

PRICES & FUTURES MARKETS

PLATINUM

The depreciating US dollar drew increased levels of speculative investment into most commodities in 2004, including precious and base metals. With platinum supplies closely matching demand, this flow of fund money was the primary influence on the price. This was especially so during the first seven months of the year when platinum moved in a \$170 range between \$767 and \$937 on the London fixings. Physical purchases from the more price-sensitive jewellery markets, particularly China, were adversely affected as a result.

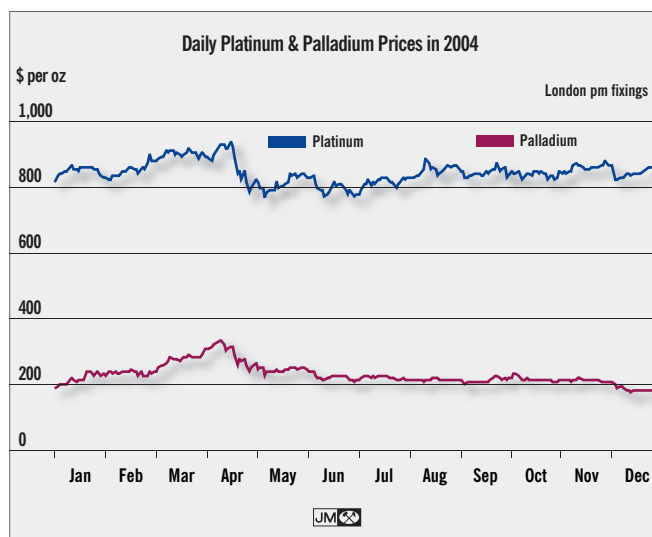
From mid-August onwards the trading range narrowed, platinum fluctuating between \$820 and \$880 for most of the remainder of the year. Increased demand for physical metal provided support when the price dropped towards the lower end of the range, whilst fund profit-taking tended to cap rallies towards the upper end.

The platinum price opened **January** 2004 at \$815 and soon started to climb, as Chinese jewellery manufacturers began purchasing substantial volumes of platinum ahead of the lunar New Year holiday. In addition, funds that had liquidated long futures positions at the end of 2003 became net buyers again on the NYMEX and TOCOM exchanges. As a result, the platinum price surged to \$868 on the 13th. The pressure then eased as the speculative buying slowed, and when investors took profits towards the end of the month platinum slipped to \$829.

A slide in the value of the US dollar during **February** encouraged renewed fund investment in platinum and

the price climbed to reach \$864 on the 18th. In Japan, yen weakness then encouraged further heavy buying of platinum futures on TOCOM (and a subsequent squeeze of short positions) that propelled another surge in the price, the metal ending February with a fixing of \$877.

The platinum price continued to rally into **March**, hitting \$900 on the afternoon of the 1st in London as funds made substantial



additions to their long futures positions. The speculative buying, particularly via the Tokyo exchange, sustained the price in the region of \$900 throughout much of March and into **April**. As the rally gathered momentum, funds investing on the basis of technical indicators continued to increase their exposure. Physical demand from end users, however, contracted. The escalation in the platinum price culminated with a fixing of \$937 on the 19th of April, a 24-year high.

A subsequent increase in the strength of the dollar on the back of growing expectations of a rise in US interest rates encouraged a sudden and intense round of long liquidation by funds across a range of commodities. The platinum price plunged by more than \$150 in the space of ten days to fix at \$783 on the 29th April. This drop resulted in a marked upturn in purchasing by Chinese jewellery manufacturers ahead of the May Day national holiday and this briefly steadied the price.

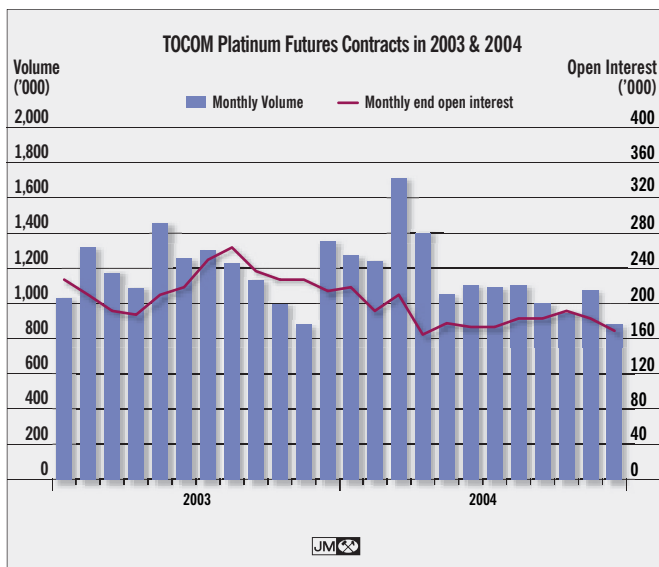
The relationship between the US dollar and other currencies, particularly the yen, continued to influence the actions of funds and other investors during **May**. Dollar strength during the early part of the month extended the long liquidation that had begun during the second half of April, and with most Chinese buyers absent from the market the platinum price slid to \$767 on the 10th – a five-month low. However, when the dollar weakened again, investor buying in Japan accelerated once more, leading to a sharp rally in platinum that reached \$845 on the 27th.

Average PGM Prices in \$ per oz

	2003	2004	Change
Platinum	691.86	845.75	22%
Palladium	200.61	230.03	15%
Rhodium	530.27	981.73	85%
Iridium	93.07	186.32	100%
Ruthenium	35.04	64.68	85%

Platinum and palladium prices are averages of London am and pm fixings. Other pgm prices are averages of Johnson Matthey European base prices





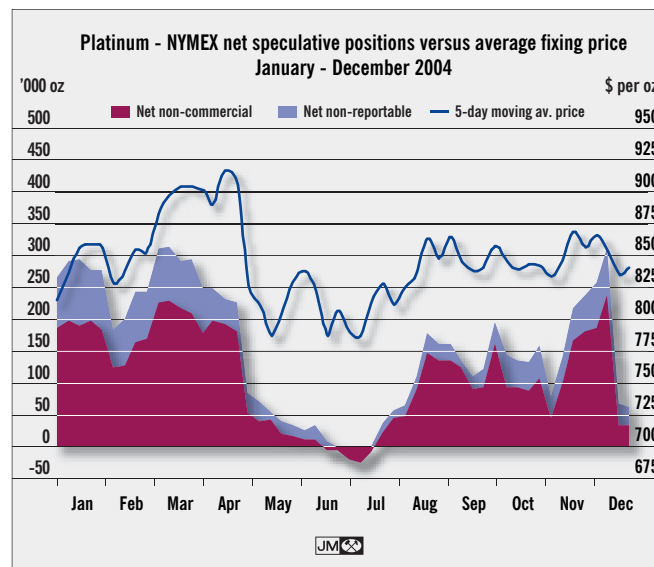
The volume of platinum contracts traded on TOCOM peaked in March 2004 as fund investment pushed the price above \$900.

June was marked by another round of fund long liquidation of platinum futures on both TOCOM and NYMEX, again in response to a strengthening of the dollar against other major currencies. This dragged the platinum spot price down to a low of \$774 on the 15th and investor sentiment remained predominantly bearish for the remainder of the month, the net speculative position on NYMEX entering negative territory for the first time since November 2001.

Support for the price, however, emerged at around \$780 in the form of physical demand, with steady purchasing from both the jewellery trade and a number of industrial sectors.

During July the price of platinum climbed back over \$800, with the strength of the South African rand increasing concerns over the economic viability of planned mine expansions. By the 12th the price had risen to \$824 on the back of renewed fund investment and by mid-month the net speculative short position that had accumulated on NYMEX during late June had been reversed as the rand moved under \$1=R6. Japanese investors also switched an increasing proportion of their funds into commodities on TOCOM as the price of oil soared and the Tokyo equities market fell. The platinum price consequently hit \$836 on the 20th before easing back to \$818 at the month's end.

The rally in the price of platinum accelerated in August as speculative long positions on both NYMEX and TOCOM continued to rise. Investors reacted to the increasing possibility that mine workers in South Africa



would strike, setting aside the longer-term positive implications for platinum supply of a sharp weakening of the rand versus the dollar. The platinum price surged from an opening fixing of \$827 to a peak of \$885 on the 16th. After briefly falling back under \$850 platinum ended the month firmly at \$864.

September was initially marked by a speculative sell-off in platinum, gold and silver as funds took profits. After touching \$873 on the 2nd, platinum slid rapidly to \$827 on the 9th. The drop in the price again sparked an upturn in orders for physical metal from industrial and jewellery end users and platinum recovered to trade either side of \$840 until the 20th.

Disruption to pgm production in South Africa then sparked another price rally: a fire at Northam's mine was followed by the announcement of wage disputes at Anglo Platinum and Impala Platinum. With the rand also resuming its appreciation versus the dollar, investors and funds renewed their buying of platinum futures. This propelled the price up to \$875 on the 28th, before profit-taking saw platinum soften to end September at \$854.

With mine workers on strike at both Anglo Platinum and Impala operations, platinum began October strongly with a fixing of \$863. However, on the 4th the price dropped by more than \$30 as funds rapidly closed out long positions, ending the day at \$827 bid in New York. The spark for the sell-off appeared to be technical in nature: the spot price slipped below its 200-day moving average, a move that initiated sell

Speculative buying of platinum on NYMEX by hedge funds (non-commercial) and managed futures funds (non-reportable) had a major bearing on the price in 2004.

orders from funds trading on technical indicators. The selling was reflected in a large decline in the net long position held by speculators on NYMEX, which fell by more than 25 per cent to 145,000 oz.

The remainder of the month was marked by considerable volatility, the price fluctuating between \$820 and \$860 in response to the ebb and flow of fund investment. The value of the dollar, combined with price trends in other commodities (especially gold and oil), were the main influences on the platinum price, with support at the lower end of the range provided by increased demand for metal from Chinese buyers. The price hit a low for the month of \$821.50 on the 28th, reflecting fund liquidation across the oil and metals markets, but then recovered to \$835 the following day.

From early **November** onwards increasing US dollar weakness spurred investors to rebuild long positions in precious and base metals. The platinum price moved above \$850 on the afternoon of the 4th and by the 12th had passed \$871. In contrast to the futures activity, demand for metal from the Chinese jewellery sector became subdued as the platinum price climbed. The rally peaked at \$878 on the 15th, at which point profit-taking by investors in Japan began to outweigh further steady accumulation of long positions by funds in the USA. Falling short term lease rates, which slipped under 5 per cent, also helped to cap the rally in the spot price. Nevertheless, platinum ended the month well supported at \$867, the net speculative position on NYMEX having exceeded 250,000 oz for the first time

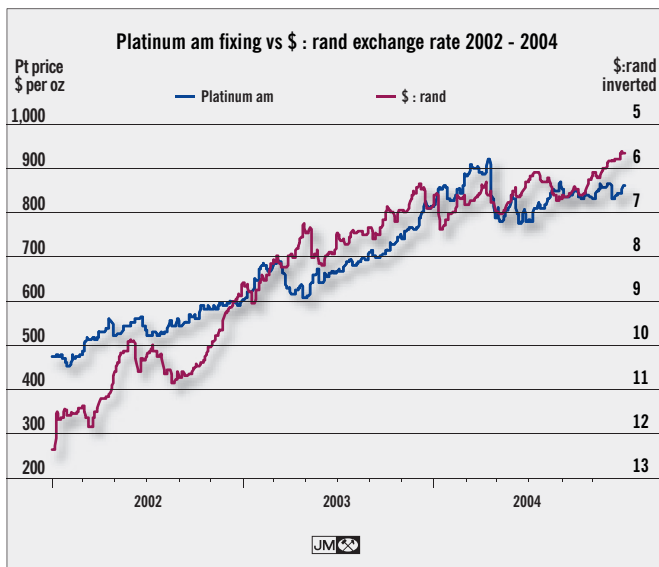
The strengthening of the rand versus the dollar has been a key influence on the platinum price since 2002

since March.

The fund buying continued into early **December** on the back of ongoing US dollar weakness and the strength of the South African rand, which reached a 6-year high of \$1=R5.65. This lifted the platinum price to a peak of \$884 on the 2nd. However, when the dollar staged a sudden recovery on the 8th funds began swiftly liquidating long positions across the metals markets. As a result the platinum price slumped to \$822, a drop of \$50 from the previous day's close in New York. Over the next few days increased demand from end users and renewed fund buying then helped platinum recover to \$840, and the metal traded near to this level through to the 23rd. The Christmas period then saw a sharp run up in the price in very thin trade. The price jumped to reach \$868 by the close of trading in New York on the 28th as the dollar weakened once more, before ending 2004 firmly with a fixing of \$861 on the 31st.

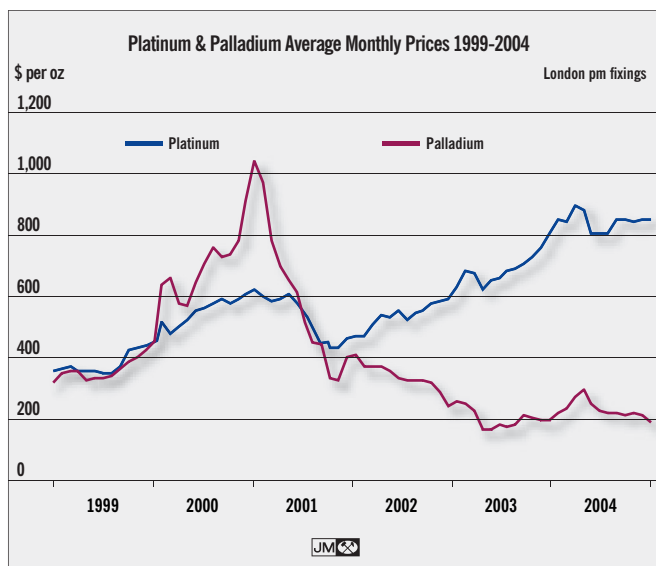
In dollar terms, the price of platinum appreciated by 5.6 per cent over the course of the year, rising from \$815 to \$861. However, much of the dollar price strength of platinum was due the depreciation of the US currency. In yen terms the price of platinum ended the year little changed, in euros platinum fell by almost 3 per cent. The impact of exchange rate movements was more pronounced for South African pgm producers: the price of platinum in rand dropped by almost 10 per cent from around R5,400 per oz at the start of January to R4,880 at the end of December.

	High	Low	Average
January	868.00	815.00	851.32
February	877.00	822.00	846.21
March	923.00	878.00	899.54
April	937.00	783.00	880.43
May	845.00	767.00	809.43
June	844.00	774.00	807.35
July	836.00	776.00	809.33
August	885.00	824.00	847.39
September	875.00	827.00	847.90
October	863.00	821.50	842.82
November	878.00	826.00	854.30
December	884.00	822.00	849.34



PALLADIUM

The price of palladium climbed from an opening fixing of \$194 to over \$240 during the first three weeks of 2004, the momentum being provided by fund buying of substantial volumes of palladium derivatives. The rally accelerated in March, supported by a surge in Chinese purchases of metal for jewellery manufacture, and peaked with a fixing of \$333 on the 13th of April. However, with plenty of metal available to cover both speculative and end



user demand, the price collapsed when funds started taking profits. Palladium dropped below \$240 before the end of April, touched \$230 in May, and fell beneath \$220 in June.

Volatility in the palladium market reduced considerably during the second half of the year. A trading range of just over \$140 in the first half narrowed to less than \$30 from July to the end of November, the metal trading between \$205 and \$235 for almost the entire period despite renewed fund buying. The end of the year was marked by further weakness in the palladium price – a reaction to another round of speculative profit-taking and substantial offers of metal on the London fixings. Palladium slid below \$200 during the second week of December and ended the year at \$184.

The palladium market began 2004 positively as fund buying lifting the price from an opening fixing of \$194 to \$201 on the 6th of January. This buying accelerated quickly the following week, with a substantial number of new long futures positions opened on NYMEX and relatively large volumes of metal traded across the fixings in London. The price jumped from around \$200 on the morning of the 12th to over \$220 by the close of trading in New York the following day.

Good offers of metal then held the price in check until the 21st, when speculative buying succeeded in pushing the price up to \$230. The rally reached \$242 on the 22nd, before the buying slowed and the price dropped back to end January at \$230.

Funds continued to add to their net long positions in palladium during February, both via the NYMEX and TOCOM futures markets and through over-the-counter deals involving derivatives and physical metal. Despite this, offers on the spot market (believed to have been largely of Russian metal) were sufficient to restrain the palladium price: a slow climb up from \$230 to \$246 was followed by a slide back to \$230.

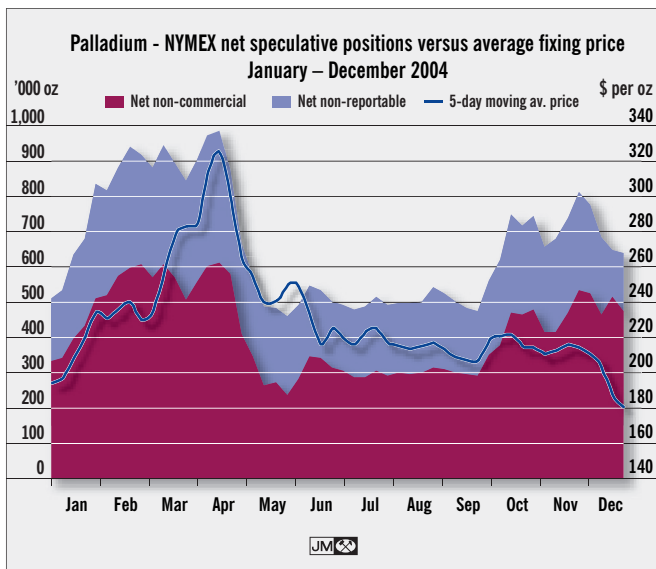
The fund buying of palladium persisted throughout March and into early April, and was complemented by a surge in demand for physical metal from Chinese jewellery manufacturers. As a result the price soared from \$235 on the 1st of March to reach a peak fixing of \$333 on the 13th of April. By that time the net speculative long position on NYMEX alone had grown to the equivalent of almost 990,000 oz, up from a little over 500,000 oz at the start of the year. The speculative buying was stimulated in part by an announcement that a diesel autocatalyst containing palladium had been developed. However, the rally was extremely short-lived; when funds started taking profits across almost the entire spectrum of precious and base metals the price of palladium slumped, falling under \$240 on the 29th of April.

After a brief rebound to \$265 on the 4th of May, the palladium price fell further as funds continued to close out their long positions. With demand for metal from the Chinese jewellery industry also decreasing from the high levels seen in April, the palladium price dropped to \$229 on the 10th, mirroring the falling platinum and gold markets. When the rate of fund selling eased the palladium price bottomed out and volatility dropped; the metal subsequently fluctuated between \$230 and \$255 for the remainder of the month. By that stage the net speculative long position on NYMEX had been cut to less than 460,000 oz, a reduction of over 500,000 oz in just six weeks.

The price of palladium continued to follow platinum downwards during the first half of June, sliding from \$250 at the opening fixing to a low of \$215.50 on the 15th. From then on trading was slow, both for physical metal in the spot market

Palladium Prices in 2004			
London am and pm fixings, \$ per oz			
	High	Low	Average
January	246.00	192.00	216.27
February	246.00	223.00	235.04
March	288.00	235.00	268.99
April	333.00	237.00	295.46
May	265.00	229.00	246.03
June	252.00	215.50	228.93
July	228.00	209.00	220.37
August	223.00	211.00	215.51
September	224.00	204.50	211.35
October	234.00	212.00	218.18
November	220.00	209.00	213.83
December	211.00	178.00	191.95

Source: JMC



and on the futures exchanges. The price struggled back upwards to \$230 on the 21st but then softened again, ending June at \$217.

Palladium made small gains in mid-**July**, once more responding to rallies in the platinum and gold prices. However, after reaching a high of \$228 on the 20th it subsided to \$216 at the month end, in line with good availability, uninspiring physical demand and modest fund selling on NYMEX.

The palladium market remained dull throughout **August** and into **September**. There was no fundamental news of note to move the market; supply remained ample to meet physical demand; and there was little movement in fund positions on the New York and Tokyo futures markets.

The price held close to \$220 for the duration of August before slipping to a low of \$204.50 in early September. An upturn in fund interest was seen later in the month, which was reflected in a rise in the net long position on NYMEX from around 475,000 oz to over 560,000 oz. This carried the palladium price up to \$224 on the 28th of September but the rally quickly evaporated, the metal ending the month at \$217.

After briefly slipping lower in early **October** (in line with platinum), palladium rallied steadily to a four-month high of \$234 on the 8th. US funds made substantial additions to their long positions, the net position on NYMEX rising by 185,000 oz in the two weeks to the 12th of October to total 747,000 oz. The price subsequently weakened when some investors

took profits, falling to a low of \$212 on the 13th before trading in a narrow range either side of \$215 for the remainder of the month

The palladium market was fairly listless in **November**, despite further substantial investment by funds and rallies in other precious and base metal markets. The price was anchored between \$210 and \$220 for almost the entire month as the fundamental imbalance between supply and demand countered another increase in the net speculative position on NYMEX to 812,000 oz.

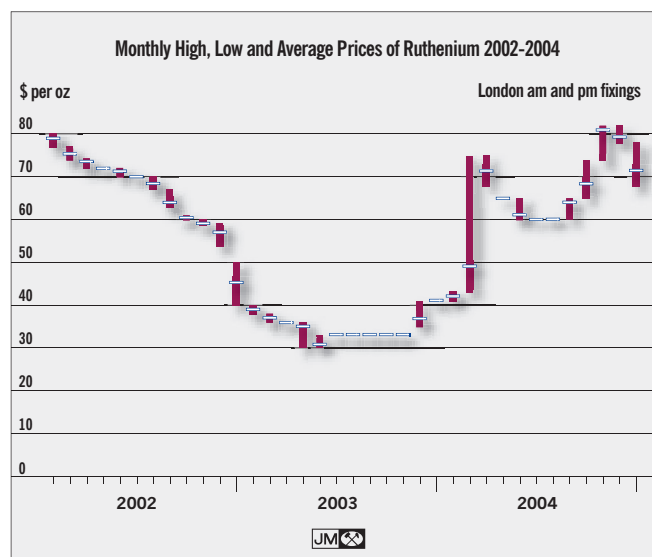
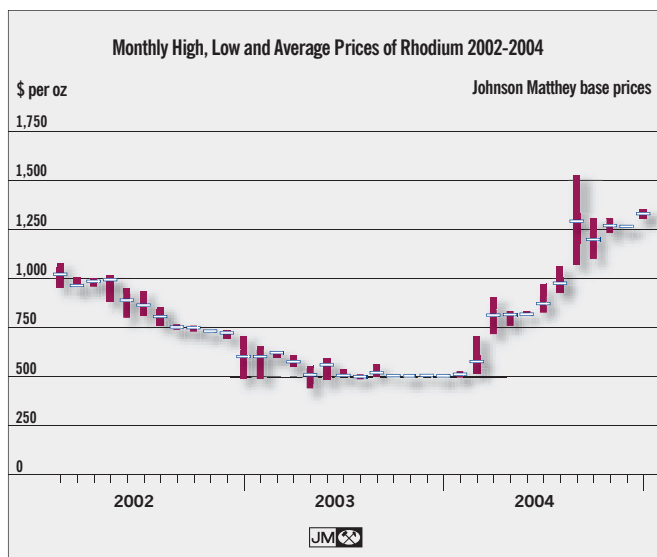
The speculative support that had kept the price of palladium above \$200 throughout the year finally gave way in early **December**. The market underwent a round of fund selling, in common with platinum, gold and base metals, and the volume of physical metal offered around the fixings in London increased noticeably. Imports of Russian palladium by Switzerland jumped in November and December and it seems likely that a significant proportion of this metal was sold across the fixings on behalf of either the Russian Treasury (Gokhran) or the Russian Central Bank.

The palladium price consequently dropped from around \$210 at the start of the month to under \$180 by the 16th. The closure and liquidation of the assets of a single US-based hedge fund that had specialised in commodities may have contributed to the fall. In contrast to platinum, the weak fundamentals for palladium meant that the price failed to recover significantly and the metal ended 2004 at \$184, exactly \$10 below the opening fixing of the year.

OTHER PGM

The prices of the minor metals were also influenced by speculative buying during 2004. Rhodium climbed from \$500 to \$900 between January and March; slipped back to trade either side of \$800 until the middle of the year; then began to rally again when metal was withdrawn from the leasing market. Rhodium reached \$1,525 in August in very thin trade before greater offers of spot metal resulted in the price easing back a little. Nevertheless, the market remained relatively firm, rhodium ending the year at \$1,330.

The price of iridium surged from \$87 to \$230



during the first quarter of 2004, whilst ruthenium jumped from \$41 to \$75. The price of both metals then lost ground, iridium falling back to \$170 and ruthenium to \$68.

The Johnson Matthey base price for rhodium began 2004 at \$500 and the metal traded near to that level throughout January, supply and demand being closely matched. From late February onwards, however, speculative buying came into the market and the price of rhodium began to climb rapidly, reaching \$900 in early March. Bids for increased volumes of metal from end users, concerned about the possibility of a large price spike, contributed to the rally.

The rise in price resulted in increased volumes of metal being offered and rhodium slipped back to trade between \$760 and \$840 until mid-June. The price then began moving upwards again as physical availability tightened, with less Russian metal in particular in evidence compared with 2003. By late July rhodium had risen above \$1,000 as speculators held back metal from the lending market, squeezing lease rates higher. Consequently, an increasing number of industrial end users sought to buy rather than borrow metal, accelerating the rise in the price.

The JM base price reached \$1,525 in early August, although very little physical metal changed hands at this level. The move in the price above \$1,500 saw greater offers of metal come into the market and lease rates and the spot price eased down. Rhodium slipped to \$1,100 in mid-September before firming again to

end the month at \$1,300. The price stabilised at this level until mid-October, when a modest increase in offers of spot metal began to put downward pressure on the market and the price dropped back to \$1,235. Rhodium moved up over \$1,300 once again in early November and then steadied to trade in a narrow band between \$1,300 and \$1,345 through to the end of the year.

The iridium and ruthenium markets were not exempt from speculative interest during the first quarter of 2004. After spending the whole of January at \$87, the JM iridium base price then surged to \$230 between early February and mid-March at a time when fund buying of precious and base metals was reaching a peak. The price then flattened out and iridium traded quietly either side of \$200 from May through to November, before slipping lower in December to end the year at \$170.

The price of ruthenium followed a similar course to that of iridium during the early part of 2004; after edging up from \$41 to \$43 during January, the price jumped to \$75 by the end of February as speculative bids came into the market.

Ruthenium then lost ground during March and settled into a \$60 to \$65 range from April through to mid-September. Renewed light speculative interest and firmer industrial off-take subsequently spurred another rally that peaked at \$82 in October, but in the face of good availability of metal the price eased again, ending December at \$68.