



Johnson Matthey

Platinum 2005

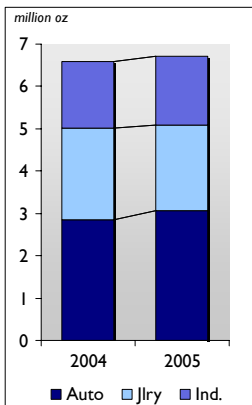
Interim Review



15th November 2005

Good morning and welcome to the presentation of JM's Platinum 2005 Interim Review. I will firstly cover platinum and our forecast for the next six months. In the second half of the presentation I will cover palladium in the same way.

Platinum Demand To Reach New High

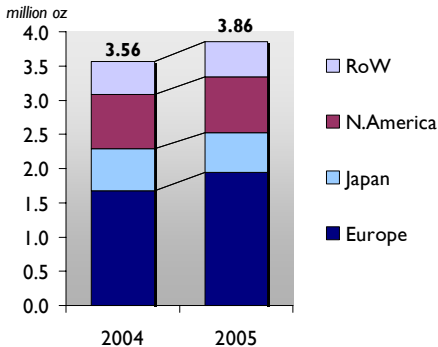


- Strong growth from the autocatalyst sector
- Jewellery purchases set to fall for 3rd year in a row
- Glass and electrical use driving increased industrial demand
- Total demand to rise 2% to 6.71 million oz

Looking firstly at the highlights for Platinum we see that platinum demand will reach a new high in 2005, with strong growth from the Autocatalyst sector (the dark blue bar in the chart shown). Jewellery purchases will fall for the 3rd year in a row – whereas, increases in demand from the glass and electrical sectors will drive up industrial demand. Total demand will rise 2% to 6.71m oz.

Platinum Demand: Autocatalyst

Up 8% to 3.86 million oz



In the Autocatalyst Sector, demand is up 8% to 3.86m oz with, as you can see from the chart, Europe leading the way once again. We see only small changes in Japan and N.America, but good growth in China.

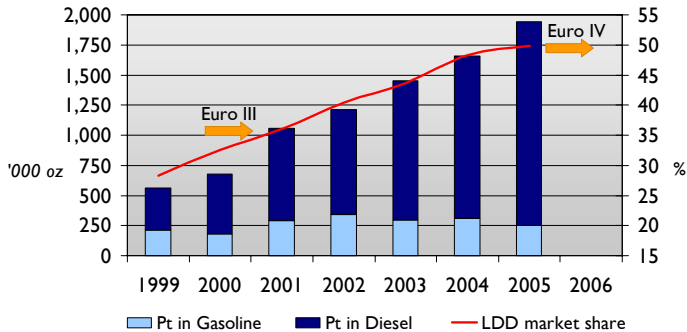
Platinum Demand: Autocatalyst

Europe: up 16% to 1.94 million oz



Platinum demand in Europe is up 16% to 1.94 m oz – driven by diesel. Diesel market share in Europe is up to almost 50% and has been given further momentum by rising fuel prices.

European Demand for Platinum in Autocatalysts 1999-2005



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This graph shows the clear trend over the last seven years, with platinum for gasoline engines increasingly less important. The introduction of Euro IV legislation has seen increased platinum loadings in light duty diesel catalyts and diesel particulate filters have become popular optional extras, with some manufacturers such as Mercedes fitting them as standards across the range.

Platinum Demand: Autocatalysts

Europe: up 16% to 1.94 million oz

North America: up 2.5% to 820,000 oz

Japan: down 4% to 580,000 oz

China + RoW: up 9% to 520,000 oz

In other markets:

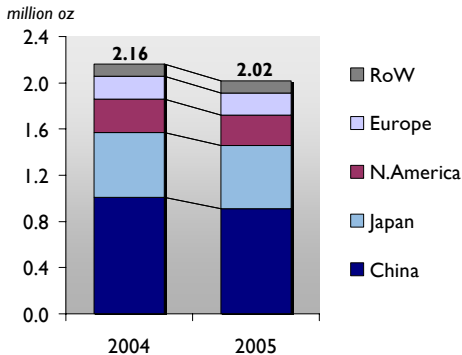
North America demand is up 2.5% due in part to the big 3 US manufacturers losing market share to imports, which tend to have higher average platinum loading in their catalysts.

In Japan, platinum demand for MDD is rising, but overall demand is down 4% due to inventory adjustments.

China and ROW is up 9% due to higher Light Vehicle production and tightening emissions limits across Asia.

Platinum Demand: Jewellery

Down 6% to 2.02 million oz



In jewellery, we see demand falling in 2005 to just over 2.0m oz. The reduction of demand in China has had the most significant impact, with North America also lower and a very slight fall in Japan.

Jewellery Demand: China

Down 10% to 910,000 oz

- Increased metal financing costs; higher retail prices
 - Manufacturers only producing to order; destocking by retailers continuing
 - Palladium offers a lower cost, higher margin alternative
 - Consumers exchanging old jewellery for new
- Excess inventories of diamond-set jewellery
- But good buying on price dips, even >\$900

Looking at China specifically, we see demand down 10% to 910K oz.

The high platinum prices have seen retail prices increase – the Shanghai retail price (very much a benchmark) is up 23% since November 2003. The high platinum price has also led to increased metal finance costs which in turn has led to manufacturers making to order only and palladium offers in some cases a lower cost, higher margin alternative to platinum.

Consumers have been exchanging old jewellery for new which reduces new metal demand and we have also seen excess inventories of diamond set platinum carried over to 2005.

However, in spite of all these platinum demand has been reasonably resilient and we have seen good sales of platinum on the Shanghai Gold Exchange whenever the price dips even when price is above \$900.

Jewellery Demand: Elsewhere

High Pt price affects demand

Japan: down 2% to 550,000 oz

North America: down 10% to 260,000 oz

Europe: unchanged at 195,000 oz

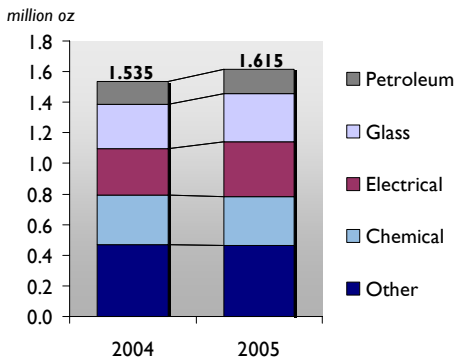
In Japan we have seen demand ease slightly - down 2% - the high price increases competition from white gold and recycling volumes are still high.

In the USA, although demand for platinum at the top end of the market has been firm, the fashion sector where meeting price points is all important has suffered. Total demand is down 10%.

Europe is unchanged at 195K oz – with demand in the UK levelling off after several years of good growth.

Platinum Demand: Industrial

Up 5% to 1.615 million oz



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Industrial demand for platinum is up 5% to 1.615m oz.

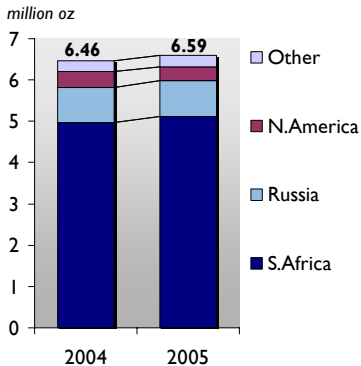
Most of the growth has come from the electrical sector where consumption of platinum in hard disks has increased. The number of hard disk has risen significantly with the increasing sales of devices such as the iPod and the DVD recorder.

Consumption in glass manufacturing has also increased, particularly for flat panel display glass in Asia – Another twenty plus glass lines have been commissioned this year.

Demand from the petroleum sector has risen 7% to 160K ozs – refining capacity is heavily utilised which increases demand for top up catalysts, but at the same time can lead to postponement of full change outs.

Platinum Supply

Up 2% to 6.59 million oz



Turning now to the supply side, we see platinum supply up 2% in 2005 to 6.59m oz. Most of the growth has come once more from South Africa.

Platinum Supply: South Africa

Up 3% to 5.12 million oz

- Smelter problems hold back growth at Anglo Platinum
- Progress on Eastern Bushveld slow
- Geology more difficult on Western Bushveld

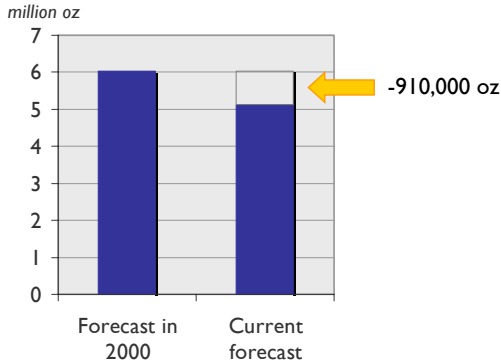
In South Africa supply is up 3% to 5.12m oz.

Anglo Platinum production is expected to be 2.45m oz with sales of 2.51m oz – The Polokwanw smelter coming back online next month.


Progress on the E.Bushveld has been slow with problems with mechanisation, infrastructure and inexperienced labour.

On the Western Bushveld Geology is becoming more challenging in some areas as mines access deeper Merensky reserves.

South African Platinum Supplies in 2005 – Changing Expectations



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It's worth remembering numerous projects were announced in 2000, South African production was projected to reach 6m oz in 2005.

A number of problems have caused the postponement and reconfiguring of many projects including:

- The strength of the Rand and the reduction of the PGM basket price due mainly to the slump in palladium price and the fall in rhodium prices – particularly in 2002 and 2003.
- Rising local costs have had an influence and there has been difficulties developing mines in the E.Bushveld which I have just mentioned in my comments on 2005.
- The W.Bushveld should not be regarded as a steady state as there has been a marked depletion in shallower Merensky reserves. Production in 2005 is now expected to be 910K ozs less than appeared likely in 2000.

Platinum Supply: Elsewhere

net change -20,000 oz

Russia: up 1% to 860,000 oz

North America: down 12% to 340,000 oz

Zimbabwe: up 5% to 155,000 oz

Elsewhere, supply from Russia is up 1% to 860K oz with sales largely reflecting mine production.

There has been a moderate increase at Norilsk Nickel to 730K oz, whereas there is a slow decline from alluvial operations in the far east of Russia.

Supply from North America will be down 12% to 340K oz. INCO's output is down in 2005 due to a scheduled smelter refurbishment.

In Zimbabwe a currency devaluation has improved the economic situation but the outlook is still uncertain due to other difficulties in that country, output was nonetheless up 5% to 155K oz.

Platinum Supply and Demand

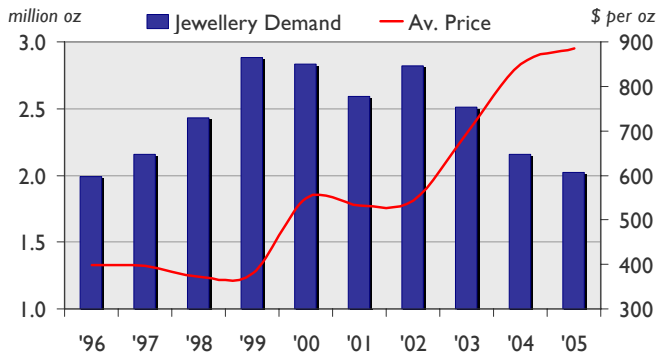
'000 oz	2004	2005	%
Demand	6,590	6,710	+2
Supply	6,460	6,590	+2
Movements in stocks	(130)	(120)	

Overall then, we see the platinum market with a modest deficit in 2005 of 120K oz.


Clearly if South African production had met expectations, we would have been very close to balance.

Platinum – Demand Outlook

Jewellery: Price Dependent



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Turning to the outlook for platinum demand, we can see from this chart that there is a clear price dependency in jewellery demand.

We have seen Japanese demand fall steadily from 2000 onwards, and Chinese demand seems to have peaked in 2002.

This trend suggests further decline if the platinum price continues to rise. Price stability is at least as important as the absolute price. We still see substantial Chinese demand even at prices in excess of \$900.

Platinum – Demand Outlook

Autocatalyst: Diesel Driven

- Euro IV plus DPF in Europe
- HDD regulations in North America
- Light vehicle production & emissions limits in Asia

In the Autocatalyst market, platinum demand will continue to be diesel driven.

The proportion of Euro IV compliant vehicles will increase with increasing demand for catalysed diesel particulate filters, starting with large cars. Diesel market share is expected to grow further.

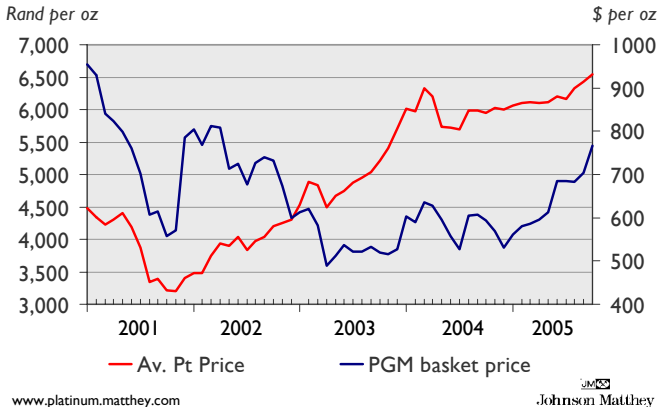
New HDD emission regulations will come into force in the US in 2007. Full scale production of compliant vehicles will begin in 2006 – all of which will be fitted with a DOC and/or a DPF.

Light vehicle production will continue to rise in Asia with increased production of diesel cards in the region for export to Europe.

On balance between the two major demand drivers we see platinum demand continuing to rise in 2006, perhaps at a greater rate than in 2005.

Platinum – Supply Outlook

South Africa: Stronger Growth Expected



The near-term outlook for supply is positive, with Anglo Platinum output expected to rise with release of metal from their pipeline.

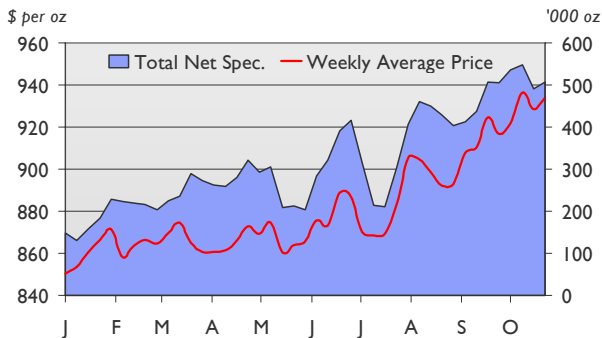
In the medium term, production will grow in both W and E Bushveld as expansion programmes are completed and new mines commissioned.

It's worth noting that the rand basket price is now much more favourable than it has been for several years, with increasing Rh, Pt and now palladium prices and a slightly weaker rand all contributing.

In summary, supplies of platinum are expected to grow in 2006, at a similar rate to demand. We therefore expect the market to remain in deficit in the coming year.

NYMEX Positions vs Platinum Price

Jan–Oct 2005



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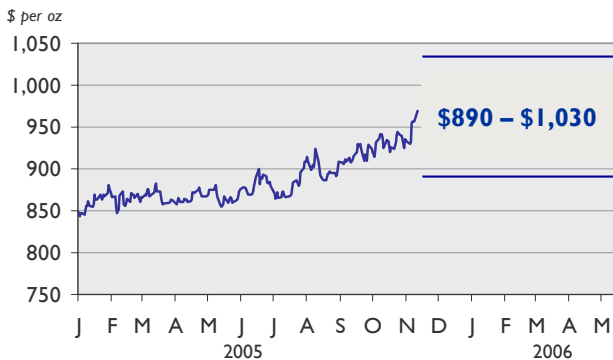

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Although the fundamentals have been and will be supportive to the price, we should not overlook that prices have been driven to current levels by fund investment.


Our charts show NYMEX position which are a good indicator of the trend, but we should not overlook the significant TOCOM positions. Total long positions are estimated to be in excess of 2.0m oz.

Investors are increasingly diversifying into commodities, spreading their risk, chasing higher returns, hedging against inflation and dollar depreciation. Their enthusiasm for platinum shows no sign of waning in the short term, as price movements in the last few days have shown.

Forecast Platinum Price For The Next 6 Months



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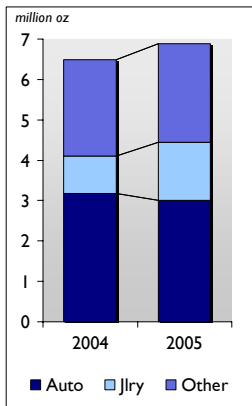

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Our price forecast for the next 6 months is \$890-\$1030/oz.

Further fund buying could drive the price through \$1000/oz, but we also see good support at the bottom end of our range from physical demand in the event of a fund sell off.

We do not expect to see platinum fall below \$890/oz unless jewellery demand contracts more significantly than current trends suggest.

Palladium Demand Improving



- Jewellery to become the second largest application
- Autocatalyst purchases little changed, scrap recovery rising
- Industrial & investment demand both positive
- Total demand to grow 6% to 6.89 million oz

Turning to palladium:

In 2005 we see jewellery becoming the second largest application of palladium, overtaking electronics.

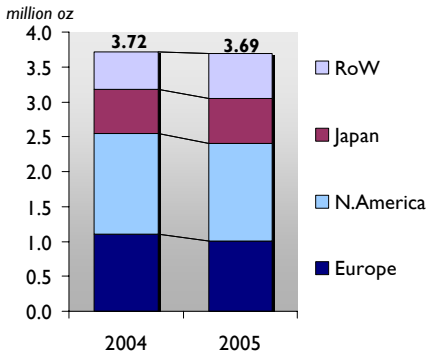
Autocatalyst purchases are little changed with rising recovery resulting in a new reduction in demand.

Industrial and investment demand remain positive.

With total demand expected to rise 6% to 6.89m oz.

Palladium Demand: Autocatalyst

Marginally lower at 3.69 million oz



In the Autocatalyst sector, demand will be marginally lower at 3.69m oz.

Purchases by automakers in both the largest regions- Europe and North America, will fall in 2005 but will rise elsewhere.

Autocatalyst Demand for Palladium

North America: down 3% to 1.395 million oz

- Vehicle sales weakening; still some thrifting

Europe: down 9% to 1.005 million oz

- Demand to drop for 5th year as diesels take further market share

Japan: up almost 2% to 645,000 oz

- Greater output of light vehicles with lower emissions

China + RoW: up 21% to 645,000 oz

- Rising vehicle production & tighter emissions limits

Looking at the regions:

North American demand is down 3% to 1.395m oz – vehicle sales are weakening and thrifting programmes continue. In September and October sales of SUV's and pick ups were hardest hit by the downturn.

In Europe demand is down 9% to just over 1.0m oz. The fifth year in succession that this has happened as diesels have increased market share.

Japanese demand has edged up 2% to 645,000 oz with Light vehicle production increasing.

China and the ROW has caught up with Japan with a 21% increase in demand with rising vehicle production and tighter emission limits.

Palladium Demand: Jewellery

Up 55% to 1.43 million oz



Chinese demand to
soar to 1.2 million oz,
up from 700,000 oz
last year

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The biggest change in the palladium demand has come in the jewellery sector up a remarkable 55% to 1.43m oz. Of this 1.2m ozs comes from China, an increase of 700,000 oz.

The photograph was taken in the city of Leshan in Sichuan Province. Although it isn't typical of Chinese jewellery shops it is a good illustration of the way in which palladium jewellery has penetrated so called tertiary cities in China. As you can see palladium jewellery is being sold for 100 rmb/gm – less than half the price of platinum.

Palladium Demand: Jewellery

Basis for Chinese Growth

- Low metal funding costs plus relatively low price volatility
- Attractive profit margins for retailers
- Consumers like:
 - Purity (Pd 990)
 - Affordability
 - Whiteness
 - Association with platinum
 - ‘Potential for price to appreciate’

The growth of palladium jewellery in China is based on a number of factors:

- It is firstly attractive to manufacturers and retailers – the metal price has been less volatile, funding costs lower for manufacturers and profit margins higher for the retailers than for platinum jewellery.
- Consumers appreciate it's purity, its similar appearance to platinum and the obvious association with the brand values developed for platinum.
- For less affluent consumers, it is clearly more affordable than platinum.
- Some consumers also consider the potential for the value of their jewellery to appreciate – some retailers are keen to point out the price of palladium was 4 times its current level four years ago.
- Above all, the rapid growth of palladium jewellery demand is testament to the power of the Chinese consumer.

Palladium Demand: Other

Up 3% to 2.45 million oz

- Electronics demand up 5% to 970,000 oz
- Dental demand marginally higher at 860,000 oz
- Moderate growth in chemicals sector
- Strong interest in physical investment products in North America

In other sectors demand is up 3% to 2.45m oz.

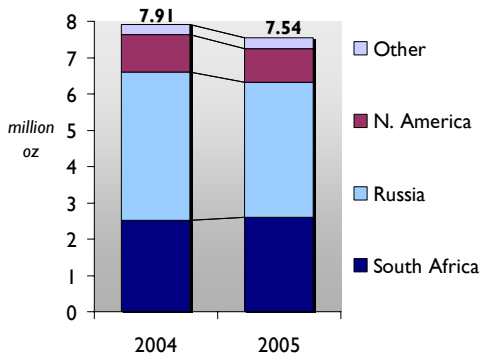
In electronics demand is up 5% to 970K oz with increased use in plating and resistors. Demand from the MLCC sector has continued to fall due to substitution, thrifting and miniaturisation.

Dental demand has edged up due to a low palladium price compared to gold. In chemicals increasing capacity for PTA in Asia has pushed total demand to 32K oz.

Total sales of small bars and coins estimated to be 220K oz, with small bars selling well in the US market.

Palladium Supply

Down 5% to 7.54 million oz



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On the supply side South African supply is up, but we have seen less metal from Russian state stocks this year.

We have therefore seen an overall reduction of 5% in Palladium supply to 7.54m oz.

Palladium Supply: Russia

Down 9% to 3.73 million oz

- Norilsk releases data: production forecast at 3.08 million oz
- Stillwater on course to sell 440,000 oz of Norilsk stock
- Substantial sales from State inventories in Q4 2004; some carried over to Q1 2005

Looking in detail firstly at Russia, supply is down 9% to 3.73m oz.

Norilsk Nickel has finally been allowed to release production data and has forecast 3.08m oz for the year.

Stillwater Mining is on course to sell 444K oz of Norilsk stock in 2005, which we count as Russian production.

We saw substantial sales from state inventories in the fourth quarter of 2004 – some which was carried into to first quarter of 2005.

It is worth noting that further information on Norilsk Nickel geological reserves is to be released soon, but historically output data and the level of state stocks and sales from those stocks will remain secret for the foreseeable future.

Palladium Supply Elsewhere

South Africa: up 4% to 2.6 million oz

- Production increasing in line with expanding platinum output

North America: down 11% to 925,000 oz

- Production difficulties & low grades at NAPd
- Lower output at Inco

Looking at palladium elsewhere:

South African production increased in line with platinum output and is up 4% to 2.6m oz.

In North America production is down 11% to 925K oz with lower output from INCO and production difficulties affecting North American palladium.

Palladium Supply and Demand

'000 oz	2004	2005	%
Demand	6,480	6,890	+6
Supply	7,910	7,540	-5
Movements in stocks	1,430	650	

Overall then, we see demand increasing by 6% to 6.89m oz and supply decreasing to 7.54m oz.

The supply surplus has thus more than halved to 650K oz, but remains significant.

Palladium – Demand Outlook

Autocatalyst

- Thrifting to have less impact
- Switching from Pt to Pd in gasoline vehicle catalysts to accelerate
- Rising light vehicle production and tightening emissions limits in Asia

Turning to the outlook for 2006:

We expect thrifting in autocatalysts to have less impact as formulations are largely optimised.

The switching of platinum to palladium in gasoline vehicles is expected to accelerate and there will be further increases in Light Vehicle production and tightening emission limits in Asia.

All of which add up to increasing palladium demand from this sector in the coming year.

Palladium – Demand Outlook

Jewellery

- Further growth potential in China:
 - No co-ordinated marketing of Pd jewellery
 - Not available via Shanghai Gold Exchange
 - Not popular in Shanghai and Beijing
- An alternative to white gold in other markets?

In jewellery there is further growth potential in China.

To date there has been no co-ordinated marketing of palladium jewellery although as an observation you would have to say demand has risen strongly without it.

Palladium is not currently available from the Shanghai Gold Exchange. Should it become available through this channel and be VAT free as with platinum it is likely to be beneficial to sales.

And lastly palladium is still not popular in Beijing or Shanghai which remains the most important cities in terms of jewellery consumption. In other markets palladium has had little impact so far, but may well become an alternative to white gold.

In summary the outlook is for further growth in demand from this sector, but at a less dramatic rate than seen this year as expansion of the jewellery trade pipeline in China is likely to slow.

Palladium – Supply Outlook

- Stillwater inventory sales to end in Q1 2006
- Growth expected in South African & North American mine production
- Further sales from Russian stocks?

On the supply side we see sales from Russian stocks as a key factor once more.

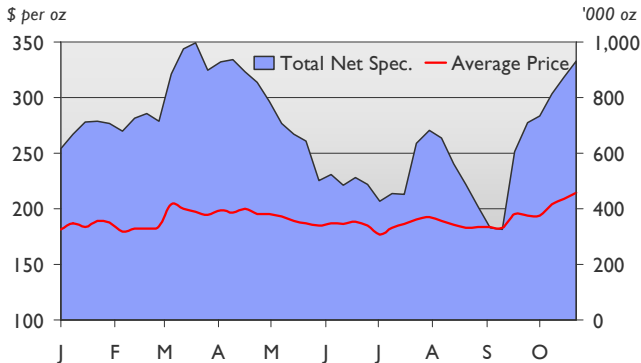
Sales from Stillwater inventory will end in the first quarter in 2006 – but growth is expected from South African and North America.

If there are no sales from Russian State stocks, palladium supply will almost certainly fall in 2006.


With demand expected to rise, we see the palladium market still closer to balance in 2006.

NYMEX Positions vs Palladium Price

Jan–Oct 2005



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The funds have remained keen on palladium in the past year with combined long positions on NYMEX & TOCOM exceeding 1m oz for long periods, with OTC investment doubling that.

With the fundamentals looking more positive it's hard to see their enthusiasm waning.

Forecast Palladium Price For The Next 6 Months



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Our price forecast for the next six months is thus \$190 - \$270/oz. The fundamentals have improved but palladium remains vulnerable to fund long liquidation.



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That concludes the presentation.