



Platinum 2004 – Update 2

Summary

In this, the second of our updates, we discuss developments in the key pgm markets since the end of the third quarter of 2004. We assess the impact that these changes may have on the provisional supply and demand numbers that we published last November, and also comment on how we expect the platinum and palladium markets to develop in the short term.

Our final, detailed analysis of how the pgm industry performed in 2004, together with further discussion of demand trends this year and a revised six-month price forecast, will be published in **Platinum 2005** on the 16th of May.

Chinese platinum jewellery market resilient

In our Interim Review, published last November, we forecast a 20 per cent fall in Chinese jewellery demand for platinum in 2004 to 960,000 oz. Recent information from China about the level of demand last year has been mixed: feedback from the largest jewellery manufacturers suggests the rate of fabrication fell by an even greater proportion, but other sources of data (including imports of platinum to Hong Kong and the volume of metal sold via the Shanghai Gold Exchange, *see chart below*) tend to support a less pessimistic view of the market.

It is certain that the high price of platinum deterred the jewellery trade from holding large inventories, especially outside main holiday sales periods. As a result, the volume of old platinum jewellery stock returned to manufacturers in exchange for new designs increased. Many manufacturers also reduced their production of platinum jewellery in favour of white gold and/or palladium products as, during the first half of the year at least, these offered much better profit margins.

However, on the plus side, platinum benefited from the strong preference amongst



Good volumes of platinum were purchased by Chinese jewellery manufacturers via the SGE in December and January in advance of the 2005 New Year holiday.

Chinese consumers for diamonds to be set in platinum, particularly in the case of bridal rings. Total sales of diamond-set jewellery grew substantially in China last year; the volume of rough and polished diamonds imported via the Shanghai Diamond Exchange increased by a reported 35 per cent.

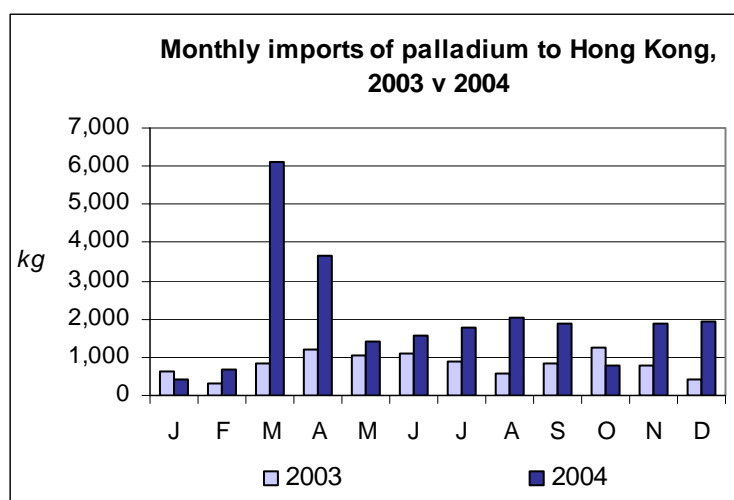
At this stage we remain comfortable with our earlier forecast of 960,000 oz for Chinese jewellery demand for platinum in 2004. When set against the background of an increase in the average platinum price of over \$150 in 2004, greater promotion of white gold, and the almost overnight development of a palladium jewellery market, a 20 per cent fall in platinum demand represents a resilient performance.

Chinese palladium jewellery production exceeds expectations

Our November estimate of Chinese jewellery demand for palladium in 2004 was 510,000 oz, up from a minimal 25,000 oz the previous year. However, we are likely to revise this upwards significantly. Research is continuing but it is possible that the final figure for demand last year will exceed 600,000 oz. It is worth noting that this metal was destined almost solely for the manufacture of palladium jewellery; white gold alloys produced in China do not generally contain any palladium.

After an initial surge in demand for palladium early last year as the trade pipeline was filled with stock, purchases of the metal by the jewellery sector moderated. Nevertheless, palladium imports to Hong Kong, the majority of which were for jewellery fabrication, averaged over 51,000 oz (1.6 tonnes) per month between May and December.

The rapid development of the palladium jewellery market reflects the dynamics of the broader Chinese economy. Despite efforts to slow growth, Chinese GDP climbed by 9.5 per cent in 2004, per capita income of urban residents increased by more than 11 per cent between January and November, and total retail sales of consumer goods surged by more than 13 per cent over the same period.



Palladium imports to Hong Kong jumped in March and April last year as initial stocks of palladium products were established by the Chinese jewellery trade.

Outside the major metropolitan areas retailers were fairly quick to add palladium to their jewellery product lines. Consumers seeking white precious metal jewellery but who could not afford platinum were attracted to palladium, which has the advantage of 'purity' over white gold. It appears that palladium both helped to expand the overall precious metal jewellery market as well as taking some sales from white gold and from plain platinum jewellery.

However, in the largest cities, where platinum has a very strong market presence, retailers have generally been more cautious about cannibalising sales of platinum by stocking palladium products. In addition, for image-conscious jewellery buyers the low price of palladium is actually a negative factor.

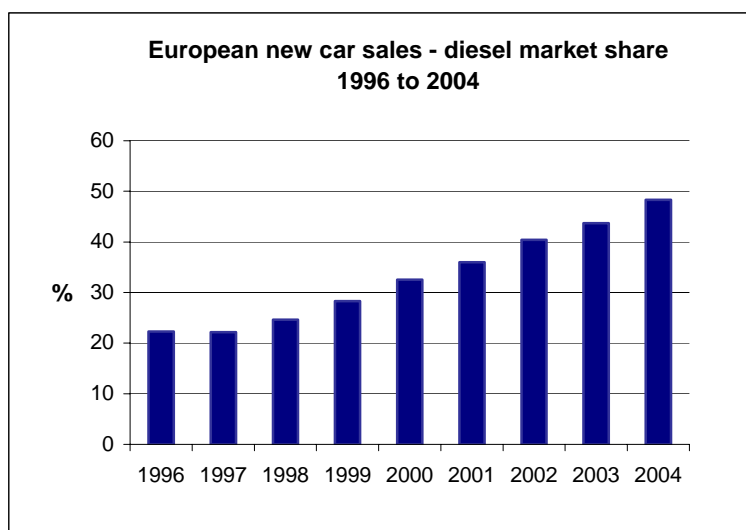
European diesel car sector is the main engine of growth for platinum

The European light-duty diesel sector was the main driver of growth in demand for platinum in 2004, accounting for around 1.25 million oz of platinum, and is likely to remain so in 2005. Sales of diesel cars in Europe reached 7 million units last year, accounting for over 48 per cent of total new car sales; more than half the number of new cars sold during the fourth quarter of 2004 were diesel powered.

Emissions legislation also supported growth in platinum demand from the autocatalyst sector last year and will continue to have a positive influence on demand going forward. Euro IV

regulations came into effect for new car models in January 2005; the new standards required substantial reductions in carbon monoxide and particulate emissions, which were achieved in many instances with the help of higher platinum loadings in diesel oxidation catalysts.

Catalysed diesel particulate filters (DPF) also became more common in 2004, both fitted as standard by auto manufacturers to some heavier, larger-engined cars, and purchased as optional extras by environmentally aware consumers.



Diesel vehicles continued their rapid penetration of the European car market in 2004 as sales exceeded 7 million units for the first time.

Strong growth in LCD glass capacity

Our latest research suggests that glass industry demand for platinum was even stronger in 2004 than the 240,000 oz that we forecast in our Interim Review. We therefore expect to revise this figure upwards following further analysis of the market.

The rapid rate of new furnace construction in Asia for the manufacture of high quality liquid crystal display (LCD) glass was the primary source of increased platinum demand from the glass industry last year. This reflects the tremendous growth in global sales of consumer goods containing LCD screens such as laptop computers, flat screen televisions, mobile

phones, cameras, digital music players, and DVD players. However, the installation of new glass fibre production lines, notably in China, also contributed to growth in platinum demand.

The strength of glass industry demand goes some way towards explaining a jump in platinum imports to Japan in 2004, which according to trade statistics climbed by over 26 per cent to exceed 1.96 million oz (61 tonnes).

Rhodium market remains tight

Supply and demand for rhodium were finely balanced in 2004 and the firm fundamentals were in part responsible for triggering a rally in the price of rhodium during the year. From mid-2004 onwards the rally accelerated due to a speculative squeeze of lease rates. As lease rates began to climb, some industrial users sought to buy metal for spot or short-term forward delivery, rather than borrowing. With the availability of spot metal already tight, the price surged from \$825 at the beginning of June 2004 to over \$1,600 in early February this year.

It has been notable that higher rhodium prices have not (as yet) drawn additional Russian metal into the market, which may indicate an absence of readily available stocks. Meanwhile, South African supplies of rhodium have not increased as fast as predicted, suggesting that process pipeline issues may have had an impact.

Platinum supply to grow in the short-term but uncertainties remain

There were several disruptions to production of pgm in South Africa in the second half of 2004, including strikes at Impala and Anglo Platinum operations and a serious fire at Northam's mine. Without these incidents South African platinum supply would have exceeded 5 million oz. As it is, we are likely to maintain our estimate of 4.98 million oz for South African platinum supply last year.



The strength of the rand is adversely affecting the economic viability of pgm projects in South Africa.

In South Africa, the strength of the rand and escalating local costs remain major concerns for pgm producers and exploration companies. At the start of 2004 the rand stood at around R6.64 to the dollar and at that time there was a strong consensus that it would weaken during the year. In the event, the South African currency actually appreciated by around 15 per cent over the course of the year, passing R5.64 to the dollar in December.

Although the rand has since weakened somewhat, the long-term viability of many of the planned new pgm mines in South Africa remains uncertain. This is particularly true for projects on the eastern limb of the Bushveld Complex. Further revisions to expansion programmes are therefore likely unless the rand weakens much more substantially. This year, however, expansions already in hand are expected to result in solid growth in South African pgm output.

The foundations for the long-term expansion of the Zimbabwean pgm industry have also become less stable in recent months as various government initiatives have served to confuse and concern mining companies and overseas investors. In particular, the Reserve Bank of Zimbabwe under its new 'Enhanced Platinum Sector Regime (EPSR)' has claimed responsibility for 'marketing' pgm. Given that all Zimbabwean pgm output is currently exported in the form of concentrate to South Africa where it is refined, it is difficult to see what practical effect this will have at the present time.

Platinum demand set to stay firm but market moving towards surplus

Demand for platinum from the auto sector is expected to remain strong over the coming months, again powered by the European light-duty diesel sector, with growth in both the market share and sales of diesels expected to continue.

We also expect to see increased voluntary fitment of DPF this year following the German government's decision to offer tax rebates to purchasers of diesel cars fitted with particulate filters. Several other European countries are also considering offering financial incentives to encourage the use of DPF, an approach that is supported by the European Commission.

The outlook for Chinese jewellery industry purchases of platinum for 2005 as a whole depends very much on the volatility of the platinum price, as well as the absolute highs and lows. Demand was good throughout the first three weeks of January as jewellery stores ordered stock for the Chinese New Year holiday but then began to tail off. We expect purchases of platinum by Chinese jewellery manufacturers to be relatively slow for the remainder of February and into March, unless the price falls significantly.

The situation in other jewellery markets is rather uninspiring. With interest rates in the USA on an upward path, jewellery sales are vulnerable to any downturn in consumer spending. In Japan, the rate of economic growth is slowing, whilst in both markets the price of platinum will continue to be an issue for retailers and consumers.

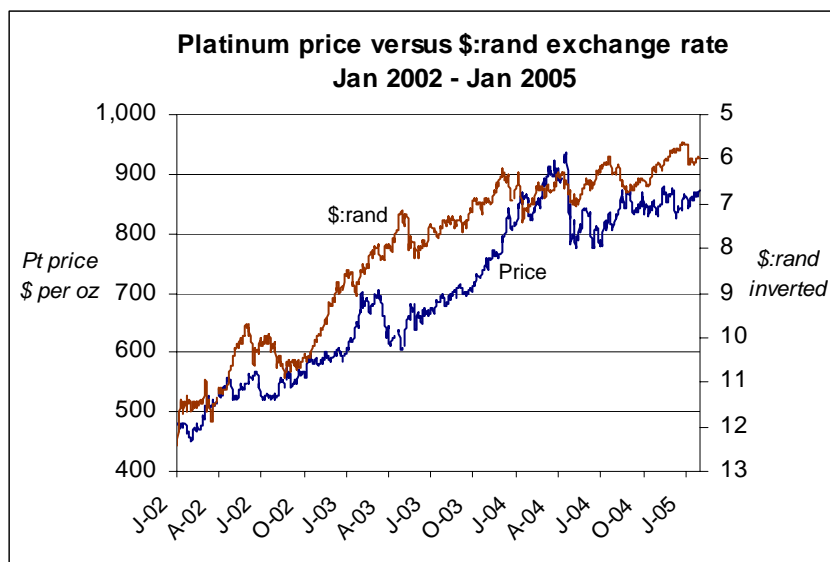
In the industrial arena, additions to LCD glass manufacturing capacity in Asia are set to continue at a rapid pace and demand for platinum from the glass industry is likely to remain strong throughout 2005.

Nevertheless, we still expect growth in supply of platinum from South Africa to outweigh growth in overall demand for the metal this year, and so we continue to forecast that the market will move towards a position of surplus in 2005. The rate at which this occurs will depend to a large extent on the price-sensitive Chinese jewellery market.

Platinum price is forecast to ease

Since November 2004, platinum has largely traded in the upper end of our forecast range of \$760 to \$880. Occasional breaks above \$880 have been short-lived and have tended to trigger speculative profit-taking and a marked fall-off in interest from Chinese buyers of metal.

The fundamentals suggest that the price should continue to trade within our predicted range. Nevertheless, it is important to bear in mind that the performance of the platinum price over



This chart demonstrates the closeness of the relationship between the appreciation in the value of the rand and the strength of the platinum price over the last three years.

the last three years has been intimately linked to fund buying and selling of futures, which in turn has been based largely on the direction of foreign exchange markets. There has been a very strong relationship between the platinum price and the strength of the South African rand, as well as between the platinum price and the overall slide in the value of the US dollar against other major currencies.

Recently the rand has weakened substantially, moving from close to \$1=R5.91 at the end of January to touch \$1=R6.24 on the 8th of February, whilst the dollar also strengthened against other major currencies. Fund liquidation of long futures

positions, coupled with an absence of Chinese buyers due to the New Year holiday, resulted in the platinum price sliding from a peak fixing of \$881 on the 1st of February to less than \$850 by the close of trade on the 8th. The interaction of currency markets and fund activity, and the fundamentals of platinum supply and demand will all continue to influence the price going forward.

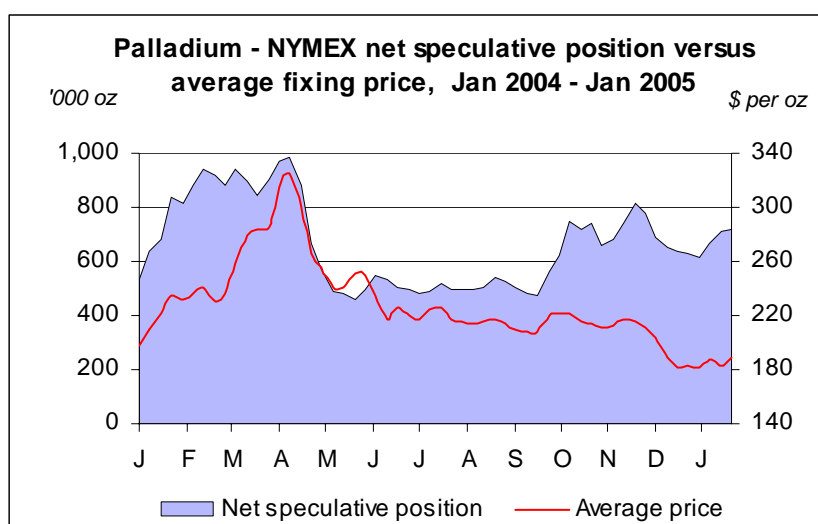
Palladium surplus persists, price outlook remains weak

The palladium market was heavily in surplus in 2004, this despite new demand of well in excess of 500,000 oz from Chinese jewellery manufacturers, and an improved rate of purchasing by the autocatalyst and electronics industries. Swiss trade data reflect this imbalance, showing a net inflow of over 700,000 oz of palladium last year. This raised the total implied inventory in Switzerland to well over 6 million oz. The scale of the surplus is evident from lease rates that are effectively negative and the fact that the palladium price ended 2004 at \$184, \$10 below where it started the year, despite very substantial speculative buying (see NYMEX chart).

The position of substantial surplus is expected to persist for the foreseeable future, notwithstanding further improvements in auto industry demand for palladium in both gasoline and diesel autocatalysts. The first diesel cars fitted with oxidation catalysts containing a proportion of palladium in place of platinum are likely to enter showrooms around the middle of this year. However, they will account for only a very small percentage of total diesel autocatalyst production in 2005.

The scale of Chinese purchasing of palladium for jewellery manufacture in 2004 was boosted by the need to establish stocks of product throughout the trade. Without this one-off effect on

demand, purchases of palladium may slip lower this year. There are also indications that some fabricators and retailers may have overstocked palladium products in the run up to the Chinese New Year.



The palladium price sank below \$200 in December last year and has traded close to \$180 since then, even though funds have maintained very large net long futures positions.

At the same time, production of palladium in South Africa will increase and the supply of palladium from autocatalyst recycling will continue to grow. In summary, the palladium market remains weak and the risks to the price remain biased to the downside.

