

PRICES & FUTURES MARKETS

PLATINUM

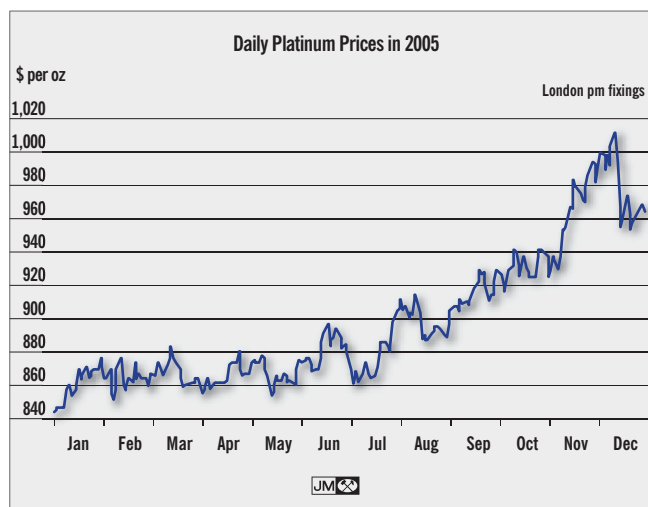
A sharp increase in the flow of investment and speculative capital into the platinum market during the second half of 2005 propelled the price to a 25-year high of \$1,012 in December. Similar patterns were seen in other metal markets, with gold, copper, zinc and aluminium all rising to multi-year peaks on the back of fund buying. This was partly a function of macro-economic factors (as reflected in US dollar and yen exchange rates) and the heightened interest in commodities as an asset class. However, it was also founded upon strong fundamentals, with supplies struggling to keep pace with growth in demand for several metals.

Platinum spent much of January through to June trading relatively quietly between \$860 and \$880. Good physical demand and steady fund buying provided support at the bottom of the range, whilst speculative selling tended to cap the market at or just above \$880. This continued a pattern of largely sideways trading dating back to August 2004.

The price broke through the resistance around the middle of the year, moving upwards in a succession of rallies that culminated in a sprint from \$925 in early November to a peak fixing of \$1,012 in December. Much of the impetus came from a substantial increase in fund and general public long positions on the Tokyo Commodities Exchange (TOCOM) as investors reacted to a significant weakening of the yen by moving cash into dollar-denominated commodities. However, the introduction in mid-December of extraordinary trading margins on TOCOM triggered a rush of

long liquidation. The price of platinum slumped to \$942 as a result before recovering somewhat to end 2005 with a fixing of \$964.

In early January 2005 the platinum price came under pressure from light fund selling in New York and Tokyo, slipping from around \$860 on the 3rd to a fixing of \$848 on the 4th when the London market opened. The price bottomed out at \$843



on the 5th and this proved to be the low point of the entire year. An upturn in demand for metal from Chinese jewellery manufacturers and other end users then provided support, and from mid-month onwards funds turned net buyers of commodities as the dollar weakened. The platinum price consequently rallied and ended January firmly at \$869.

A short-covering rally on TOCOM pushed the platinum price up to \$881 on the 1st of February but this was swiftly followed by fund selling as the dollar regained strength. With Chinese buyers absent due to the Lunar New Year holiday, platinum slid to \$847 on the 9th. The price then moved erratically for several weeks, reflecting fluctuations in the oil, gold and foreign exchange markets. Platinum regained the \$870 level on the 11th of February; fell back under \$860 the following week; then climbed to reach \$883 on the 16th of March as funds increased their long positions on both NYMEX and TOCOM. However, when the price of oil fell sharply and the dollar rebounded yet again, long liquidation forced precious metals prices downwards, platinum dropping to \$858 on the 23rd.

The fall below \$860 led to a substantial rise in purchasing by Chinese jewellery manufacturers. Funds, however, were content to maintain rather than increase their long positions in platinum and it traded in a narrow band either side of \$860 through to the 19th of April. The price then embarked on another brief rally, moving back up to \$880 on the 26th as renewed fund buying flowed through NYMEX. Once again, however, the price lost momentum above \$880 and subsequently fell back below \$870.

Platinum traded between \$860 and \$880 for much of the first six months of 2005; from July onwards speculative buying drove a strong rally that peaked at \$1,012 in December

Average PGM Prices in \$ per oz			
	2004	2005	Change
Platinum	845.75	897.02	6%
Palladium	230.03	201.47	-12%
Rhodium	981.73	2,056.18	109%
Ruthenium	64.68	74.59	15%
Iridium	186.32	169.49	-9%

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

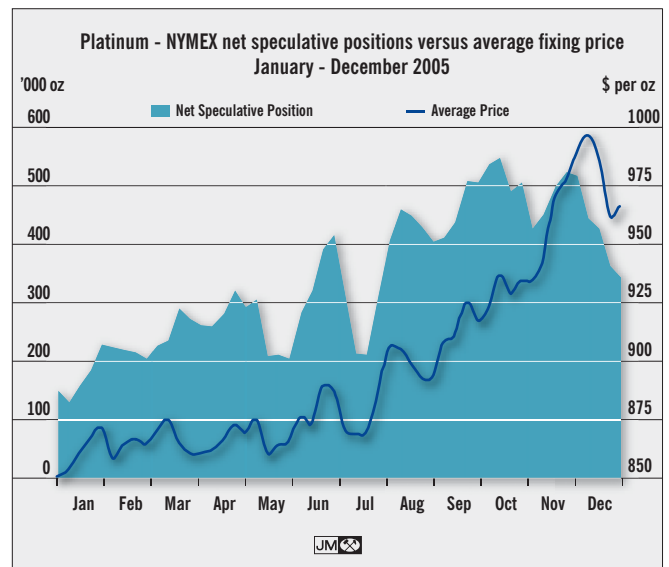
JMC

Funds had another go at pushing platinum convincingly above \$880 during the first half of **May**, but after fixing at \$881 on the 11th long liquidation and short selling capped the rally and platinum fell quickly, dropping to \$853 on the 16th. The repeated pattern of rallies breaking down around \$880 was suggestive of option-related selling, although on this occasion fund selling was also seen in the crude oil, gold and copper markets as the dollar strengthened markedly. As before, the fall in the platinum price below \$860 triggered an upturn in demand for metal from end users and the price stabilised, trading between \$855 and \$868 for the remainder of May.

During **June** increasing volumes of fund buying were seen in both the precious and base metal markets as the dollar reversed direction once more. The platinum price climbed to \$878 on the 7th, dipped back under \$870 over the course of the next few days, but then accelerated upwards from the 15th. This time the fund buying had sufficient vigour to drive the price through the previous level of resistance and platinum jumped to hit \$900 on the 20th. At that point the net long position on NYMEX had climbed to around 400,000 oz, almost doubling in the space of two weeks.

The price of platinum then subsided through the remainder of June and into **July** as investors took profits, the speculative position on NYMEX falling back as quickly as it had grown. The second half of July, however, saw another rally develop as speculative positions on the New York and Tokyo exchanges increased. The generally bullish sentiment in the platinum market was helped by news of wage disputes within the South African mining industry, by the rand strengthening against the dollar, and by the Chinese government's decision to revalue the renminbi. Platinum moved swiftly back above \$880 and offers had almost reached \$900 again by the close of business on the 29th.

The rally continued in early **August** as fund buying and short covering pushed the net speculative position on NYMEX up over 450,000 oz and the estimated position on TOCOM towards 400,000 oz. The platinum price surged in response, fixing at \$914 on the 4th then jumping to \$924 on the morning of the 12th. At that level very little physical trade was concluded and the price began to fall back later that day as funds started taking profits. By the 16th platinum had dropped to



\$887 and it then fluctuated between \$887 and \$897 through to the end of the month.

Over the first two days of **September**, the after-effects of Hurricane Katrina caused oil prices to jump to almost \$70 per barrel and the dollar to weaken sharply. This triggered increased speculative buying across the precious metals markets, gold climbing above \$445, silver pushing over \$7.00 and platinum striding back over \$900 to fix at \$909 on the 2nd. The price remained well supported above \$900 by on-going fund buying for the next few days before advancing to a new high for the year of \$930 on the 20th, tracking a very strong rally in gold. Both metals then eased off the highs as the dollar recovered some ground but then firmed again towards the end of the month, platinum fixing at \$929 and gold setting a new 17-year high of \$473.40 on the 30th.

Platinum began **October** by drifting down to \$914 on the 5th; Chinese buyers were absent due to the National Day holiday and interest from other end users was subdued. From then on, however, speculative interest began to pick up again and the price rebounded to reach \$941 on the 11th as the net fund position on NYMEX neared 550,000 oz.

After softening to \$920 on the 20th on profit-taking, renewed speculative buying on TOCOM was responsible for propelling the price up to \$944 on the morning of the 27th – the highest fixing for almost 25 years. On NYMEX, however, funds began unwinding long positions and the price subsequently dropped

The net fund long position on NYMEX climbed over 500,000 oz during the second half of 2005. This, plus a sharp rise in speculative long positions on TOCOM, pushed the price upwards.

to \$924 on the 1st of **November**. Not surprisingly, the correction triggered an increase in orders of metal from end users, with good volumes being traded across the Shanghai Gold Exchange.

The rest of November saw a dramatic rally develop in platinum, the price soaring by more than \$70 to peak just shy of \$1,000.

The acceleration in the price began in earnest on the 9th, the furthest dated contract on TOCOM rising sharply on speculative buying and short-covering, and the morning fixing in London settling at \$955, up from \$937 the previous afternoon. The market then steadied for a couple of days before jumping to \$969 on the 14th, then to \$983 on the 16th. After another pause the price made a final run higher, peaking at \$997 on the morning of the 28th. At that point funds and investors held net long positions in excess of 500,000 oz on both TOCOM and NYMEX.

The flood of speculative buying by Japanese based funds and investors on TOCOM was a result of a substantial fall in the value of the yen, which sparked a movement of cash into dollar denominated assets. However, the rise in the platinum price also reflected the overall bullishness of sentiment towards all the precious metals, with investor buying propelling the gold price rapidly towards \$500 and driving silver well above \$8.00.

After a brief reversal to \$979 on the 30th on fund profit-taking, platinum turned upwards again in early **December** as the yen continued its downward track against the dollar. As Japanese investors resumed

buying on TOCOM, platinum was quickly pushed over the \$1,000 mark, fixing at \$1,001 on the 2nd. US based funds, however, continued to unwind long positions and this selling capped the market for several days.

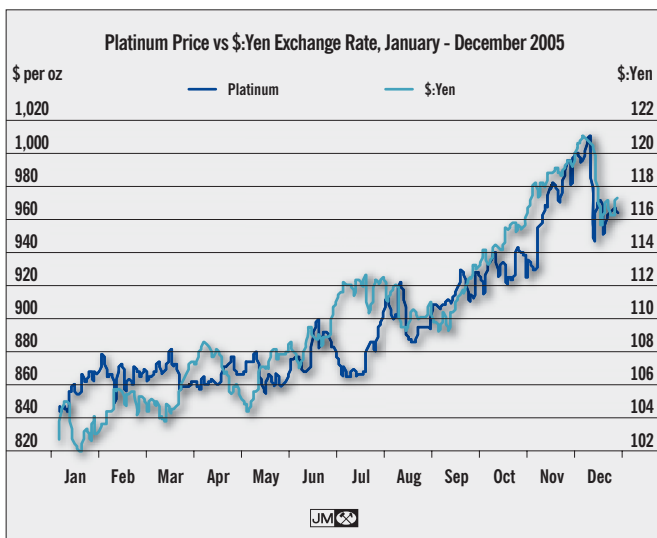
The market moved higher again from the 9th and peaked with fixings of \$1,011 and \$1,012 in London on the 12th following further very strong sessions on TOCOM. At that point the net long position held by funds and private investors on the Tokyo exchange was estimated to be in the region of 850-900,000 oz.

However, after the close of trading on the 12th the Precious Metals Management Committee of TOCOM announced that, in light of the high levels of open interest and volatility, extraordinary margins would be introduced for both platinum and gold. This resulted in a scramble by Japanese investors to liquidate long positions when trading began on the 13th, in turn causing the price of both metals to drop sharply. Platinum slumped to \$942 on the morning of the 15th, losing \$70 (7 per cent) in less than three days.

The price began to recover later that day, gaining support from buying by end users. By the 19th platinum had bounced back to fix at \$974 but then softened a little to trade either side of \$960 for the remainder of the month. The metal closed 2005 with a fixing of \$964, a gain of \$116 or almost 14 per cent over the opening fixing of the year.

Platinum Prices in 2005			
London am and pm fixings, \$ per oz			
	High	Low	Average
January	871.00	843.00	857.00
February	881.00	847.00	864.00
March	883.00	858.00	870.50
April	880.00	855.00	867.50
May	881.00	853.00	867.00
June	900.00	867.00	883.50
July	896.00	864.00	880.00
August	924.00	887.00	905.50
September	930.00	893.00	911.50
October	944.00	914.00	929.00
November	997.00	924.00	960.50
December	1,012.00	942.00	977.00

Foreign exchange markets exert a strong influence on metal prices; in 2005 a marked weakening of the yen spurred substantial Japanese investment in precious metals from September onwards.



PALLADIUM

Palladium broadly followed the direction of the other precious metals markets in 2005: a long period of trading within in a narrow range was followed by a strong rally towards the end of the year. During the fourth quarter speculative buying was able to overcome the unfavourable fundamentals of palladium and propel the price from less than \$200 in October to a peak of \$297 in early December, before it eased back to end the year at \$253.

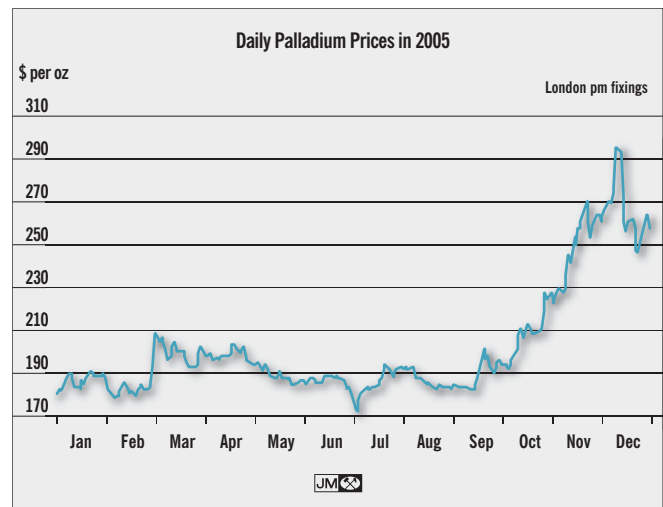
After having closed out a significant volume of long positions on NYMEX during the previous December, funds turned net buyers of palladium futures during **January** 2005. As a result, the palladium price moved up from an opening fixing of \$180 to \$192 on the 11th. Overall, however, the tone of the market was weak, with plenty of metal available to satisfy continuing demand from the Chinese jewellery sector. The price consequently slipped back to trade below \$190 for much of the rest of the month.

Palladium weakened further in early **February**, dropping to \$178 on the 8th as Chinese buying tailed off ahead of the New Year holiday and as the platinum and gold markets fell. From then on palladium traded quietly between \$179 and \$186 through to the 28th.

Strong speculative buying and short-covering of palladium positions on NYMEX at the beginning of **March** had the effect of propelling the price from \$182 on the 1st to \$208 on the 4th. The fund buying continued for the next two weeks, the net speculative position nearing 1 million oz by the 22nd, up from 714,000 oz at the start of the month. However, with increased offers of physical metal coming into the market the price was unable to make further gains and palladium ended March at \$198.50.

The surge of fund buying in March was followed by steady long liquidation on NYMEX throughout **April** and much of **May**. The price of palladium traded very quietly around the \$200 level until the final week of April. At that point the fund selling began to have an

impact and the price drifted down from \$202 on the 27th to reach \$185 by the end of May. By then the fund long position on NYMEX had been cut by almost half from the peak in March, falling to just over 500,000 oz. Given the scale of the fund long liquidation, the reaction of the price was relatively muted. This in part reflected good demand for metal from the Chinese jewellery sector, although there were also suggestions that substantial option positions below the market were generating support.



The palladium price traded in a narrow range either side of \$190 for the first nine months of 2005, before rallying strongly in line with the other precious metals during the fourth quarter.

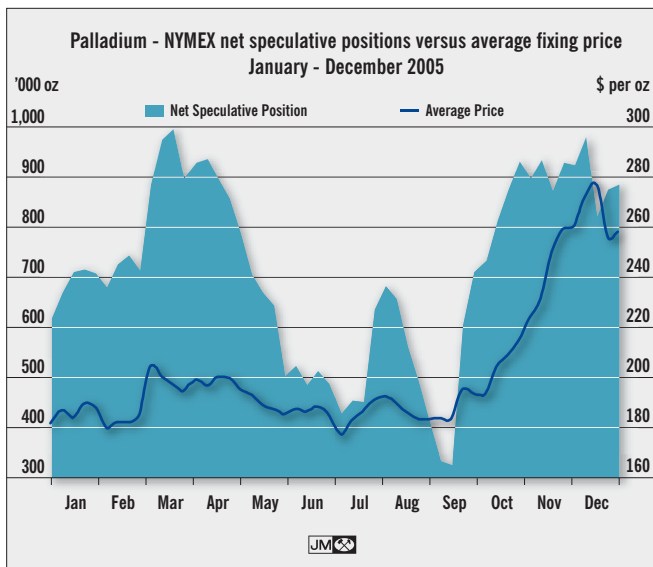
The palladium price settled into a new, narrow range in **June**, trading either side of \$185 for the duration of the month. The fund selling had largely abated and bids and offers for spot metal were well matched. **July**, however, saw activity pick up, initially in the form of fund long liquidation across the precious metal markets in reaction to the strengthening dollar. The price slipped below \$180 on the morning of the 4th, triggering stop-loss sell orders. The afternoon fixing was settled at \$173 and palladium edged down another dollar to \$172 the following morning – the lowest fixing for almost two years.

However, fund buying then re-emerged across the precious metals sector as the dollar changed direction and the palladium price staged a recovery. The speculative long position on NYMEX climbed from around 430,000 oz on the 5th to almost 640,000 oz on the 26th, with the price climbing back above \$190 as a result.

Palladium held above \$190 in early **August** on continuing speculative investment but as the month progressed significant new short positions were opened on NYMEX, which weighed on the price. By the 22nd palladium had drifted down to \$182 and remained close to that level through to the 31st. The spot market was quiet for the most part, with several days of very thin trade on the London fixings.

During the first half of **September**, palladium remained locked in a tight \$182-185 trading range, unaffected by rising gold and platinum prices. From around the 16th onwards, however, speculative sentiment towards the metal quickly became bullish.

Palladium Prices in 2005			
London am and pm fixings, \$ per oz			
	High	Low	Average
January	192.00	180.00	186.00
February	190.00	178.00	184.00
March	208.00	182.00	195.00
April	203.00	196.00	199.50
May	195.00	184.00	189.50
June	190.50	182.50	186.50
July	192.00	172.00	182.00
August	192.50	182.50	187.50
September	202.00	182.50	192.25
October	227.00	192.00	209.50
November	270.00	221.00	245.50
December	297.00	246.00	271.50



Fund buying on NYMEX failed to have much impact on the palladium price until the fourth quarter of 2005, when substantial speculative buying via over-the-counter deals was also seen.

Those funds that had opened new short positions during August were caught out as the market turned upwards, and as those positions were covered the price climbed back over \$200, palladium fixing at \$202 on the 20th. The price then softened as the platinum and gold markets fell but palladium held above \$190 and ended September at \$194.

Palladium continued to fluctuate between \$190 and \$200 throughout the first week of **October** but then rallied again from the 10th as further short covering was followed by a substantial increase in new long positions. The price climbed to \$213 on the 17th, edged back under \$210 for several days, then accelerated upwards towards the end of the month, reaching \$227 on the 27th. Fund activity on NYMEX remained the key driver behind the rally, the net speculative position increasing by 200,000 oz to 930,000 oz, but daily volumes on TOCOM also picked up as Japanese investors sought to hedge the effect of the weakening yen by buying dollar-denominated assets.

After a quiet start to **November** the rally in palladium accelerated again during the second week of the month, following other precious and base metal prices upwards. Fresh speculative buying, both on the New York and Tokyo futures exchanges and via over-the-counter transactions, propelled the price up to \$243 on the 10th, to \$260 by the close of trade on the 18th, and to \$268 on the 21st. Palladium ended November at \$258, still strongly supported by fund interest. At that stage the net speculative long position on NYMEX was

just over 920,000 oz, whilst the equivalent position on TOCOM had climbed to around 250,000 oz, up from an estimated 175,000 oz at the beginning of the month.

The rally became something of a spike during **December**: palladium moved above \$270 on the 2nd as platinum pushed up to hit \$1,000, then after pausing for a week the price jumped by more than \$20 to fix in London at \$297 on the morning of the 9th. However, the market had moved well ahead of the fundamentals, there being plenty of metal available to cover demand from end users. Consequently, when long liquidation hit the precious metal markets between the 13th and 15th the correction in the palladium price was steep, the metal plunging to \$249. After slipping further to \$246 on the 22nd the price recovered a little, fixing at \$264 on the 28th in thin trade before softening to end 2005 at \$253. This represented a gain of 41 per cent (\$73) from the opening fixing of the year.

OTHER PGM

The price of rhodium appreciated substantially in 2005, rising from \$1,330 in January to a peak of \$3,100 in November – a 14-year high. This marked the continuation of a rally that began in early 2004, when rhodium was trading at around \$500.

The performance of the price was primarily a function of the declining availability of metal. This in turn was a result of growth in supplies of rhodium being insufficient to meet strong demand from the auto, glass and chemical sectors. There was a notable drop in the volume of Russian rhodium offered, suggesting that state-owned stocks had been depleted. The tightness of the market was exacerbated by speculative buying and by the preference of some of these longs to hold rather than lend metal.

After an initial period of weakness, the prices of ruthenium and iridium were also pushed higher by strengthening industrial demand, ruthenium climbing from a low of \$55 to \$87 and iridium rising from \$145 to \$195.

The rhodium market was quiet in early January 2005, the Johnson Matthey base price holding steady at \$1,330. On the 11th, however, the price began moving upwards in response to tightness in the lending market. As short term lease rates climbed above 20

per cent some industrial users sought to buy rhodium and close out leases. With speculators competing for the limited volumes of metal on offer, the Johnson Matthey base price strengthened to \$1,500 by the 21st and had reached \$1,665 by the middle of February.

The availability of metal then improved and the price fell back to trade between \$1,500 and \$1,600 all the way through to the end of May. Good physical demand, including some forward buying by the auto industry, provided solid support at the lower end of the price range.

In June demand began to outweigh the amount of rhodium on offer once again. As the price began to move up out of its previous range, the scramble to cover near-term requirements intensified. With forward buying contributing to the pressure the price climbed above \$2,000.

The market then quietened down, briefly dipping to \$1,850 before trading between \$2,000 and \$2,150 from mid-July to the end of August. However, when more buyers returned to the market in early September the price gained renewed upwards momentum. With very few offers of any significant size to be found, and with speculators competing with end users for metal, the JM base price climbed rapidly: rhodium touched \$2,500 on the 16th, reached \$2,700 by the end of the month, and hit \$3,000 on the 7th of October.

The move to \$3,000 drew out some speculative profit-taking and the price fell back to \$2,600 but the respite for consumers of metal was brief. By early November rhodium was moving higher again, reaching \$3,100 on the 17th and trading either side of \$3,000 for the remainder of the year.

The ruthenium market began 2005 weakly: the JM base price slid from \$68 in January to \$55 by the middle of February as offers of metal outweighed buying interest. However, good industrial demand emerged from March onwards, particularly from the electronics sector. As a result the price moved steadily upwards, reaching \$85 in late July. The price held that level all the way through to December before ticking up to end the year at \$87. The iridium market followed a similar path, the price edged down from \$170 at the start of the year to \$145 in February but then climbed from early April onwards as demand strengthened. The JM base price climbed to \$175 in July, \$185 in September, and hit \$195 in December.

