



When we invested in down-stream beneficiation, it was not only about the metal, but also about creating jobs and developing local skills and expertise. Ms Phumzile Mlambo-Ncguka, the Minister of Minerals and Energy, officiated at the official opening of the Silplat project (in which Implats is a significant partner, along with BAE-SAAB, Silmar SpA and Micofin) in Cape Town in April 2004. By supporting this project through both an equity investment and an innovative platinum loan facility, Implats has played a role in this export-focussed facility to attract hard currencies into the country.

## Markets characterized by extreme volatility

## Market review

The markets for PGMs have once again been characterized by extreme volatility, which has been mirrored across most commodities and the major currencies in FY2004.

A combination of a strong Chinese appetite for commodities and a weak Dollar saw the platinum price peak at \$937/oz in April 2004, from a low of \$655/oz in July 2003. These highs were unsustainable as margin pressure from Chinese jewellery fabricators forced a retreat from the metal, resulting in a drop in demand of close on 20%. Prices subsequently retraced to the high \$700/oz range, allowing fabricators to replenish inventory pipelines at more realistic levels.

Growth in automotive demand was insufficient to prevent overall demand from declining, but still left the market in deficit.

Palladium demand fell once again as thrifting programmes from automotive users, resulting from the metal's meteoric rise in the late 90s, reached their peak. The platinum/palladium price difference should see more palladium being used at the expense of platinum. The palladium price was driven from a low for the year of \$160/oz to its high of \$333/oz, on the back of speculative activity and an announcement by Umicore that it could substitute palladium for up to 25% of the platinum used in its own diesel catalysts.

Sustained Dollar weakness and Rand strength are of some concern as this could impact on the future availability of platinum, and this could drive prices higher once again. This in turn should stimulate further substitution into palladium in the automotive industry.

Speculative rather than fundamental interest pushed rhodium prices up some 80% to \$900/oz. While nickel had an even more dramatic year with its price more than doubling to \$17,770/t on the back of world-wide growth in stainless steel production.

### Review of calendar 2003

#### Platinum

The platinum market registered its fifth consecutive year of deficit in 2003. However,

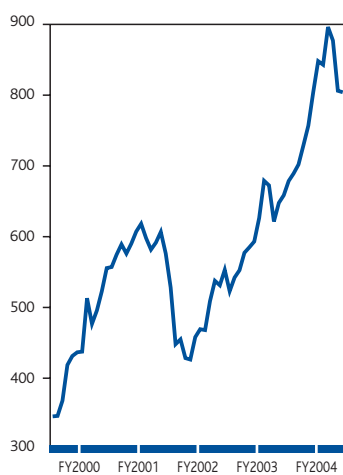
the gap narrowed as another year of growing demand by the automotive industry was outweighed by a decline in jewellery demand coupled with increasing supply.

#### Jewellery demand

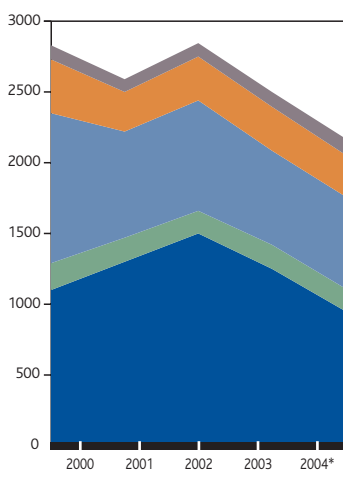
The rising and volatile platinum price finally took its toll on jewellery consumption with demand falling by 12% to 2.5 Moz.

In China, the major jewellery market, demand fell by almost 17% to 1.25 Moz. The decline resulted from manufacturers withdrawing from the market as margins came under pressure. This is because platinum jewellery in China is sold at the metal price, unlike other metal jewellery which is sold on a piece basis. This situation was further exacerbated by reluctance on the part of retailers to increase their prices in line with that of the free market and the outbreak of SARS during the first half of the year, which curtailed sales. However, platinum still remains the metal of choice in the fashion jewellery category at the consumer level. In addition to continuing to extend into the secondary and tertiary cities, platinum has begun to make inroads into the bridal sector, which has proved to be the cornerstone of other major markets. The commencement of platinum trading on the Shanghai Gold Exchange in August helped the manufacturing industry by eliminating the 17% VAT and reducing the consumption tax on platinum jewellery from 10% to 5%, the onus for payment of which was switched to the retailer.

Low margins and inventory sales coupled with a sluggish economy resulted in Japanese demand dropping by 15% to 675 000 oz. Total sales on a piece and value basis declined by 11% and 1% respectively compared with the previous year. This decline was almost entirely due to a 20% decrease in sales in the lower price brackets of up to ¥50 000. Sales in the higher price segments in most cases recovered. The strong in-roads made by white gold at the expense of platinum since the start of the decade ceased in 2003. Platinum's market share on a piece basis was unchanged at 26%, with white gold's 5% increase to 37% coming at the expense of its sister metal, yellow gold.



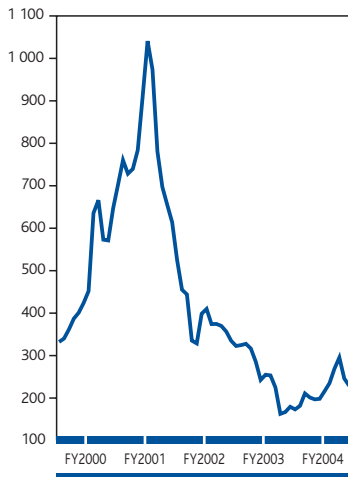
Free market platinum price (\$/oz) (monthly average)



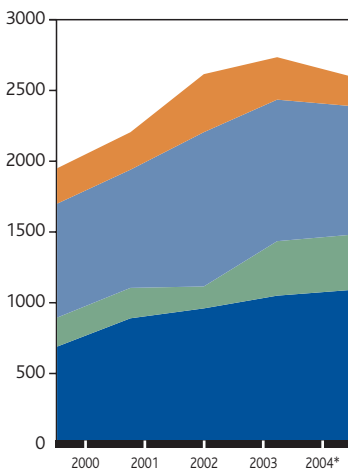
Jewellery demand – platinum (000oz)

■ China  
■ Europe  
■ Japan  
■ North America  
■ India and other  
 \* estimate

The automotive industry will be the major driver of platinum demand in the medium to long term



Free market palladium price (\$/oz) (monthly average)



Automotive demand – platinum (000oz)  
 ■ Europe ■ North America ■ Asia\*\* ■ Other  
 \* estimate  
 \*\* includes China since 2003

Platinum supply and demand

Calendar years (000 oz)	2004*	2003	2002	2001	2000
<b>Demand</b>					
Automobile	2 800	2 735	2 615	2 205	1 950
Jewellery	2 170	2 500	2 845	2 590	2 830
Industrial	1 660	1 590	1 565	1 560	1 490
Investment	10	15	80	90	(60)
<b>Demand</b>	<b>6 640</b>	<b>6 840</b>	<b>7 105</b>	<b>6 445</b>	<b>6 210</b>
<b>Supply</b>					
South Africa	4 885	4 650	4 455	4 120	3 780
Russia	800	1 000	950	1 100	1 150
Other	430	400	635	495	400
Recycling	650	615	590	555	535
<b>Supply</b>	<b>6 765</b>	<b>6 665</b>	<b>6 630</b>	<b>6 270</b>	<b>5 865</b>
<b>Surplus/(Deficit)</b>	<b>125</b>	<b>(175)</b>	<b>(475)</b>	<b>(175)</b>	<b>(345)</b>

\* Estimate

In the US, sales of platinum jewellery were virtually unchanged at around 300 000 oz. Sales in the bridal sector were up year-on-year despite the introduction of new lines in white metal such as titanium wedding bands for men. As was the case last year, it was fashion jewellery and in particular the lower price brackets, that bore the brunt of the rising and fluctuating metal price as manufacturers moved into white gold. On the other hand, sales at the top end of this segment remained resilient.

Automotive industry

Platinum demand for use in autocatalysts rose by 5% in 2003 to 2.74 Moz. Strong growth in European diesel car sales, tightening emission legislation and an increase in light duty vehicle sales in the rest of the world drove the increase in demand.

Low interest rates and cash-back incentives on new vehicle purchases continued to underpin US light vehicle sales which totaled 16.7 million units, only 1% lower than the previous year. Light trucks once again took market share from cars and now account for just over 53% of the total light vehicle market. Because of their larger engine size, light trucks generally require larger catalysts with higher loadings to meet the emission standards than do their passenger car counterparts. The pre-empting by some auto manufacturers of the Tier 2 and LEV2 standards (both of which took effect from the start of 2004) in order to obtain emission credits, also boosted demand.

Diesel car sales continue to be the main driver of platinum demand in Europe. In 2003, diesel sales grew by almost 7% to 6.2 million units and now account for 43.6% of total new car registrations. Compared to gasoline engines, diesels operate with more air, which results in cooler combustion and lower exhaust temperatures. This environment requires a platinum catalyst, often with higher loadings, to enable the required oxidation performance.

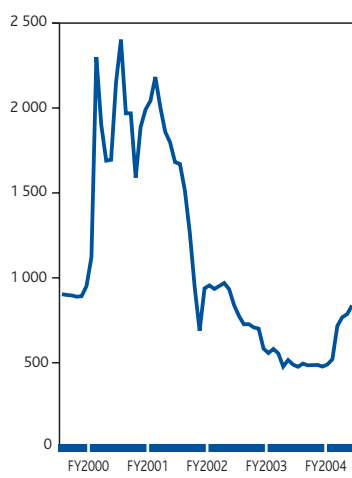
Demand in the rest of the world was driven by a combination of rising car sales, particularly in Asia, and the spread and adoption of tighter standards.

Palladium

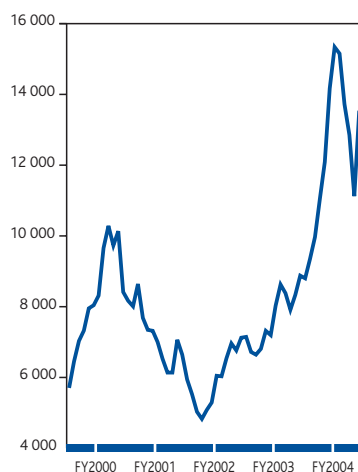
The fundamentals for palladium have been anaemic, with falling demand and rising primary supply and stockpiles. The biggest impact on the market was the dramatic increase in Russian deliveries, which resulted in a surplus of approximately 800 000 oz.

The cycle of substitution of palladium-based systems with platinum has probably ended, as the huge price gap between the two metals has rendered the switch uneconomic. Usage for 2003, at just over 4.3 Moz was at a five-year low.

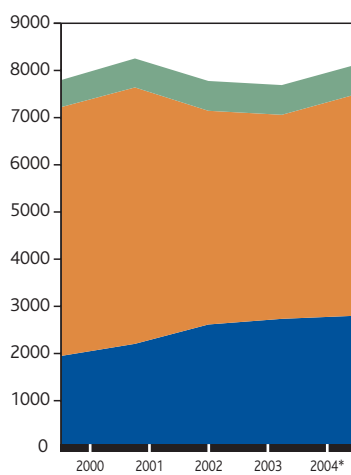
Consumption of palladium by the electronics industry fell by 13% to 850 000 oz, despite an almost 20% increase in the growth of multi-layer ceramic capacitors. This was due to a combination of miniaturization, thrifting and displacement by base metals.



**Free market rhodium price**  
(\$/oz) (monthly average)



**Free market nickel price**  
(\$/t) (monthly average)



**Automotive demand – metal**  
(000oz)

■ Platinum      ■ Palladium  
■ Rhodium

\* estimate

#### Palladium supply and demand

Calendar years (000 oz)	2004*	2003	2002	2001	2000
<b>Demand</b>					
Automobile	4 690	4 325	4 530	5 435	5 275
Dental	870	835	785	720	820
Electronics	865	850	980	1 275	2 160
Other	605	585	605	550	570
<b>Demand</b>	<b>7 030</b>	<b>6 595</b>	<b>6 900</b>	<b>7 980</b>	<b>8 825</b>
<b>Supply</b>					
South Africa	2 425	2 250	2 175	1 985	1 830
Russia	2 700	3 400	1 900	4 500	5 200
Other	1 860	1 300	2 680	2 140	935
Recycling	520	450	390	340	280
<b>Supply</b>	<b>7 505</b>	<b>7 400</b>	<b>7 145</b>	<b>8 965</b>	<b>8 245</b>
<b>Surplus/(Deficit)</b>	<b>475</b>	<b>805</b>	<b>245</b>	<b>985</b>	<b>(580)</b>

\* Estimate

#### Rhodium

Rhodium demand was essentially unchanged during 2003 due to the shift from petrol to diesel vehicles. An increase in Russian supplies during the year led the market to a surplus of some 60 000 oz, resulting in the low prices achieved.

#### Nickel

Nickel had a spectacular year in 2003 with the price starting from just above \$8 000/t and rising to a high of over \$17 500/t in January 2004.

This growth was on the back of a deficit in the physical market due to huge global demand led by China, and tight supply as a result of the Inco strike. Prices cooled down subsequently on attempts by the Chinese authorities to slow their economy.

#### Market prospects

Currently, all indications are that the automotive industry will be the major driver of platinum demand in the medium to longer term. A significant portion of this future demand will come from both light-duty and heavy-duty diesel emission control technologies that are dominated by platinum formulations.

Supported by jewellery demand, the market is forecast to remain in equilibrium which in turn will be supportive of a firm pricing regime.

A combination of rekindled automotive demand together with new applications in a more stable price environment should boost palladium demand in the longer term. In the case of rhodium, stricter emission control legislation will continue to drive demand in the future.

#### Rhodium supply and demand

Calendar years (000 oz)	2004*	2003	2002	2001	2000
<b>Demand</b>					
Automobile	628	630	632	614	574
Other	93	90	92	101	98
<b>Demand</b>	<b>721</b>	<b>720</b>	<b>724</b>	<b>715</b>	<b>672</b>
<b>Supply</b>					
South Africa	557	523	505	455	414
Russia	80	120	90	125	290
Other	37	26	28	22	19
Recycling	127	115	107	98	90
<b>Supply</b>	<b>801</b>	<b>784</b>	<b>730</b>	<b>700</b>	<b>813</b>
<b>Surplus/(Deficit)</b>	<b>80</b>	<b>64</b>	<b>6</b>	<b>(15)</b>	<b>141</b>

\* Estimate