



Johnson Matthey

# Platinum 2007



14th May 2007

Good morning, Ladies & Gentlemen. I would like to add my welcome to Platinum Week and the launch of Platinum 2007.



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# Platinum



I will start with a review of platinum supply & demand in 2006 before turning to the outlook for platinum and our price forecast for the next six months. I will then do the same for palladium before closing with some remarks on rhodium and ruthenium, which by measurement have been particularly volatile in the past year.

# Platinum: Key features

- Platinum market moves into surplus after 7 years of deficit
- Autocatalyst growth through diesel
- Jewellery recycling increases
- South African supply rises
- Supply disruptions in early 2007
- ETF launches

In 2006 we have seen the platinum market move into position of modest surplus after 7 consecutive years of deficit. The most important demand driver remains autocatalysts, with emissions control for diesel engines the key component.

In the jewellery sector, a key feature has been the increase in recycling, particularly in the two largest markets of China and Japan.

On the supply side, South African production increased as anticipated.

In recent months we have seen supply disruptions in both South Africa and Russia and the launch of Exchange Traded Funds. These have combined to keep the platinum price at historically high levels.

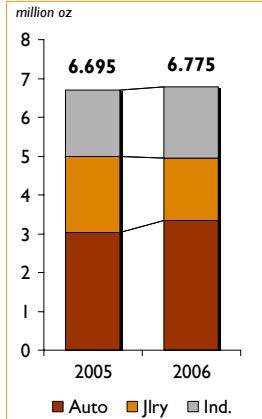
# Platinum Supply and Demand

'000 oz	2005	2006	%
<b>Demand</b>	<b>6,695</b>	<b>6,775</b>	<b>+1.2</b>
<b>Supply</b>	<b>6,640</b>	<b>6,785</b>	<b>+2.2</b>
<b>Movements in stocks</b>	<b>(55)</b>	<b>10</b>	

In summary, we have seen a 1.2% increase in platinum demand to 6.775 million ounces and slightly larger 2.2% increase in supply to 6.875 million ounces.

This resulted in a small surplus in 2006 of 10,000 ounces.

# Platinum Demand Rises 80,000 oz



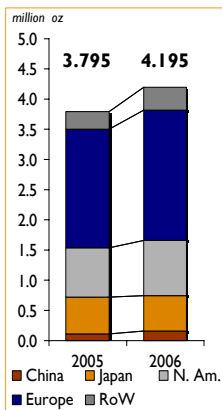
- Total demand edges 1.2% up to 6.78 million oz
- Autocatalyst demand climbs, driven by diesel growth
- Jewellery demand affected by high metal price
- Healthy growth in industrial sectors

Looking at the platinum demand in more detail, there has been an increase in autocatalyst demand – The brown bar in this chart – driven by growth in the diesel sector.

This has been balanced by a fall in demand for new material from the jewellery sector where the high platinum price has had an impact.

Demand from the industrial sector has been strong in all areas, with the increase in consumption for the manufacturing of hard disks the most notable feature in 2006.

# Platinum Demand: Autocatalyst



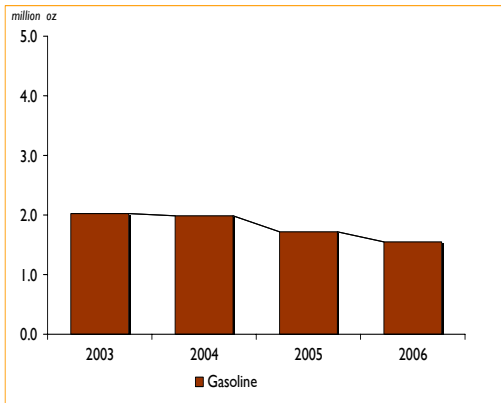
- Autocatalyst demand rises 400,000 oz to 4.20 million oz
- Japanese platinum use falls marginally
- Global heavy duty diesel demand now exceeds 200,000 oz
- European and North American platinum uptake rises due to light duty diesel vehicles

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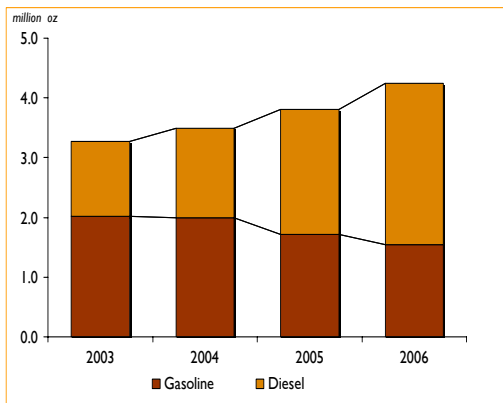
In the last year, autocatalyst demand has risen by just under 10% to 4.2 million ounces. Apart from Japan, where platinum use fell slightly, the trend in other regions was uniformly positive. Platinum demand for heavy duty diesel emission control now exceeds 200,000 ounces a year and is the subject of a special feature in 2007, but the biggest increase in demand came from light duty diesel catalysts in both Europe and North America.

# Platinum Demand: Autocatalyst



We can see from this chart that consumption of platinum for gasoline engines has declined in the last few years. This is due in part to substitution of platinum by palladium in three way gasoline catalysts, countered by an increase in vehicle production outside Europe.

# Platinum Demand: Autocatalyst



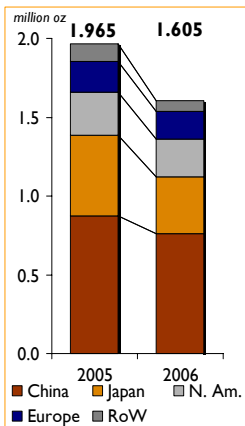
But we can also see that the decline in gasoline has been more than offset by the increase in diesel.

In Europe, diesel took a record 51% market share, with manufacturers fitting catalysed soot filters containing platinum as well as oxidation catalysts.

In North America, 2006 saw the fitment of platinum-containing catalysts to many medium sized diesel vehicles for the first time. These had previously fallen under legislation for commercial vehicles, but now require the higher loadings demanded for passenger vehicles.



# Platinum Demand: Jewellery



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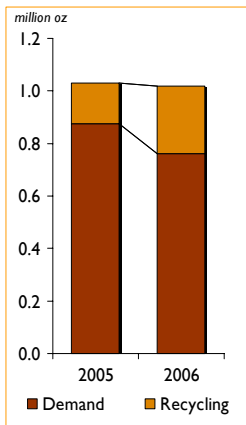
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- High prices negatively affect global jewellery demand
- Total global demand falls 360,000 oz to 1.61 million oz
- Demand for new metal falls in every region
- Retail sales resilient in key markets

Turning to jewellery, rising and volatile platinum prices had a negative impact on demand across all regions. Demand for new metal fell by 360,000 ounces to 1.61 million ounces.

We would however like to emphasise that our measurement of demand is of new metal consumption for manufacturing and not of retail sales. In the key Chinese market, for example, we believe sales in weight terms were only slightly lower in 2006 but substantially higher in value terms indicating that consumer demand is quite resilient even at these elevated platinum prices.

## Platinum: Chinese Jewellery Manufacture



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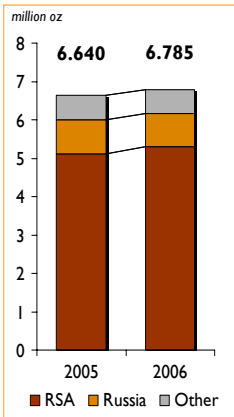
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- Net demand for new metal falls 115,000 oz to 760,000 oz
- Retail sales little changed in weight, up in value
- Recycling of unsold stock and pieces returned by consumers doubles in size

Looking in detail at the numbers for China, we can see although new metal demand fell by 115,000 ounces to 760,000 ounces, retail sales – the whole bar in this chart – were little changed at around 1.0 million ounces.

The balance of metal required for manufacturing was made up of the recycling of unsold stock and jewellery returned by consumers which is accepted practice in China. This increase in recycling was also evident in Japan in the past year, resulting in a significant fall in demand for new metal there.

# Platinum Supply



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- 2006 South African expansions raise sales by 175,000 oz
- Mixed performance from South African mining houses
- Production in Russia and elsewhere fairly flat
- Pgm basket price remains at historically high levels

Turning to the supply side, total platinum supply was up by just over 2% to 6.875 million ounces. Most of that increase came from South Africa, where platinum sales grew by 3% to just under 5.3 million ounces.

The South African producers had mixed fortunes in 2006:

Anglo Platinum reported substantial growth in refined platinum production.

The second largest producer Impala was down in the central lease area while

Lonmin were slightly up. The contribution from the smaller producers such as Aquarius and Arm Platinum is becoming significant.

Platinum production in Russia and elsewhere was fairly flat.

It is worth noting that with the PGM basket price at historically high levels, the investment environment for new capacity in South Africa is favourable and we expect to see some of the projects on the Eastern Bushveld which has previously been in doubt come to fruition in the longer term

# Platinum Outlook

- Further growth in demand for diesel autocatalysts
- Improved first four months of SGE sales
- First half supply disruptions resolved
- Second half supplies to recover strongly
- Market likely to move into surplus

I would now like to turn to our outlook for the coming year.

We expect to see platinum demand in 2007 continuing its ten year record of growth with diesel catalysts again providing the main impetus. The share of the diesels in the car market is likely to increase, with a growing number of vehicles fitted with catalysed soot filters.

We also expect growth in the heavy duty diesel market, with 2007 being the first full year of Euro IV legislation.

Despite the high platinum price and growth in recycling, there are positive signs on the Chinese jewellery industry. Platinum sales on the Shanghai Exchange were stronger in the first four months than in the same period last year, reflecting the resilience of the market and the low level of industry stock.

The supply side has had a difficult start to 2007, with well publicized smelter problems in South Africa and licence issues in Russia. With both of these difficulties resolved, supplies from these sources should increase in the second half provided that no further supply disruptions.

For the year as a whole, we expect supply to grow faster than demand levelling the market in surplus. However, the uneven pattern of supply will see a first half deficit followed.

# Forecast Platinum Price for the Next 6 Months



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Looking at the platinum price in 2006 and in the year to date, we have seen a tight market with broadly balanced fundamentals. The platinum price has tracked other commodities such as gold and oil, also responding to a weak dollar.

## Forecast Platinum Price for the Next 6 Months



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In the next six months we might anticipate that the growing surplus will ease the pressure of the price. However, if the recently announced ETF's reach their targets we can see that surplus being absorbed and the upward trend in platinum price continuing, reaching the \$1400 ounce level.

If ETF's prove to be more successful than in expected or more supply disruptions occur, there is a potential for platinum to spike over the \$1400 ounce level.

However, if investment sentiment was to falter and a widespread commodity sell-off was to take hold, we could see the price falling as low as \$1200 ounce before revitalized consumer and speculative demand would provide support.



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# Palladium



I would like to now turn to palladium.

## Palladium: Key features

- Palladium supply exceeded demand by more than 1 million oz in 2006
- Autocatalyst substitution for platinum
- Jewellery demand falls
- Global supplies lower than in 2005
- Fund and investor interest

In 2006 we have seen the palladium market continue in a state of substantial fundamental surplus.

In the autocatalyst sector we have seen a continuing process of substitution of platinum by palladium. But in the jewellery sector demand has fallen following substantial inventory and pipeline building in 2004 and 2005.

Global supplies were lower than in 2005 due to a reduction in Russian sales.

Investment interest in palladium remained at a high level, with a continuing transfer of liquidity if market stocks into the hands of funds and other investors.

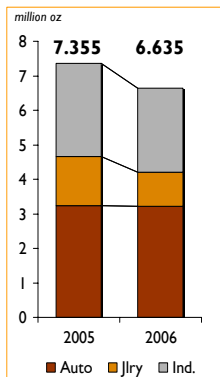


## Palladium Supply and Demand

'000 oz	2005	2006	%
<b>Demand</b>	7,355	6,635	-9.8
<b>Supply</b>	8,405	8,060	-4.1
<b>Movements in stocks</b>	1,050	1,425	

Palladium demand fell by just under 10% to 6.635 million ounces, whereas global supply fell by just over 4% to 8.06 million ounces. This resulted in an increased surplus in 2006 of 1.425 million ounces.

## Palladium Demand Shrinks



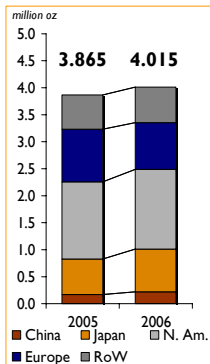
- Total demand contracts by 10% to 6.64 million oz
- Increased recycling balances growth in autocatalyst purchases
- Sharp fall in palladium jewellery demand from 1.43 million oz to 995,000 oz
- Electronics demand rises to over 1 million oz.

Looking at palladium demand in a little more detail, net demand from the autocatalyst sector was broadly unchanged, with increased recycling balancing an increase in purchasing.

Jewellery demand fell sharply from 1.43 million ounces to just under 1.0 million ounces.

In the industrial sector, demand for electronics rose by just under 10% to over 1.0 million ounces, but is still only half what it was at its peak in the late 1990's.

# Palladium Demand: Autocatalyst



- Strong production growth in Asia: Japan and China contribute 190,000 oz extra demand
- Palladium continues to replace platinum in gasoline catalysts everywhere

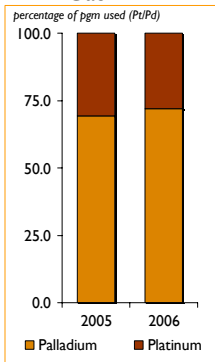
Turning to the detail for autocatalysts, this chart shows gross demand before the deduction for recycled metal rising by just under 4% to 4.05 million ounces.

A key regional driver in 2006 can be seen at the bottom of the chart, with increased production in Japan and in particular China contributing an additional 190,000 ounces of demand.

Palladium continued to substitute for platinum in gasoline catalysts everywhere.

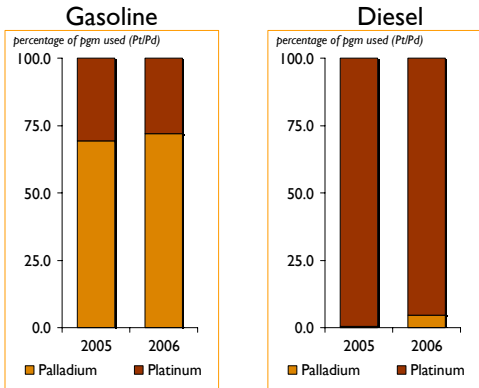
# Pgm choice in Autocatalysts

## Gasoline



You can see from this chart that the proportion of palladium in gasoline catalyst has risen to around three quarters and is likely to continue rising.

# Pgm choice in Autocatalysts



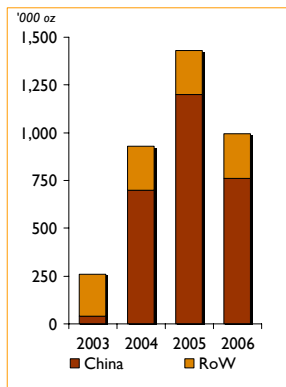
This contrasts sharply with diesel, where palladium use has become significant only in the last year.

Palladium is currently being used to replace between a fifth and a third of the platinum in newer diesel catalyst formulations.

The palladium addition maintains activity while enhancing thermal stability and reducing overall cost.

The proportion of palladium that can be used is limited by durability issues such as tolerance to residual sulphur in diesel fuels.

## Palladium Demand: Jewellery



- Chinese demand falls by 440,000 oz to 760,000 oz
- Pipeline filling of 2004-2005 completed
- Large amounts of Pd950 stock returned for recycling
- Retail sales patchy

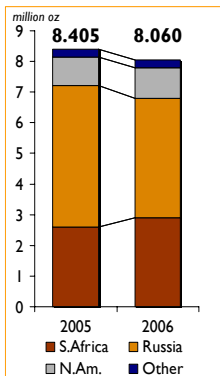
In the jewellery market we have seen a significant reduction in demand from the Chinese jewellery market, down by 440,000 ounces to 760,000 ounces. We believe that a significant proportion of the palladium reported as imported into Hong Kong in early 2006 was sold as a medium term investment rather than for jewellery manufacture.

2004 and 2005 saw a significant build up of stocks of raw materials and finished jewellery held by manufacturers, wholesalers and retailers. Much of this pipeline was in Pd950 alloy, which has been returned for conversion into now favoured Pd 990 alloy.

This recycling coupled with the re-processing of other unsold stock, saw a reduction in new metal purchased in 2006.

Consumer demand for palladium remains mixed, with no obvious breakthrough in Beijing or Shanghai, but good sales being made in smaller cities. With palladium jewellery now being actively promoted in China, it should at least secure the market niche it has established.

# Palladium Supply

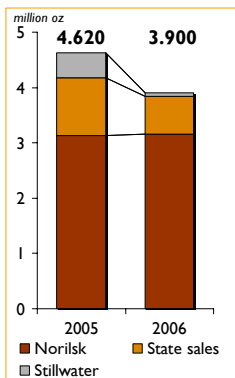


- Supply drops 345,000 oz to 8.06 million oz
- Russian sales fall by 720,000 oz
- South African expansions partly counterbalance this, with sales rising 300,000 oz

On the supply side, total supply fell by 345,000 ounces in 2006 to just over 8 million ounces. Russian sales fell by 720,000 ounces, mostly because a substantial quantity of state stock exported late in the year is unlikely to have been sold to consumers and is this excluded from our supply figure.

An increase in production from South Africa partly counter-balanced the fall in Russian supply, with sales rising by 300,000 ounces.

## Palladium Supply: Russia



- Norilsk production 25,000 oz up on 2005
- Final sales of Stillwater/Norilsk metal
- 2006 Russian state shipments too late in the year to be supplied to consumers

You can see the impact of the delayed state stock sales in this chart. The first quarter of 2006 also saw the final sale of palladium transferred to Stillwater as part of its acquisition by Norilsk Nickel, which we have always counted as Russian supply. That's the dwindling grey sector of the bar.

Underlying production at Norilsk Nickel was up by 1% to 3.16 million ounces. This was somewhat higher than the company's earlier forecasts and was attributed to improvements in recovery and release from processing pipeline.



# Palladium Outlook

- Autocatalyst palladium demand to continue expanding in 2007
- Some growth in the palladium jewellery market possible
- Russian Dec. 2006 shipments likely to boost 2007 supplies
- Another year of substantial surplus expected

Turning to the outlook for palladium this year, palladium demand for autocatalysts will grow again in 2007. Continued substitution of platinum in gasoline catalysts, use in diesel catalysts and rising car production volumes in Asia will more than outweigh the thrifting and increased metal volumes released from recycling.

A small recovery in the jewellery demand is possible. Chinese pipeline stocks have reduced and there are early signs of palladium finding a niche in US and European jewellery markets.

Russian sales are likely to increase in 2007, with unsold metal from the December 2006 shipment adding to growing supplies from South Africa. We therefore anticipate another year of substantial surplus with the price driven entirely by investor sentiment.

## Forecast Palladium Price for the Next 6 Months

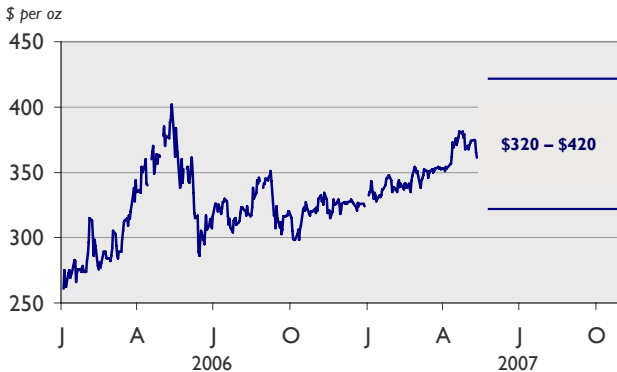


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Turning to our six month forecast, the palladium price was largely untroubled by weak supply/demand fundamentals in 2006, largely following the trends in platinum and gold. The early part of 2007 has seen no departure from that trend.

# Forecast Palladium Price for the Next 6 Months



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Providing funds remain positive about palladium and continue to absorb the expected surplus, we see palladium trading in the \$320 - \$420 ounces for the next six months.



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## Other pgm



In a departure from our usual practice, I would like to make a few comments about the rhodium and ruthenium markets, which have been unusually volatile in the past year.

# Rhodium



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- Market in deficit in 2006
- Supply rose to 824,000 oz with South African growth and additional Russian stock sales
- Demand rises to 837,000 oz with autocat the main driver

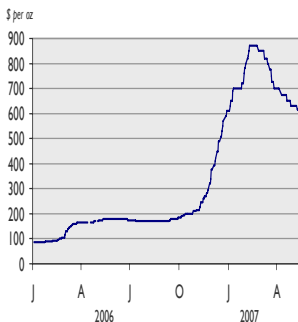
The rhodium market remained in deficit in 2006. Supply increased by 9% to 824,000 ounces with growth in South African production and additional Russian stock.

Autocatalyst consumption remains the key driver, with an increase in Asian demand outweighing decreases in Europe and North America.

Looking forward we see trends of increasing supply from South Africa and aggressive thrifting of rhodium in autocatalysts counterbalanced by tightening emissions legislation and further regional growth in car manufacturing.

The rhodium market is likely to remain liquid and volatile in the year to come.

# Ruthenium



- Demand rose 45% to 1.29 million oz in 2006
- Increase in PMR hard disk market share
- Build-up of pipeline inventory
- Recycling yet to catch up

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In ruthenium, demand has risen dramatically in 2007 due to its use in new perpendicular magnetic record technology – or PMR for hard disks. The introduction of this technology saw a rapid build up of inventory supply pipeline to make ruthenium sputtering targets. The recycling of spent targets failed to keep pace.

With a measure of speculator activity added to the mix, it was not too surprising that the price rose so far, so fast.

Since February we have seen a cooling in the market as recycling has increased and demand has returned to a more realistic level.

However the hard disk manufacturers continue to predict significant growth in demand for PMR, so a return to the price levels of early 2006 looks unlikely at the moment. This particular area is covered in more detail in the second special feature in Platinum 2007.



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I would like to thank you for your attention and hand you back to the panel for your questions.