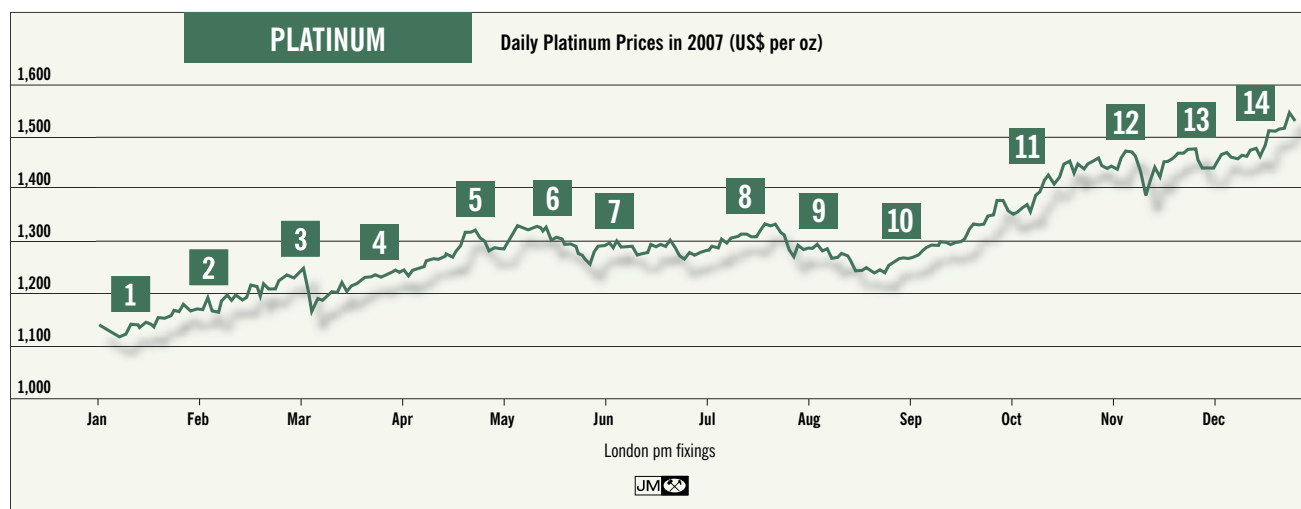


# PRICES & FUTURES MARKETS



The platinum price hit a series of record highs throughout the year, driven by currency movements, investors and a tight supply-demand balance.

**Platinum reached its highest ever average price in 2007, \$1,304, 14.2 per cent higher than the \$1,142 average for 2006. The price climbed early on and remained at elevated levels for the first eight months of the year. However, in September, concerns over South African production ignited a strong price rise. Platinum moved relentlessly higher and hit a series of all-time highs before reaching a new record of \$1,544 in late-December.**

A weak dollar, a buoyant gold price and a succession of problems relating to global platinum supply created a bullish price environment. Platinum responded by adding \$393 from its first fix of 2007 (\$1,136) to a final fix of \$1,529, gaining some 34.6 per cent during the year.

**1** Platinum started the year at \$1,136 and softened to \$1,112, the year's low point, on the 8th of **January** amidst quiet trading conditions. The price immediately

rebounded on market news that lengthy delays in the implementation of new precious metal export regulations had interrupted Russian exports of platinum.

**2** Strong Chinese physical demand ahead of the Chinese New Year applied upward pressure to the price. Lonmin also announced that it had closed its No.1 furnace at Marikana for

a rebuild (due to a matte leak). This was to be only the first of many supply-side problems throughout 2007 and the news drove the price higher. The first strike of the year by mineworkers in South Africa, at Modikwa, helped the price climb to a month-end \$1,169.

The steady price rise continued into **February** – platinum gained 4.7 per cent during the month. A rising gold price provided support. However, more supply concerns emerged too: Northam announced poorer-than-expected production results; Lonmin revealed that its smelter rebuild would take longer than previously thought; and there was a short-lived strike at the Impala Lease Area.


Short-covering in New York took the gold price to a seven-month high on the 8th and platinum moved higher too, reaching \$1,200 for the first time in 2007 on the 9th. Futures buying on TOCOM provided support until the Shanghai Gold Exchange reopened after the Chinese New Year at the end of the month. Good physical purchasing there helped platinum end February just below its monthly peak, at \$1,239.

**3** In early **March**, problems started to emerge from the US sub-prime mortgage sector. With the American economy apparently slowing, mortgage defaults had been rising, exposing a large number of international financial institutions to very significant, and unknown, losses. As investors started to realise this fact, global equity markets fell heavily. Fund sales forced gold below \$650 on the 2nd and platinum lost \$45 in one day, falling to \$1,203.

The dollar then strengthened and applied further

Average PGM Prices in \$ per oz			
	2006	2007	Change
Platinum	1,141.85	1,303.70	14%
Palladium	320.35	354.85	11%
Rhodium	4,551.60	6,190.55	36%
Ruthenium	193.40	579.60	200%
Iridium	348.85	446.95	28%

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



downward pressure on commodity prices, taking platinum to a monthly low of \$1,165 on the 5th. Physical buying – in Shanghai and in London – reappeared on this weakness and forced the price to rebound. Tightness in the availability of platinum sponge (much had been converted into ingot following the November 2006 price spike) added some momentum. Platinum bounced back over \$1,200 in late trading in New York on the 8th. It did not fall back below this level for the remainder of the year.

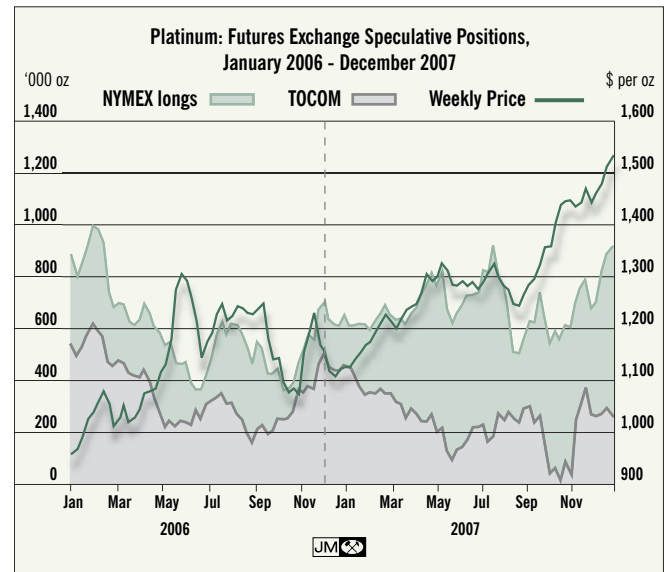
**4** Equities started rising once more in mid-March and platinum followed, with forward purchasing being seen. Short-covering in gold and a weakening US Dollar provided another fillip. The oil price climbed too, approaching \$60 per barrel in late March. Platinum rested briefly between \$1,240 and \$1,250 at the end of the month, having recovered all of its earlier losses.

The price moved up to \$1,251 before Easter in thin trading conditions. Buying on TOCOM, followed by dollar weakness, led to platinum fixing at \$1,269 on the 13th of **April**. Rumours had also been circulating of the imminent launch of an exchange traded fund (ETF) in platinum. These came to fruition that day as the Zürcher Kantonalbank (ZKB) announced that it would launch such a fund. However, some pressure was released as Norilsk Nickel revealed that it was meeting its platinum supply commitments despite continued problems in exporting metal from Russia.

Platinum Prices in 2007 London am and pm fixings, \$ per oz			
	High	Low	Average
January	1,180.00	1,112.00	1,147.85
February	1,253.00	1,165.00	1,205.00
March	1,248.00	1,165.00	1,219.00
April	1,325.00	1,235.00	1,278.35
May	1,336.00	1,257.00	1,302.35
June	1,302.00	1,266.00	1,286.75
July	1,333.00	1,270.00	1,303.65
August	1,296.00	1,237.00	1,264.40
September	1,377.00	1,268.00	1,307.30
October	1,462.00	1,352.00	1,410.10
November	1,484.00	1,389.00	1,448.75
December	1,544.00	1,450.00	1,486.20
Annual	1,544.00	1,112.00	1,303.70

**5** NYMEX net long speculative positions rose in response to the impending ETF launch, climbing 77,000 oz in only one week. However, the price did not move higher. On the 19th, though, ETF Securities announced the launch of a second platinum ETF. This time, the platinum price did respond, climbing above \$1,300. Tightening lease rates and heavy physical purchasing of metal in Shanghai pulled platinum higher and it shot to a monthly peak of \$1,325 on the 24th as the first fund started trading.

Lonmin restarted its No. 1



furnace and Norilsk revealed that it was now able to resume platinum exports. Slow ETF trading and a dollar-driven fund sell-off of precious metals came at the same time. The price dropped back 3.0 per cent to fix at \$1,286 at the end of April.

NYMEX long positions kept on growing in the first half of **May**, while many of the Asian markets were closed for Golden Week. When TOCOM trading reopened, platinum pushed past the 5,000 Yen per gram mark on the April 2008 contract. Strikes at several mines boosted the price too and platinum reached a monthly peak of \$1,336 twice, on the 9th and on the 14th.

**6** From here, platinum fell back. Limited amounts of physical purchasing provided some support to the price. However, an upward move in the dollar overcame this. As gold ETF positions were sold-off, the price of that metal fell, dragging platinum with it. TOCOM sales took its price to a low of \$1,257 on the 30th of May.

**7** Increasing tension over industrial relations in South Africa added some strength to the price at the start of **June**. In the middle of the month, Anglo Platinum closed its Rustenburg operations briefly to allow extra safety training. The price firmed somewhat unconvincingly but softened as the prospects of widespread strikes appeared to recede.

**8** However, the spectre of supply disruption remained and the price ground higher in **July**. Although there

*NYMEX and TOCOM positions show only a part of overall investment interest in platinum and palladium due to the launch of a number of ETFs in 2007.*

was little concrete information on the progress of the two-yearly wage negotiations, speculation in the market about potential disruption was supportive of the price. Anglo Platinum, Aquarius, Impala and Lonmin also released figures indicating likely reductions in annual output – due to a cocktail of safety issues, processing problems and labour relations challenges.

Platinum encountered resistance at \$1,300 in the spot market in New York ahead of US Independence Day. This was only a brief lull, though, and it sailed past this point in the October contract on NYMEX as soon as the market reopened.

The dollar weakened too, partly driven by problems in the sub-prime mortgage market, and oil prices neared \$75. Turkish troops massed near the Iraqi border on the 9th, increasing geopolitical tension and driving oil and gold prices higher. Platinum rose to a monthly high of \$1,333 on the 24th of July, slightly below its May peaks.

**9** Nissan issued a press release suggesting that it could reduce pgm loadings in its autocatalysts. This provided the opportunity for fund sales of platinum. These were followed by 100,000 oz of net purchasing on TOCOM on the 27th and 10,000 oz of metal changing hands on the Shanghai Gold Exchange on the 30th. Nonetheless, despite this drop at the end of the month, platinum did record its highest-ever monthly average price.

The fall continued into **August**, however. The sub-prime mortgage crisis deepened, driving equity prices lower. With these falling quickly, many funds sold-off some of their comparatively-liquid investments in commodities (including NYMEX positions). The agreement of wage deals between the South African mining unions and Impala and Northam were regarded as bearish signals for the price.

On the 9th, the European Central Bank moved to address the crisis in the banking sector by injecting funds into the banking system. This weakened the Euro against the US Dollar and drove precious metal prices down. Heavy Chinese physical purchasing slowed the fall and platinum reached its low point for August of \$1,237 on the 22nd.

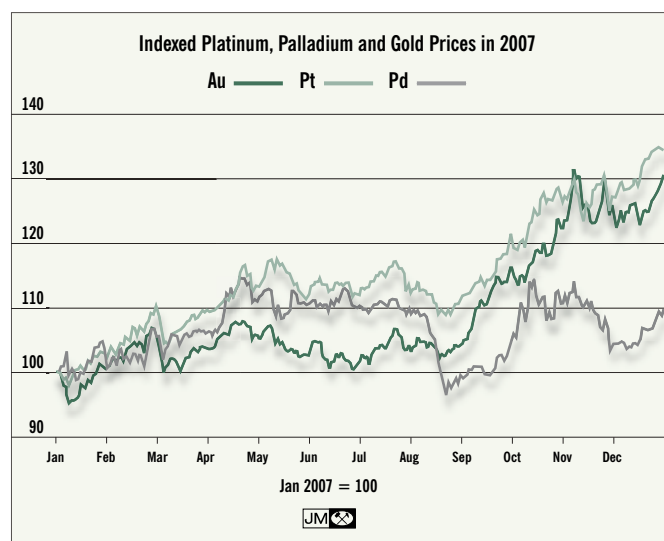
**10** Slowly, the selling pressure eased and the platinum price began to firm again. A weakening US Dollar once more supported the whole precious metal complex. Gold moved higher and platinum followed, with

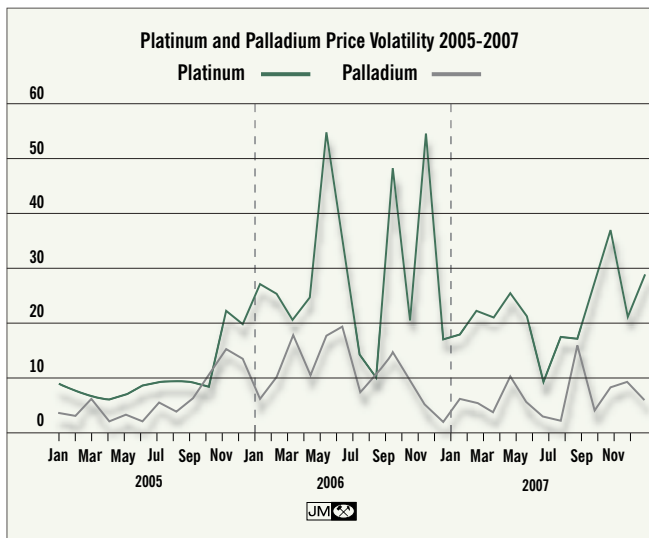
lease rates rising too. Fund buying of platinum futures on TOCOM on **September** 6th was followed by gold moving over \$700 later that day. Growing political tension between Syria and Israel boosted gold further.

The US Dollar continued its slide – it reached fifteen-year lows against most major currencies on the 11th on the back of poor domestic payroll data – and boosted commodity prices. Oil and gold rose and platinum followed suit, hurdling the \$1,300 barrier on the 12th. A 50 basis point decrease in the US Federal Reserve interest rate weakened the dollar again on the 18th. Gold hit a three-decade high and platinum reached \$1,336 for the third time in 2007. Long NYMEX positions rose by over 200,000 oz in the month and platinum ended September with a final fix of \$1,377, as speculation intensified again that there could be significant disruption to South African supplies due to possible strike action. Platinum fixed at a new all-time record of \$1,396 on **October** 11th and leapt above \$1,400 the following day.

**11** South Africa came to the fore again later in October – fatal accidents at a number of mines led to shaft closures under a new government-led safety regime. News of the resulting production losses came piecemeal throughout the month and kept the price climbing. The gold price rose too, aiding platinum, due to continuing tension between Turkey and Iraq. Lease rates rose and platinum moved into backwardation, peaking at a new record of \$1,462 on the 29th before some month-end profit-taking appeared.

*The rising gold price reflected investor interest in commodities and helped strengthen the platinum and palladium prices.*





Volatility in the platinum market has increased markedly in the last two years, particularly when compared to palladium.

**12 November** was a volatile month for platinum but the price showed no clear direction. Funds led a move into platinum as the dollar weakened early on. The South African unions also proposed a nationwide strike to protest against deaths in the mining industry, stimulating platinum to a peak of \$1,476 on the 7th. The price fell heavily back to \$1,389 on the 12th as market participants fretted over the prospects of a slowdown in global growth. Large volumes started to change hands on the fixes at this point and “bargain-hunters” emerged. General Public buying on TOCOM added 100,000 oz of longs on the 13th and platinum bobbed back over \$1,400 – it did not fall back below this point for the rest of the year.

More safety-related South African stoppages provided another boost to the price and investors continued to add to their positions on NYMEX and TOCOM. The amount of metal being taken by the exchange traded funds also increased markedly with roughly 80,000 oz bought in November overall.

A buoyant oil price, of nearly \$99 per barrel, showed the strength of the whole commodity complex (it had been only \$50 in January). With macroeconomic factors assisting, platinum reached another record of \$1,484 on the morning of the 26th before falling back to end the month at \$1,440.

**13 December**, though, saw no respite for platinum’s end users. Investment on NYMEX and TOCOM and through the ETFs helped push the price higher but challenges in the South African mining industry

also played their part. Despite the record prices, buying remained healthy on the Shanghai Gold Exchange at the start of the month. This strength was reinforced by news of another fatality in South Africa and a nationwide one-day strike across the entire mining industry. Platinum moved back higher, to reach \$1,472 on the 5th.

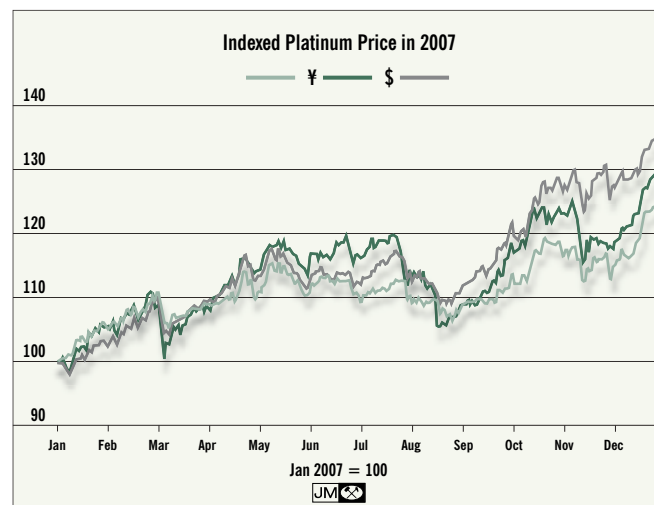
While a few investors started liquidating positions ahead of the year-end, others continued to build their investments. Chinese buying supported the price temporarily at \$1,460 before TOCOM buying pulled it higher. Lease rates started to rise, as did the price, on news that Ridge Mining had effectively hedged its first few years of production from its Blue Ridge operation.

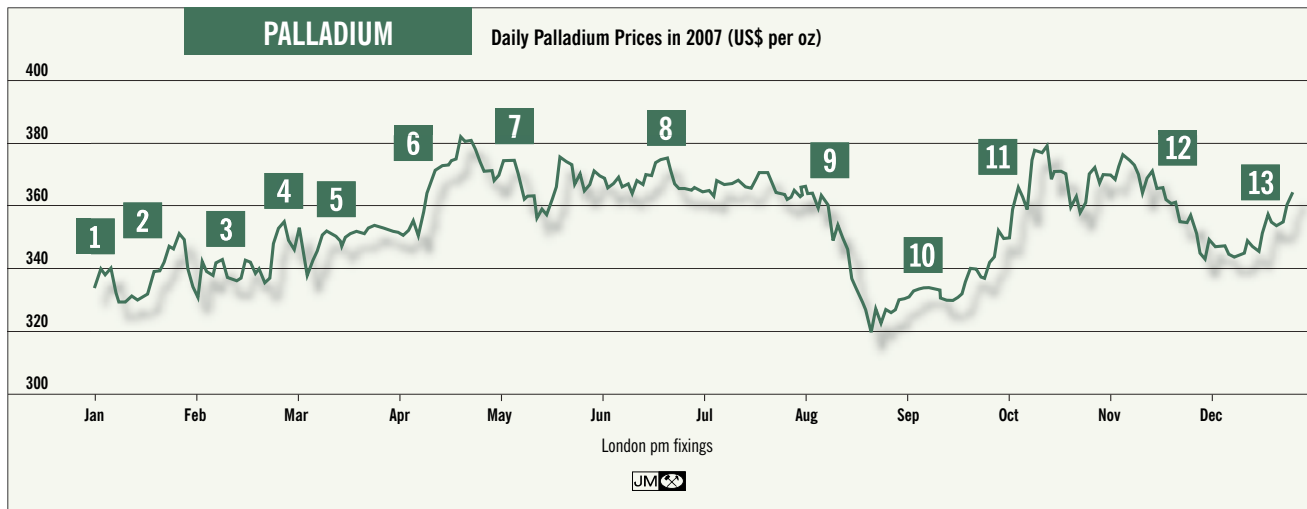
With Chinese end users still buying weighty amounts of metal, the price kept on rising. The January 2008 NYMEX contract rose over \$1,500 for the first time and platinum fixed in London at that price on the 18th.

**14** A general sense of nervousness existed by now in the platinum market and, in tight market conditions, almost any news was capable of raising the price. However, end-of-year profit-taking provided an equal and opposite impetus. Nonetheless, purchasing by ETF investors did push the price to \$1,526 on the 24th. In thin trading after Christmas, the assassination of Pakistani opposition leader Benazir Bhutto created ripples in the gold market. As gold rose, platinum climbed too, to a 2007 high of \$1,544.

Platinum drifted gently lower to end the year at \$1,529, 5.4 per cent up during December and 34.6 per cent higher than at the start of the year.

*The platinum price rose in almost every currency but the weakness of the US Dollar was one notable driver of price movements in 2007.*





*The palladium market was rather less dramatic than that of platinum, although the price did gain 10 per cent during the year.*

**Palladium gained \$33 during 2007, moving from an initial \$332 to a final fix of \$365, driven by movements in the dollar and gold and platinum prices, rather than by market fundamentals. Investor interest remained key to palladium's strength.**

**Although palladium kept pace with platinum for the first half of 2007, the remaining months were broadly neutral. The supply issues which affected platinum had little effect on palladium which traded between \$320 and \$380 for almost the entire year.**

**1** Palladium opened 2007 at \$332 and firmed to reach \$343 on **January 5th**. Net long positions on NYMEX and TOCOM grew due to buying by speculators and fund investors in early January. When investors realised that Russian palladium shipments were not subject to the same delays as platinum exports, the price fell to a monthly low of \$328 on the 11th.

**2** In mid-January, a stirring in the gold price boosted palladium. Fund-buying of platinum inspired some activity in palladium. As oil prices rose, net speculative NYMEX long positions grew to almost 800,000 oz, driving palladium to a peak of \$351 on the 25th.

**3** As soon as palladium rose above the psychologically-important \$350 mark, it gave up some of its gains to profit-taking. Heavy selling of the March NYMEX contract dominated the end of the month as funds took some of their profits, pushing the price as low as \$331.

Palladium settled into a \$5 range either side of \$340 in the first half of **February**. News of the very large

Russian palladium exports to Switzerland in November surprised the market but did little to the price.

Precious metal prices strengthened but palladium derived little support from this. It drooped to a mid-month low of \$335 on NYMEX selling before opening limit-up on TOCOM on the 22nd. Crude oil rose too, providing more support. Gold reached a nine-month high on a weak US Dollar and heaved palladium over \$350 to a monthly high of \$355.25 on the 26th.

**4** With many stock markets falling, investors sold-off some positions in palladium to raise cash and the price fell. The burgeoning US sub-prime mortgage crisis affected US confidence too but the effect was short-lived: palladium reached a low of \$338 on **March 5th** before buying reappeared. In percentage terms, palladium's drop was less than any of the other precious metals over this period.

**5** The palladium price inched higher over the following month. It crept back over \$340 and established itself in a range of \$340-\$355 with encouragement from a bout of dollar weakness. Strong physical demand followed after Easter, taking palladium over \$360 for the first time since mid-2006. NYMEX long positions grew to over one million ounces and palladium climbed to \$373 on **April 12th**, as the Euro hit a two-year high against the US Dollar, before encountering resistance.

**6** The Swiss Zürcher Kantonalbank (ZKB) announced its plans to launch an exchange traded fund (ETF) based on physical palladium on the 13th. Surprisingly,

the market was little affected and the price moved only grudgingly to \$376 and a new range of \$370-\$380. Some profit-taking by funds was seen but net long NYMEX positions continued to grow to a weighty 1.23 million ounces, demonstrating the considerable appetite and power of investors. The announcement of the launch of a second palladium ETF nudged the price higher, to its peak for 2007 of \$382 on April 20th.

**7** A falling platinum price and a rally in the dollar placed pressure on palladium and it dipped to \$368 on April 27th. The price firmed in early **May** with large amounts of metal changing hands on the fixes. For once, the palladium and platinum prices moved in different directions. Palladium peaked at \$375 on the 8th after an arduous week-long climb. NYMEX net longs reached 1.44 million ounces. As these were sold-off – with a drop of 130,000 oz in the second week of May – the palladium price subsided to a monthly low of \$356 on May 15th, with platinum close to its monthly peak.

More fund investor activity a week later drove palladium to a monthly high of \$375.50 on the 22nd. Profit-taking immediately revisited the market. A strengthening dollar drove commodity prices lower at the end of May and palladium settled below \$370.

**8** Palladium traded from \$360 to \$370 in early **June**. However, NYMEX net speculative long positions grew to reach 1.27 million ounces before the investment flow

was turned off. The price gained some ground in the second half of June with industrial demand responsible. It edged as high as \$375 on the 21st before platinum fell and dragged it lower.

**July** was no more exciting: palladium started at \$367 and ended at \$365, without moving more than \$5 in either direction. A falling dollar continued to support commodity prices; however, investor interest was reflected in large volumes of metal changing hands during the month.

**9** In late July, Nissan issued a press release on its ability to

reduce pgm loadings in its autocatalysts. Palladium was sold-off and drifted to a month-end \$365.

This downward move continued into the first half of **August**. Global credit worries intensified with the sub-prime crisis re-emerging. Palladium's price decline was slow initially but accelerated as the European Central Bank injected considerable liquidity into the banking system. This supported the dollar and palladium fell to \$349 on August 10th.

The weakness in the financial markets persisted, prompting further sales. NYMEX net long speculative positions fell by almost 200,000 oz in a week, driving technical selling. Palladium spiralled down by over 10 per cent to a yearly low of \$320 on the 22nd.

**10** Platinum ended August strongly but palladium was held back by heavy selling on the futures exchanges (NYMEX positions fell by some 500,000 oz during the month). However, as gold rose, palladium crawled higher. The release of poor US housing data on **September** 27th hit the dollar again and drove palladium to a monthly high of \$344.

**11** In early **October**, currency movements dominated. Oil and gold prices kept rising. Palladium followed as investors bought physical metal and TOCOM futures. However, the supply concerns in the platinum market were not reflected in palladium. Fund sales capped the price rise at \$380 and the price shrivelled to close to \$360. Later in the month, increased political tension between the USA and Iran boosted gold. Palladium followed and closed October at \$370.

**12** Palladium lost all of its recent gains in a month-long slide throughout **November**. Investors evaporated and the price slipped through various support levels. The fall intensified as Japanese investors sold-off gold and other precious metals. Palladium came to rest at \$343 on the 28th before generating any interest. It remained between \$340 and \$350 until mid-**December**.

**13** Palladium finally broke the resistance at \$350 on December 17th. Technical traders bought into this rise. With the downward pressure removed, the price rose on news of political turmoil in Pakistan late in the month. It jumped to close the year at \$365, 10 per cent higher than it was at the start of 2007.

**Palladium Prices in 2007**  
London am and pm fixings, \$ per oz

	High	Low	Average
January	351.00	328.00	336.85
February	355.25	335.00	341.75
March	354.00	338.00	349.95
April	382.00	350.50	368.65
May	375.50	356.00	367.45
June	375.00	363.50	368.50
July	370.50	362.00	366.25
August	366.00	320.00	343.55
September	344.00	330.00	334.80
October	380.00	348.00	365.45
November	379.00	343.00	363.00
December	365.00	344.00	350.95
Annual	<b>382.00</b>	<b>320.00</b>	<b>354.86</b>



**OTHER PGM**

Rhodium traded at a record average of \$6,191 during 2007, compared to \$4,557 in 2006, hitting an annual high of \$6,850 in late-December. The price movements were led simply by the shifting balance between daily supply and demand.

Rhodium started 2007 at \$5,550. The first signs of volatility were immediate: with Russian shipments suspended due to export licence issues, market bids drove the price to \$6,000 in **February**. The closure of Lonmin's No.1 furnace caused more nervousness. Heavy physical purchasing and a sense of apprehension drove rhodium to a mid-**April** peak of \$6,500.

When news emerged of the grant of the Russian export licences, the price started to drop. Lonmin restarted its furnace and the price crumbled to \$5,950 by the start of **May**. Lease rates started to rise, encouraging further buying instead of leasing by industrial customers, further reducing metal availability. The price climbed to \$6,350 before market offers reappeared.

Rhodium dipped below \$6,000 in **July** but this was the last time it was this low. End user buying drove a recovery to \$6,250 in **September**. Concerns over safety-related shutdowns in South Africa started to affect the market in **November**. Rhodium climbed steadily in the final months of 2007 and closed on the year's highs of \$6,850, close to its July 1991 peak of \$7,000.

Ruthenium had a rocky ride in 2007 – it started at \$610 and climbed as high as \$870 before plummeting to end December at \$415. Although the price had risen by over 600 per cent in 2006, considerable buying interest remained from both speculators and the electronics industry. Ruthenium reacted by rocketing to \$870, the year's high, on **February** 9th. Rumours of speculator sales then began to dog the market and the price eventually softened by \$20 on the 26th.

Now, the price could not stop falling and it hit a low of \$380 in **July**. Industrial purchasing was weaker than in 2006 but the market remained tense. Buying returned in **August** and intensified in **September**, driving the price to \$580 in **October**. End user purchasing then dwindled and the price dropped to end the year at \$415.

The Johnson Matthey iridium base price started 2007 at \$400. Speculative buying drove it to \$460 in **February**. It stayed at this level until **June** when it lost \$10. The price did not move again and ended 2007 at \$450.

