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Platinum 2008 Interim Review



18th November 2008

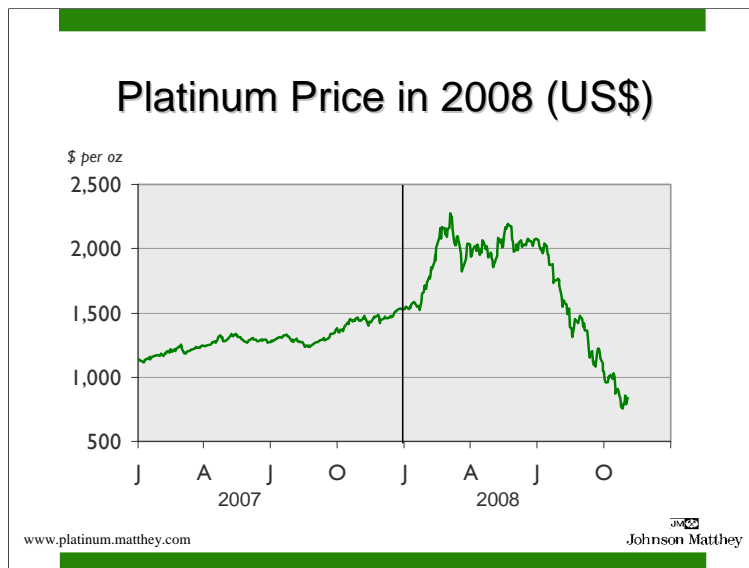
- Good morning, and welcome to the launch of Johnson Matthey's Platinum 2008 Interim Review
- My name is Mark Bedford and I am Director of JM's Precious Metals Marketing business that is responsible for producing this report
- I am joined on the platform by John Cullen, our General Manager responsible for sales
- We are launching the Interim Review in New York, Johannesburg, Moscow, Tokyo, Shanghai and here in London
- As usual, I will start with a presentation of the main points contained in the Review, after which we'd be pleased to take your questions
- Copies of the Review will be available as you leave.


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Platinum



- I will start with a review of platinum supply and demand for 2008 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 about rhodium.




- It is worth starting by pointing out the unprecedented price volatility we have seen in the platinum market this year.
- Platinum started the year at \$1530 and recorded a series of record prices even before the South African power problems hit. These forced the price sharply higher to record of \$2276 in March.
- It remained strong through the second quarter before collapsing under pressure from hedge fund selling caused by major troubles in the financial markets and the worsening outlook for demand. Platinum plummeted to end September near \$1000 and has since fallen below that level.
- It's worth bearing in mind when considering the figures we are about to present the huge change that has occurred in economic activity and outlook between the 1st and 2nd halves of this year and in particular the contrast between the first part of the year and the unprecedented events we have seen in the last two months.
- For this reason we have included an update slide in the presentation to cover events in the weeks since our Review went to press

Platinum: Key features

- Platinum market set to be in deficit by 240,000 oz in 2008
- South African supplies fall to lowest since 2003
- Autocatalyst demand grows due to European diesel market
- Jewellery demand driven lower by high prices and increased recycling
- Industrial demand forecast to climb

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- **Platinum is forecast to remain in deficit by 240,000 oz in 2008, compared to a deficit of 120,000 oz in 2007.**
- **Global supplies will fall largely due to a wide range of issues in South Africa from skills shortages to electricity problems and bad weather.**
- **Moving to the demand side, the autocatalyst sector is set to grow once more, with increased use of platinum in the European diesel sector more than offsetting the weakness seen in the North American market, particularly in the second half of the year.**
- **Demand is expected to fall, however, in the jewellery industry, where high prices in the first half of the year have hit consumer sales and increased recycling of old jewellery in Asia.**
- **Industrial demand should rise due to greater purchases by the chemical, glass and petroleum refining sectors.**

Platinum Supply and Demand

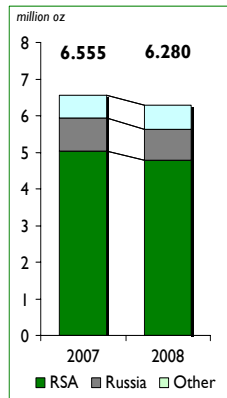
'000 oz	2007	2008	%
Supply	6,555	6,280	(4.2)
Demand	6,675	6,520	(2.3)
Movements in stocks	(120)	(240)	

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- In summary we expect to see...
- ... a 4.2% reduction in global platinum supplies to 6.28m ozs.
- and a 2.3% drop in platinum demand to 6.52m ozs
- This is expected to result in an increased deficit of 240,000 ozs compared to 2007.

Platinum Supply Falls by 4.2%



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- South African supplies to drop to a forecast 4.78 million oz
- Russian production expected to fall to 855,000 oz
- ROW production forecast to rise to 520,000 oz

•Looking at platinum supply in more detail ...

•Global platinum supplies will drop in 2008, falling to 6.28 million ounces, 275,000 oz below the total for 2007.

•The fall in South African supplies is the steepest and these will drop to 4.78 million ounces, of which more later


•Russian platinum supplies are set to fall, with output likely to drop both at Norilsk Nickel, reflecting weather problems and a smelter rebuild in the first half of the year and at the alluvial producers

•Sales of metal from Zimbabwean production should also grow, demonstrating the better than expected performance of mines in that country.

South African Platinum Supply

- Supplies will fall again, from 5.03 million oz in 2007 to 4.78 million oz in 2008
- Major causes include:
 - Amandelbult flooding
 - Safety stoppages
 - Smelter outages
 - Labour disruption
 - Power supply issues
 - Finding and retaining skilled staff

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•2008 has been another very difficult year for the South African mining industry, with a wide range of problems affecting almost every company

•To give some examples, at Anglo Platinum, 67,000 oz of platinum production was lost due to the flooding of the Amandelbult mine and a further 36,000 oz was lost in due to refurbishment of the Turffontein shaft at Rustenburg. The impact of the closure of the Polokwane smelter in early November came too late to be included in this review.

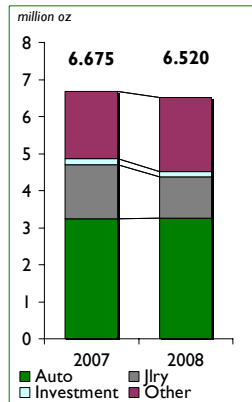
•Impala identified the loss 12,000 oz of platinum production due to stoppages to allow for the Presidential Safety Audit, but there were safety-related stoppages at numerous other mines

•Both Lonmin and Anglo Platinum suffered significant loss of smelter capacity earlier in the year and we saw a number of small, short-lived strikes which hit production this year.

•The issue of power supply, although having a dramatic impact on the price of platinum, eventually had a relatively limited impact on output with under 60,000ozs of production lost as a direct consequence. It remains a significant issue, of course, in terms of expansion of platinum production in the years to come.

•All of this was set against a backdrop where skills shortages were increasingly problematic across the whole of the South African mining industry

Platinum Demand Drops by 2.3%



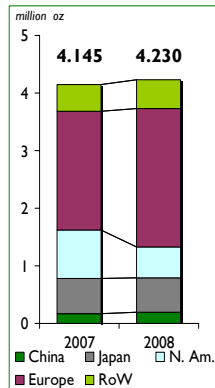
- Total net demand to fall by 155,000 oz to 6.52 million oz
- Gross autocatalyst demand set to rise by 85,000 oz to 4.23 million ounces
- Jewellery demand to drop by 340,000 oz to 1.12 million oz
- Investment demand to fall to 145,000 oz
- Industrial demand forecast to rise 10.5% to 1.995 million oz

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- Turning to platinum demand , we see a mixed picture ...
- Gross autocatalyst demand – the green bar in this chart - should rise by 85,000 oz this year. In considering this number, I would ask you to remember my earlier comments about the contrast in conditions in the first half of the year compared to the sharp downturn we are seeing in the fourth quarter.
- Jewellery demand is expected to fall by 340,000ozs to 1.12m ozs and I will explain a little more about that later
- Investment demand also looks likely to fall....
- but in spite of the deteriorating economy there should be good overall growth in a number of industrial sectors for the year as a whole.

Platinum Demand: Autocatalyst



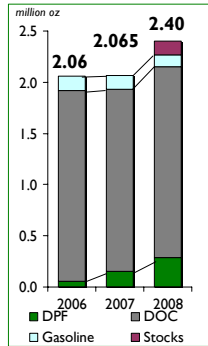
- Gross auto sector platinum purchases rise by 2.1% to 4.23 million oz
- North American weakness cuts demand by 305,000 oz
- European demand driven 335,000 oz higher by diesel demand
- Growth in China and the Rest of the World region despite substitution of platinum by palladium
- Movements in stocks have little impact

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- Looking at gross autocatalyst demand a little more closely
- Auto industry purchases of platinum are expected to grow by 2.1% to 4.225m ozs, despite a 305,000 oz fall in demand in North America due to substitution, a move by consumers to smaller vehicles and depressed production output, particularly in the fourth quarter.
- However, this should be outweighed by increased demand in Europe – the magenta bar here – where increased use of platinum in the diesel sector will push demand up to 2.4 million ounces.
- There was also some growth in China and the Rest of the World region as booming car production and increased use of platinum on heavy duty diesel vehicles negated the impact of thrifting and the introduction of more palladium into both gasoline and diesel catalysts.
- Finally, it is worth noting that we have seen some sales of strategic stocks of platinum by the North American automakers. However, the impact on the market has been minimal as we saw purchasing of extra stocks by European companies over the same period.

Platinum Demand: European Autocatalyst



- European autocatalyst demand driven 16.2% higher to 2.40 million ounces
- Use on light and heavy duty diesel vehicles accounts for over 2 million ounces of demand
- Additional fitment of diesel particulate filters (DPFs) drives much of this growth

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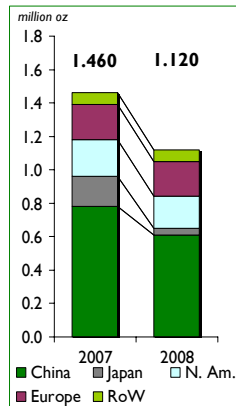
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• Within Europe, total platinum demand should climb by more than 16 per cent to 2.40 million ounces with almost 90 per cent of this, or more than 2 million ounces, for use on diesel vehicles – both light and heavy duty.

• The market share of the diesel engine in the light duty vehicle sector is still rising slowly and should be over 53 per cent of all vehicles sold in Europe this year.

• With between forty to fifty per cent of these now fitted with diesel particulate filters, most often catalysed soot filters containing platinum, demand will rise despite the increased use of palladium alongside platinum in both diesel oxidation catalysts – DOCs on the graph here – and DPFs.

Platinum Demand: Jewellery



- Jewellery demand negatively impacted by high prices in much of 2008
- Global manufacturer purchases of new metal set to fall by 23% to 1.12 million oz
- Affordability hit by high prices in the first half of 2008
- Recycling of old pieces to total over 500,000 oz in Asia

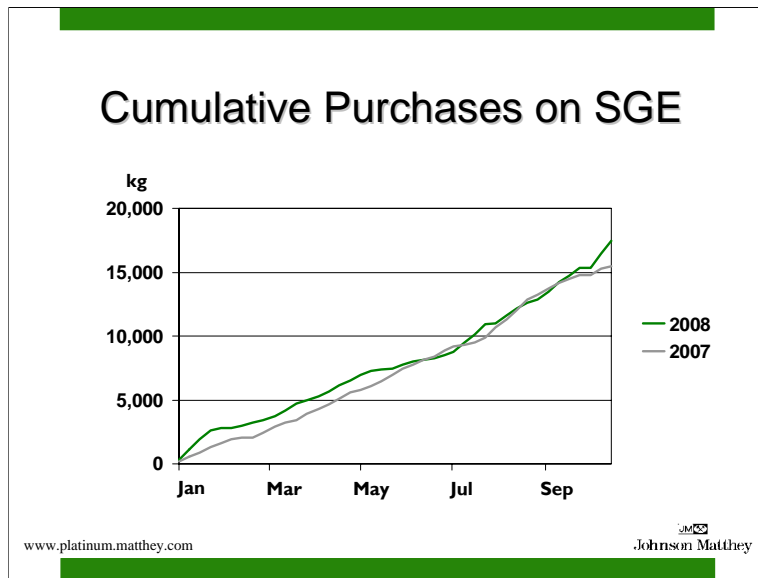
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• **Jewellery demand, however, looks less positive for this year with manufacturers set to buy only 1.12 million ounces of new metal in 2008 - 23 % less than in 2007**

• **Demand fell in almost every region as the high prices and high volatility of the first half of 2008 negatively affected affordability of platinum jewellery despite some strength in the bridal and luxury sectors.**

• **This price rise drove a rapid increase in the amount of recycling of old platinum jewellery in Japan and, to a lesser extent, China. We expect more than 500,000 oz of platinum to be recycled from this industry this year with some being reused in jewellery manufacturing and some being sold into other sectors after refining.**



•A comparison of the weekly total sales of platinum on the Shanghai gold exchange in 2007 and 2008 perhaps indicates more robust sales in 2008 than might have been expected.

•It should be emphasised that these include sales to the industrial and automotive sectors, as well as the jewellery industry.

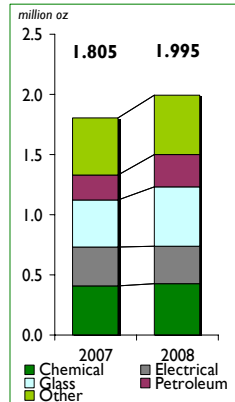
•There are a couple of changes worthy of note:

•The fall in purchases from the end of January as 2008 as the platinum price rose sharply. We believe that jewellery manufacturers and retailers were striving to reduce stocks in this period, reducing new metal purchases

-The recovery in purchasing in the third quarter, which has overtaken the rate in the corresponding period in 2007 and has been sharply higher in October.

-I think this chart illustrates the underlying resilience of Chinese demand and the potential for recovery in 2009 at the lower prices prevailing.

Platinum Demand: Industrial



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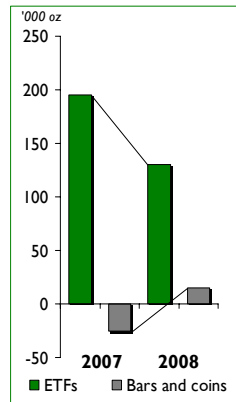
- Industrial demand forecast to rise by 10.5% to 1.995 million oz despite economic slowdown
- Demand expected to rise for chemical sector, glass and petroleum refining, driven by growth in Asian economies
- Thrifting drives electronics demand marginally lower

•Demand in the industrial sector is expected to perform well in 2008, rising by 10.5 per cent to just under two million ounces despite the economic slowdown that we are currently experiencing.

•Chemical industry demand will rise to 425,000 oz as more plants are built in China to meet a lack of domestic capacity for many bulk chemicals. Expansion of fibre glass production in China will boost demand in that sector and growth elsewhere in Asia – including India - will help increase petroleum refining demand.

•We have seen limited sensitivity of demand to the high metal prices in the first half of the year. However, demand in the electronics sector will fall marginally as thrifting of platinum in hard disks outweighs the growth in demand for these devices.

Platinum Demand: Investment



- Investment demand forecast to fall to 145,000 oz in 2008
 - First and second half of 2008 likely to show very different demand
- ETF demand likely to decline to an estimated 130,000 oz
- Japanese net investment demand for large bars set to be slightly negative

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- **Investment demand is set to fall from 170,000 oz last year to 145,000 oz this year**
- **Although the two European Exchange Traded Funds will complete their first full calendar year of trading in 2008, demand is forecast to fall by 65,000 oz to 130,000 oz.**
- **Very large amounts of metal were purchased in the first quarter of 2008 as the price rose, but the problems in global financial markets drove heavy fund selling in the third quarter and, inevitably, an increase in ETF redemptions**
- **By way of contrast, in Japan, we saw strong disinvestment by the public of large bars in the first quarter of 2008, driven by high prices. However, we have recently seen very strong buying at prices below \$1,000 per ounce almost balancing the sales earlier in the year.**

Platinum Update

- Price has softened further in October
- North American automotive sales continue to weaken
- The pace of sales by funds has slowed
- Physical demand has strengthened in Asia; record sales on Shanghai Gold Exchange in October
- Smelter outages in final quarter
- Market still in deficit in 2008

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•Of course, in the current economic climate, there is widespread uncertainty in all markets, including the platinum market. And, with the recent unprecedented price movements, we feel it is worth updating you on the last month or so...

•As all of you will know, the price has softened further in October partly due to dismal North American automotive sales figures

•However, many of the funds which wanted to sell their long platinum positions, or were forced to, have already sold and the pace of these sales of futures positions and ETF holdings has slowed in the last month or so.

•Physical demand has strengthened in Asia in response to the low prices: as I mentioned earlier jewellers in China appear to be restocking with record sales of platinum on the Shanghai Gold Exchange in October. There has been very substantial buying of bars by individual investors in Japan.


•The shutdown of Anglo Platinum's Polokwane smelter in November will put further pressure on the supply side

•Overall, we believe the platinum market will still be in deficit in 2008

Platinum Outlook

- Platinum supplies from South Africa should recover somewhat in 2009
- Automotive demand to be supported by European diesel sector
- Industrial demand likely to weaken
- Jewellery demand to recover if prices stabilise
- Physical investment demand unlikely to rise significantly

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•In spite of these positive signs, the outlook remains extremely uncertain due to the economic slowdown.

•On the supply side, platinum sales by the South African miners should recover in 2009, driving global supplies higher. This reflects the likely processing of some pipeline material which will not be refined this year and the probability that the level of disruption seen this year at Amandelbult and other mines will not be repeated.

•On the demand side of the equation, a global slowdown will have an effect. However, automotive demand should be supported to an extent by the use of more diesel particulate filters in Europe, aided by the forthcoming Euro 5 light duty emissions rules, and also by continued growth in vehicle output in China, India and Russia, albeit at much slower pace than might have been anticipated a few months ago.

•Industrial demand is, though, likely to weaken. A widespread slowdown will see some plant construction delayed and demand for platinum could decline in the chemical sector. However, there remains a possibility of some growth in the glass and electronics sectors.

•Jewellery demand should rise. At current price levels, net demand in Japan should rise as recycling remains depressed. In China, although restocking has taken place, the reduction in metal prices has yet to fully feed through to retail prices. Lower retail prices should boost demand. Price volatility affects the trade's confidence and a sustained period of price stability would benefit the industry further.

•Investment demand will depend on platinum's price performance but the recent move by investors to liquidate all forms of investments in favour of cash and a flight from risk suggests that investment demand is unlikely to recover quickly



- Moving on to our price forecast for the next six months....
- We saw at the beginning of the presentation the unprecedented movements in platinum price in 2008.
- The soaring price in the first quarter of 2008 showed that fundamentals of supply and demand can still exert a significant influence.
- Equally, the fall in price since June has underscored the importance of investor support for this market



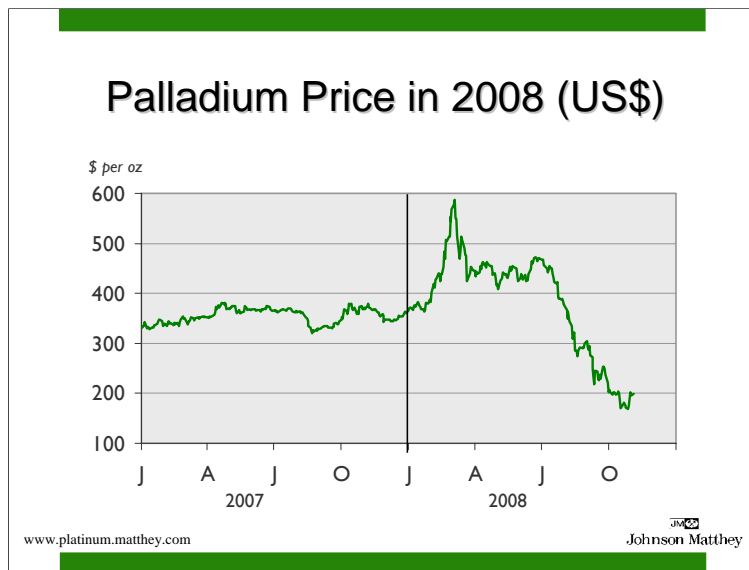
- **Forecasting a price in this environment is exceptionally challenging**
- **Platinum remains mainly an industrial metal and the economic cycle will have an impact on the trajectory of the price . However, it seems that some major economies, including China, will escape actual recession, supporting physical demand when it might otherwise be expected to fall more significantly.**
- **Nonetheless, the impact of the financial markets cannot be overestimated. Should the current economic crisis continue, platinum could trade as low as \$700 during the next six months as investors prefer cash to other investments. Conversely, if fund selling abates, the price will more closely reflect fundamentals, suggesting that platinum could recover to trade as high as \$1,400 an ounce within this period.**
- **I think the \$700 range in this forecast is a fair reflection of the turbulent economic conditions prevailing.**


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Palladium



•Turning to palladium



- Palladium was also subject to the same extreme price volatility as platinum in the first three quarters of 2008.
- It opened the year at \$370 and followed platinum and gold higher to a peak of \$588 in March.
- The price then retreated rather more rapidly than it did for its sister metal before the global commodity liquidation took hold in July.
- Platinum ended September near \$200oz.

Palladium: Key features

- Palladium market expected to be in reduced surplus of 320,000 oz in 2008
- Supplies from both South Africa and Russia to fall
- Gross autocatalyst demand rises marginally despite North American weakness
- Global palladium jewellery demand rebounds
- Physical investment demand withstands price volatility

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- **The palladium market is forecast to be in surplus again in 2008. However, the predicted surplus of 320,000 oz is much lower than in recent years.**
- **Supplies of palladium from primary mining in Russia, South Africa and North America are all set to fall this year. We currently also expect a decrease in sales of metal from Russian state stocks.**
- **The autocatalyst sector is likely to perform better than might have been expected, with weakness in North America offset by extra demand in Europe, China and the Rest of the World region.**
- **Net palladium purchases by the jewellery industry should increase in 2008, although they remain below their peak levels of 2005**
- **Physical investment demand should also rise as the Exchange Traded Funds have largely avoided the liquidation seen in other investment vehicles**

Palladium Supply and Demand

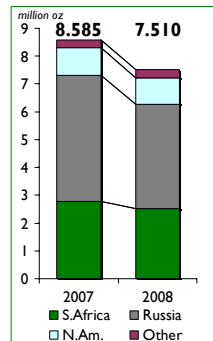
'000 oz	2007	2008	%
Supply	8,585	7,510	(12.5)
Demand	6,930	7,190	3.8
Movements in stocks	1,655	320	

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- In terms of the supply and demand balance....
- ... we see that palladium supply is set to drop by 12.5% to 7.51m ozs
- Palladium demand is expected to rise by 3.8 per cent to 7.19 million oz
- As a result, the surplus has narrowed to only 320,000 oz, the lowest for a number of years and significantly less than our estimate of Russian state stock sales this year

Palladium Supply Falls by 12.5%



- Supply shrinks by 1.065 million oz to 7.51 million oz
- Russian supplies forecast to fall to 3.74 million oz due to large decrease in sales of state stocks
- South African shipments to decline to 2.525 million oz
- North American production will also fall, to a forecast 950,000 oz

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• Looking at the supply side, we forecast a decrease in palladium supplies of 12.5 per cent, from 8.585 million ounces to 7.51 million ounces this year,

• Russian supplies are predicted to fall from 4.54 million ounces to 3.74 million ounces and we will say a little more about this on the next slide.

• In South Africa, palladium supplies will drop from 2.77 million ounces to 2.525 million ounces due to losses from short term shaft closures, skills shortages, intermittent electricity supply in the first half of the year and smelter outages.

• To complete a rather gloomy picture for the supply side, North American production should also fall from 990,000 oz to 950,000 oz in 2008.

Russian Palladium Supplies



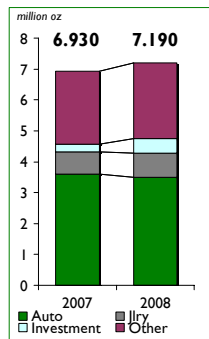
- Annual Russian primary production is forecast to fall below 3 million oz
- Sales of 800,000 oz of state stocks included in supplies
- September shipment from Russia to Switzerland to be sold in future years

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- Looking more closely at Russian supplies over the last few years, we see a gradual decline in primary output of palladium – almost entirely from Norilsk Nickel’s Russian operations – which is set to fall below 3 million ounces this year, following a smelter rebuild and bad weather which prevented the shipping of pgm concentrates in early 2008.
- We also believe that sales of metal from Russian state stocks will fall this year from the 1.49 million ounces sold in 2007 to only 800,000 oz this year.
- This figure is roughly equivalent to the metal shipped into Switzerland at the end of 2007 but not sold until this year and the large shipment in August 2008 of Russian material into Zurich.
- Import statistics show another very large shipment into Switzerland in September 2008. However, we do not believe this has been sold into the market at current prices and that it may instead be sold in future years. It is therefore excluded from our supply figures for this year.

Palladium Demand Climbs by 3.8%



- Global palladium demand to increase by 260,000 oz to 7.19 million oz
- Autocatalyst palladium demand grows in China and Europe but falls in North America
- Jewellery demand forecast to rise in China, Europe and North America
- Physical investment demand expected to grow strongly in 2008
- Demand to rise in the chemical and electronics sectors

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•Moving on to the demand side for palladium, we see a broadly positive picture for almost all applications as demand is set to rise by 3.8 per cent or 260,000 oz to 7.19 million oz

•There will be a slight increase in gross automotive demand although net demand will shrink due to strong growth in the recycling of spent autocatalysts

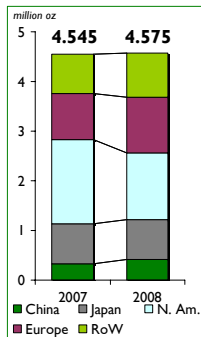
•Jewellery manufacturers will purchase more metal than in 2007, with demand rising in China, Europe and North America

•Industrial demand will also climb , with increased requirements from the chemical and electronics industries.

•Physical investment demand is also forecast to rise as more metal is bought through the exchange traded funds in 2008 than in 2007.

•Almost the only negative is a marginal decline in demand from the dental sector.

Palladium Demand: Autocatalyst



- North American demand to fall by 350,000 oz to 1.345 million oz
- Palladium demand in China and the Rest of the World region expected to grow strongly
- Greater use of palladium in diesel sector to help lift European demand by 190,000 oz

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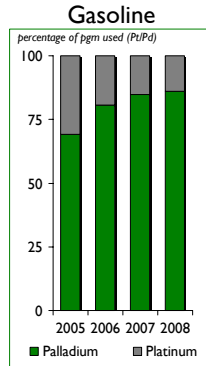
•The autocatalyst sector is once again the main user of palladium and gross demand here will grow by 30,000 oz to 4.575 million ounces.

•This is despite a likely 15 per cent fall in North American light duty vehicle output projected for this year and a move towards smaller average engine sizes which will slash demand in North America by 350,000 oz to 1.345 million ounces, the lowest figure since 2003 and less than half of the peak figure at the start of the decade.


•Palladium purchases for use in China will rise, reflecting the production of an additional one million catalysed vehicles this year compared to 2007. The car industry has done well in Russia, India and South America and demand will grow strongly in the Rest of the World region, from 785,000 oz to 895,000 oz.

•Palladium use will also increase by 190,000 oz in Europe, more of which on the next slide.

Pgm choice in Autocatalysts

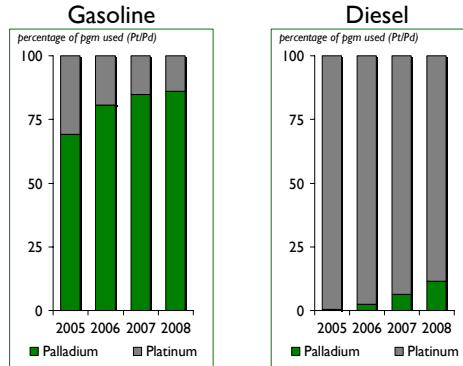


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- In the European gasoline sector, auto makers are still working on replacing platinum with palladium in three-way catalysts.
- At some manufacturers, this process has now proceeded as far as it can. At others, there may still be some switching as new Euro 5 catalysts are fitted as standard towards the end of next year.
- In fact, with a small decline in the number of gasoline cars produced in Europe in 2008 and with thrifiting always occurring almost regardless of metal prices, total palladium usage on gasoline catalysts in Europe could fall this year.

Pgm choice in Autocatalysts

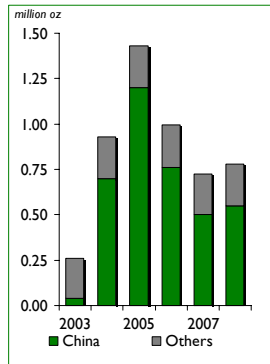


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- Looking at light duty diesel vehicles, much the same trend can be seen, with palladium being increasingly used in diesel oxidation catalysts and, now, in diesel particulate filters alongside platinum.
- The number of platinum:palladium formulations being fitted to vehicles has increased and the typical palladium to platinum ratio is also increasing such that more than 10 per cent of the precious metal applied in diesel exhaust aftertreatment systems is now palladium, a figure that should increase again significantly in 2009.

Palladium Demand: Jewellery



- Chinese new palladium purchases to climb by 50,000 oz to 550,000 oz
- Use of recycled old palladium stock diminishing
- European and North American demand set to rise
- Japanese demand expected to decrease

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• Looking at the palladium jewellery market, we now expect to see a reversal of the trend of the last two years as net palladium demand is forecast to rise by 55,000 oz to 780,000 oz.

• Looking at the graph on the left, it is clear that palladium jewellery is still at a relatively early stage in its life cycle, with significant demand commencing only in 2004.

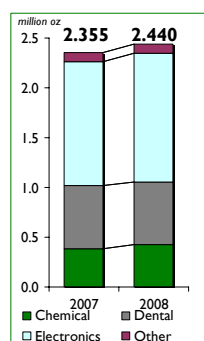
• As we have previously stated, much of this metal was used to produce Pd950 stock for the Chinese market. Although some of this material was sold to consumers in the form of jewellery, demand in 2006 and 2007 was depressed by the return of much of this material for reworking into the dominant Pd990 alloy. We now believe that this process is almost complete and that the rise in demand in 2008 is a more accurate reflection of the market.

• Demand in the first half was depressed by the earthquake in Szechuan but lower prices in the second half have driven a recovery and total demand will therefore rise.

• European and North American purchases of palladium for jewellery manufacture are both set to rise this year. Palladium has established a healthy niche in men's wedding bands and new alloys are steadily attracting more manufacturers to work in this material.

• By contrast, palladium jewellery still has no foothold in Japan and demand will drop in line with the increased recovery of the 10-15 per cent palladium content of the platinum jewellery being recycled there.

Palladium Demand: Industrial and Dental



- Chemical demand expected to rise to 425,000 oz
- Electronics demand to grow for seventh successive year, to 1.29 million oz
- Dental purchases forecast to shrink by 5,000 oz to 630,000 oz

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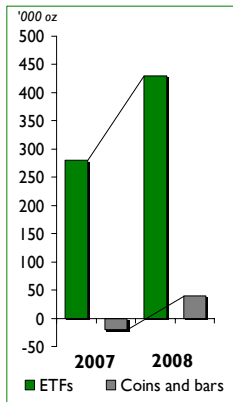
•Demand was also strong in other sectors

•In the chemical industry, palladium demand benefited from the installation of new commodity chemical plant capacity in Asia. With the Chinese economy and others in the region growing rapidly, more plants have been constructed in this region this year than last, driving demand up to 425,000 oz from 385,000 oz

•The electronics sector will also take more metal, and is set to grow for the seventh successive year from 1.24 million ounces to 1.29 million oz. Increasing complexity and strong sales of consumer electronics devices will boost demand for multi-layer ceramic capacitors, driving this demand higher

•The only slight blemish was in the dental sector. Although high gold prices incentivised the use of low gold, high palladium alloys in North America, a fall in European dental demand for palladium means that global demand will slip by 5,000 oz to 630,000 oz.

Palladium Demand: Investment



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- Palladium investment demand forecast to rise to 470,000 oz
- Demand through European ETFs to rise to 430,000 oz
- Demand from coins and bars in North America turns positive in 2008

•Palladium physical investment demand is also set to be strongly positive in 2008, rising from a net 260,000 oz to 470,000 oz.


•Most of this demand is from investors in the exchange Traded Funds with an estimated 430,000 oz of metal to be bought in this , the first full year of trading compared to 280,000 oz last year. The buying pattern in the first quarter of 2008 was similar to that of platinum, with much metal purchased as the price rose. However, there were few large redemptions as the price fell, suggesting that much of this metal is now tightly held by investors with longer term horizons.

•Price fluctuations in the other precious metals reduced the availability of platinum and gold coins and has rekindled some interest in palladium coins and bars in North America where demand is expected to rise from a net disinvestment of 20,000 oz last year to net demand of 40,000 oz this year.

Palladium Update

- Production to be reduced by temporary closure of North American Palladium
- Shutdown of Anglo Platinum's Polokwane smelter will increase pipeline stocks
- Jewellery demand in China has picked up sharply in the third quarter
- Automotive production weakening further
- Market still in small surplus in 2008

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•To give some idea of what has changed in the last couple of months in the palladium market, we have two significant changes on the supply side.

•North American Palladium has announced the temporary closure of its Lace des Iles mine in response to low metal prices. This would normally produce somewhere above 200,000 oz of palladium annually which will be cut from supplies while it is mothballed. The shutdown of Anglo Platinum's Polokwane smelter will increase their pipeline stocks

•On the demand side, Chinese jewellery demand appears to have recovered well following a first half where it was badly hit by the earthquake in Szechuan.


•And, of course, the global economic slowdown continues to hit automotive output

•However, our view remains that the palladium market will be in a small surplus this year

Palladium Outlook

- Palladium production expected to rise in 2009
- Size and fate of Russian stocks remains unclear
- Mixed prospects for industrial demand
- Jewellery demand likely to increase
- Continued substitution of platinum by palladium expected in diesel and gasoline sectors

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•So, turning to our outlook for palladium...

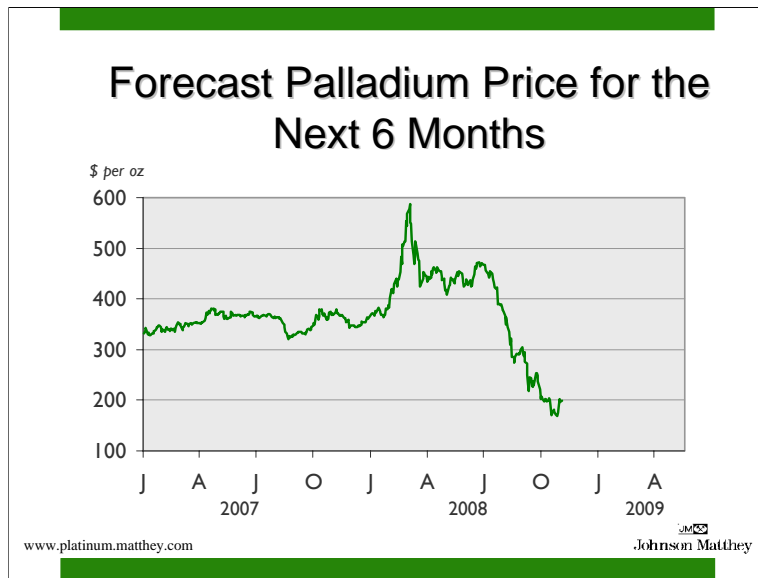
•Despite the closure of Lac des Iles, palladium supplies from primary production are expected to increase in 2009, largely due to some recovery in South Africa.

•There is still little clarity over the size of Russian stocks although recent comments that they may be exhausted in one to five years confirm that they are gradually being run down to lower levels. However, the overhang of these stocks still acts as a negative influence on the palladium price.

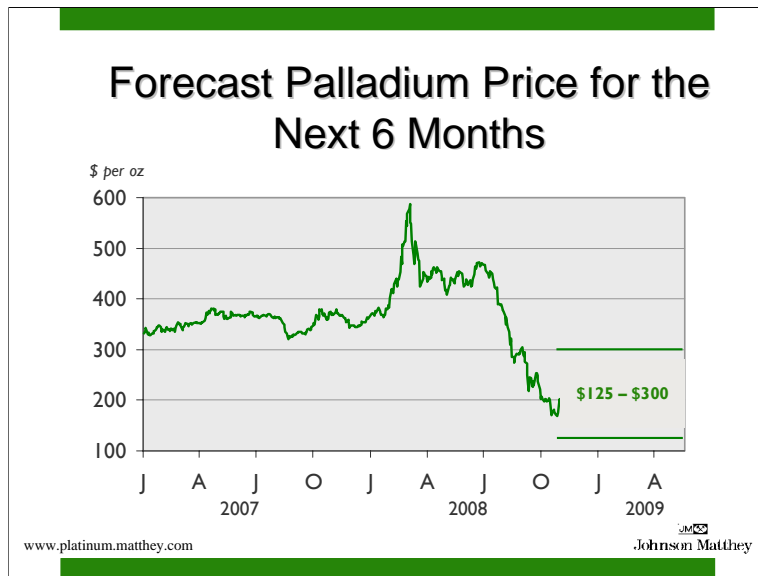
•On the demand side, the picture is clearly influenced by the current economic climate. Although there is considerable uncertainty, we currently expect a slowdown in the chemicals sector where limited availability of debt finance will delay some new plant construction. However, in the electronics sector, the constant addition of extra functionality into devices should boost palladium demand from multi-layer ceramic capacitors in spite of the economic downturn.

•Jewellery demand shows some signs that it might increase, with signs that purchases of new metal in China will continue to recover.

•And, in the automotive sector, while we see thrifting, programmes focusing on the introduction of palladium into diesel catalysts are moving faster than previously expected. This additional use of palladium in the European diesel sector means that global palladium automotive demand could still grow in 2009 despite the economic slowdown.



- Turning to our forecast for the palladium price for the next six months...
- We have seen already the wildly fluctuating palladium price in the year to date



- In spite of some positive aspects to the demand side, the worsening economic climate can be expected to curtail any benefit from improving fundamentals as investors remain wary
- With continuing negative economic sentiment, the palladium price could drop as low as \$125 during the next six months.
- However, should economic conditions stabilize or begin to improve, palladium's improving fundamentals could see it trade as high as \$300 within the same period.


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Rhodium



•And we will end with a brief look at the rhodium market...

Rhodium



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- Supplies set to fall to 748,000 oz
- Demand forecast to drop to 810,000 oz
- Market in deficit again in 2008, by 62,000 oz
- Price hits a series of records in early 2008
- Fund and other sales hit price in third quarter

•Rhodium supplies have been hit by the same issues as platinum and palladium and are forecast to fall heavily in 2008.

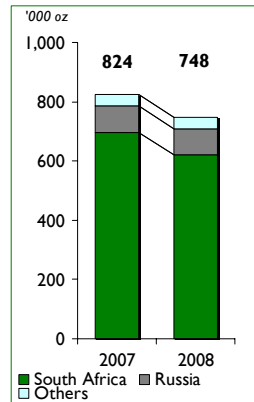
•Rhodium demand is also expected to decline, from 858,000 oz in 2007 to an estimated 810,000 oz this year.

•Overall, therefore, rhodium is set to record another deficit, the fifth in a row, of an estimated 62,000 oz

•These fundamentals in a notoriously illiquid market were sufficient to drive the rhodium price rapidly up to record highs in the first half of the year, reaching a record Johnson Matthey base price of \$10,100 in June.

•However, forced sales by hedge funds and liquidation of strategic stocks by car companies hit the price hard in the third quarter, sending it back below \$2,000 an ounce in October as rhodium moved into an effective short term surplus.

Rhodium Supplies to Fall by 9.2%



- Global supplies to slip by 76,000 oz to 748,000 oz
- South African supplies forecast to decline to 620,000 oz in 2008
- Second half of 2008 expected to be stronger than first half
- Rhodium supplies from Russia to be unchanged at 90,000 oz.

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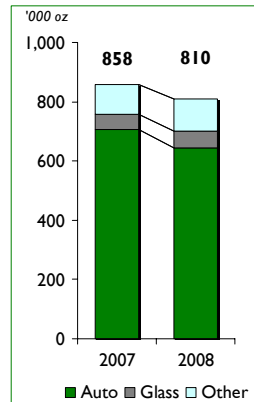
•On the supply side, rhodium supplies are predicted to decline by 76,000 oz to 748,000 oz from 824,000 oz in 2007, reversing three years of growth in output.

•We have already commented on the range of problems experienced throughout the mining industry in South Africa which also affected rhodium production. Supplies South Africa are expected to fall from 696,000 oz to only 620,000 oz.

•One point of note is that second half output in 2008 should be stronger than in the first half, contributing to the fall in prices noted in the previous slide.

•Rhodium supplies from Russia are expected to be unchanged at 90,000 oz.

Rhodium Demand to Decline by 5.6%



- Net demand expected to shrink by 48,000 oz to 810,000 oz
- Gross autocatalyst demand forecast to fall to 829,000 oz due to fall in North America
- Autocatalyst recycling will rise to 184,000 oz
- Glass demand predicted to grow to 57,000 oz

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- **Overall, net rhodium demand is likely to shrink in 2008 for the first time since 2001, We forecast a decline of 48,000 oz to 810,000 oz**
- **The autocatalyst sector is responsible for all of this fall. The automakers have been working hard on thrifting rhodium for some time in response to high prices. This thrifting will drive demand lower in Europe and Japan despite steady production for year the year taken as a whole.**
- **In North America, the same thrifting has taken place and the effect has been exacerbated by a move away from so-called gas-guzzlers towards smaller cars and by dismal production figures. The car companies here have also sold some strategic stocks of rhodium. As a result, rhodium demand here will fall by roughly 50,000 oz to 222,000 oz with this fall steeper in the second half of the year than the first.**
- **Outside of these regions, we will see good growth in vehicle output in Chin and Russia, where demand for rhodium will increase.**
- **Autocatalyst recycling will remain vital to the balance of this market and the amount of metal recovered should rise from 172,000 oz to 184,000 oz.**
- **Demand in the glass sector will rise despite some move to lower rhodium content (higher platinum content) alloys. The European and North American glass industries remain weak and the transfer of capacity to Asia has allowed the sale of some surplus metal. However, extra demand from new capacity for fibre glass in China and for LCD manufacturing in the rest of Asia will drive demand higher.**

Rhodium Outlook

- Growth in vehicle manufacturing in China, Russia and elsewhere to support rhodium demand
- Thrifting in autocatalyst to continue
- Autocatalyst recycling volumes to increase
- Rhodium production to recover next year
- Market to be close to balance in 2009

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• Looking at the outlook for rhodium, although production in much of the global car industry is expected to disappoint next year, there is still potential for significant growth in output in China, India, Russia and other developing markets.

• Any increase in demand is likely to be balanced by thrifting and supply side factors:

• Rhodium thrifting will continue despite a decrease in the price, affecting demand negatively in the three major regions – North America, Europe and Japan. We do not, however, expect to see the same reductions in strategic stocks in North America that have taken place in 2008 repeated in 2009.

• Autocatalyst recycling volumes will continue growing organically in all regions, with Europe and North America being the two most important contributors.

• At the same time, rhodium production should recover in line with increased platinum output from South Africa.

• Overall, therefore, the rhodium market should be close to balance in 2009

• As usual, we will not be making a rhodium price forecast, with the events of the last year perhaps demonstrating the futility of doing so.



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Platinum 2008 Interim Review



18th November 2008

•That concludes the presentation. We'd now be happy to take your questions