**	**1,370**	**1,320**	**1,440**	**1,540**	**1,550**	**1,660**
North America										
Autocatalyst: gross	1,680	2,820	3,490	2,805	2,375	640	1,205	1,445	1,430	**1,505**
recovery	(105)	(115)	(125)	(155)	(200)	(260)	(270)	(345)	(390)	**(500)**
Chemical	70	70	75	65	75	75	70	85	85	**80**
Dental	415	390	350	230	190	215	225	235	250	**260**
Electronics	550	460	405	485	250	210	215	185	195	**190**
Jewellery	10	10	10	10	10	10	10	10	20	**40**
Other	55	55	50	5	15	45	95	230	435	**155**
Total	**2,675**	**3,690**	**4,255**	**3,445**	**2,705**	**925**	**1,540**	**1,845**	**2,025**	**1,730**
Rest of the World (inc. China)										
Autocatalyst: gross	175	220	260	425	480	520	475	605	805	**905**
recovery	(5)	(5)	(5)	(10)	(10)	(25)	(30)	(35)	(45)	**(55)**
Chemical	80	75	80	75	90	90	105	130	140	**130**
Dental	55	40	35	20	10	10	15	15	15	**15**
Electronics	270	285	350	420	125	325	375	385	430	**490**
Jewellery	90	70	70	50	55	60	55	730	1,230	**890**
Other	50	25	25	20	20	20	20	25	20	**25**
Total	**715**	**710**	**815**	**1,000**	**770**	**1,000**	**1,015**	**1,855**	**2,595**	**2,400**

Rhodium Supply and Demand										
'000 oz	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Supply										
South Africa	377	400	410	457	452	490	544	587	628	**702**
Russia	240	110	65	290	125	90	140	100	90	**60**
North America	16	16	18	17	23	25	26	17	20	**20**
Others	3	4	8	3	4	10	14	16	17	**19**
Total Supply	**636**	**530**	**501**	**767**	**604**	**615**	**724**	**720**	**755**	**801**
Demand by Application										
Autocatalyst: gross	418	483	509	793	566	599	660	758	830	**874**
recovery	(49)	(57)	(65)	(79)	(88)	(99)	(124)	(140)	(137)	**(159)**
Chemical	36	31	34	39	44	39	39	43	47	**48**
Electrical	9	6	6	7	6	6	6	8	9	**9**
Glass	43	34	35	42	41	37	26	46	60	**49**
Other	10	10	9	10	10	10	13	14	19	**23**
Total Demand	**467**	**507**	**528**	**812**	**579**	**592**	**620**	**729**	**828**	**844**
Movements in Stocks	**169**	**23**	**(27)**	**(45)**	**25**	**23**	**104**	**(9)**	**(73)**	**(43)**

NOTES TO TABLES

Supply figures are estimates of sales by the mines of primary pgm.

With the exception of the autocatalyst sector, **demand** estimates are net figures, demand in each sector being total purchases by consuming industries less any sales back to the market. Thus, annual totals represent the amount of primary metal that is acquired by consumers in a particular year. We continue to exclude the CIS from our demand estimates.

Movements in stocks in a given year reflect changes in stocks held by fabricators, dealers, banks and depositories but excluding stocks held by primary refiners and final consumers. A positive figure indicates an increase in stocks; a negative figure indicates a rundown in stocks.

Gross autocatalyst demand is purchases of pgm by the auto industry for manufacture of catalytic converters. **Autocatalyst recovery** is pgm recovered from scrapped catalytic converters and is allocated to the region in which the converter was scrapped.

Investment: small refers to the long-term holding of metal in the form of coins, and bars weighing 10 oz or less. **Investment: large** is in the form of 500 g and 1 kg bars in Japan and includes platinum held on account for subscribers to accumulation plans.

GLOSSARY

BEE	*Black Economic Empowerment*
CIS	*Commonwealth of Independent States*
CO	*Carbon monoxide*
CSF	*Catalysed Soot Filter*
DMFC	*Direct Methanol Fuel Cell*
DOC	*Diesel Oxidation Catalyst*
DPF	*Diesel Particulate Filter*
g	*Gram*
HC	*HydroCarbons*
HDD	*Heavy Duty Diesel*
HIC	*Hybrid Integrated Circuit*
kg	*Kilograms*
LCD	*Liquid Crystal Display*
Merensky	*A platiniferous ore body in South Africa*
MLCC	*Multi-Layer Ceramic Capacitor*
NOx	*Oxides of nitrogen*
NYMEX	*New York Mercantile Exchange*
OBD	*On-Board Diagnostics*
oz	*Ounces troy*
PDP	*Plasma Display Panels*
PEMFC	*Proton Exchange Membrane Fuel Cell*
PET	*PolyEthylene Terephthalate*
pgm	*Platinum Group Metal(s)*
Platreef	*A platiniferous ore body in South Africa*
PM	*Particulate Matter*
ppm	*Parts Per Million*
ppt	*Parts Per Thousand*
PTA	*Purified Terephthalic Acid*
SCR	*Selective Catalytic Reduction*
SUV	*Sports Utility Vehicle*
TOCOM	*Tokyo Commodity Exchange*
ton	*Short ton (2,000 pounds or 907 kg)*
tonne	*1,000 kg*
TWC	*Three-Way Catalyst*
UG2	*A platiniferous ore body in South Africa*
ULEV	*Ultra Low Emissions Vehicle*
VAM	*Vinyl Acetate Monomer*

NOTE ON PRICES

All prices are quoted per oz unless otherwise stated.

R	*South African Rand*
£	*UK Pound*
$	*US Dollar*
¥	*Japanese Yen*
€	*Euro*
RMB	*Chinese Renminbi*

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