PGMs: Mixed Messages

Palladium coming back into favour versus Platinum.

By David Wilson

PALLADIUM WAS VERY the darling the of precious metals world in 2010, with prices ending the year almost 90% up on a London PM fix basis compared to the start. In contrast, Palladium's sister metal platinum struggled for momentum, rallying only 15% during 2010. Indeed, long palladium/short platinum was one of the popular trades of 2010, very much driven by significantly differing market fundamentals.

Obviously, the automotive sector was pivotal to palladium's price performance in 2010, with auto sector demand accounting last year for approximately 60% of world demand and contributing to a deficit of almost 600,000 ounces prior to Russian inventory shipments on the one side, and ETF and OTC investment on the other. Indeed, in the US full year sales were 11.6 million units and for the year as a whole the gain in car sales was 5.2%, while light vehicle sales increased by 11.1%. But it was really China that was the driving force, with auto sales up 30% last year, reaching 18 million units, on the back of a 45% rise in 2009.

Positive palladium sentiment was also bolstered through 2010 by Norilsk protestations that State inventory sales – after easing in recent years – were close to ending on depleted stocks.

Perception is everything on issues like this and the market clearly took this suggestion to heart, especially as sales from the State depository (Gokhran) have been the swing supplier for many years. The global market has been in a deficit every year since 2000 (except 2006), with an accumulated stock decline of over 7M ounces, or one year's supply. Shipments from Russian State stockpiles over the same period are estimated at over 11M ounces.

Investor uptake of physical palladium via ETFs reflected general positive sentiment towards the metal, with volumes being held by physical ETF rising by 80% through the year. But what a difference a few months makes. 2011 has seen palladium prices struggle, currently trading 2% down on early January levels, while ETF holdings have reversed, with holdings currently down 4% compared to the start of the year.

Clearly concerns over Chinese growth have weighed on Palladium this year – unsurprising given China's impact on demand growth in the last two years. Indeed, the year did not start off well with local authorities in Beijing implementing, in early January, a limit of just 240,000 new vehicle registrations for 2011, spread evenly over the twelve months. This is a cut of roughly 480,000 vehicles, implying a reduction of some 35,000 ounces of forecast demand this year.

In addition, the reduced levels of purchase tax on small (less than 1.6 litres) car purchases put in place in 2008 to maintain market stimulus have now been withdrawn. Added to this, the moves towards economic tightening via changes in banks reserve asset requirements, plus interest rate hikes, have heightened nervousness towards metals where Chinese demand is a dominant feature.

Part of palladium's relative price underperformance in 2011 has be the effect of an unwinding of those 2010 long palladium short platinum positions. However, we feel that the nervousness over palladium has been a little over done when looking at it's fundamentals versus those of platinum.

In reality, despite the winding in of China's auto-market stimulus measures, Chinese auto sales are expected to remain strong this year, rising by approximately 10% against 2010, i.e. around 1.8 million vehicles. Indeed, we are expecting global palladium use in vehicles to increase by at least 200,000 ounces this year. Although rising scrap returns will account for a portion of this demand growth, overall levels of primary demand are still expected to be on 2010 levels, reaching around 4 million oz.

> ... the automotive sector was pivotal to palladium's price performance in 2010 [60% of world demand]

One important element of demand growth is further substitution between platinum and palladium in the diesel autocatalysts. Platinum has had a stranglehold on diesel emission control catalysts since the technology was first developed in the 1970s. Advances in fuel technology now mean that palladium can substitute for 30% of platinum use in the diesel sector, although there is research in place that suggests that it could eventually take half platinum's use. One of the automotive sector bright spots is indeed the Heavy Duty Diesel sector. This is expected to continue to recover after its very heavy downturn in 2009, while the off-road sector is also of growing importance. Stricter diesel emission limits are being phased in between 2011 and 2014 and will require the fitment of advanced autocatalyst systems; this is likely to involve over 600,000 non-road mobile machinery units per annum. North American and European regulations have been harmonised and Japan is adopting broadly similar standards. Given expected substitution rates, we expect this to be particularly positive for palladium demand.

On the supply side, as mentioned above, Russian government sales, and the perception of their future, have been pivotal to market sentiment for many years and observers have been forecasting their exhaustion for much of the past decade. Despite Norilsk's premature protestations last year, the indications are still that sales are at last approaching their conclusion, with 2011 likely to be the last year of significant volume sales of what would be considered to be significant market balancing volumes. This will underpin positive market sentiment, along with expectations for the macro economy.

On the mine side, growth is expected to be subdued, with the only notable increases in due to come from North America, where Canada's Lac des Iles mine registers a full year's production after coming back onstream in 2010 following suspension in late 2008 due to low metal prices. Stillwater in the United States is also likely to increase output following ground problems in 2010.

To some extent the reduction in Russian sales, and limited mine supply growth, will be offset by the continued increase in supply from recycled emission control catalysts. Indeed, secondary supply is growing rapidly as the number of end-of-life vehicles containing palladium-bearing emission control catalysts continues to escalate. This reflects the massive increase in palladium demand in this end-use during the 1990s, and supply from this source will continue to grow rapidly for some years to come.

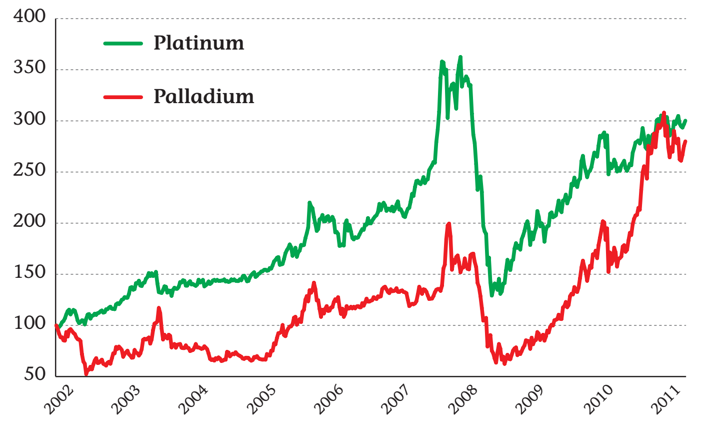
We expect scrap returns to approach 1.5M ounces this year, and could exceed 2M ounces per annum by the middle of the decade. But this will not be enough to make up the shortfall in the market. Indeed, we estimate that, without any movements in inventory, the palladium market will be in a deficit of perhaps 600,000 ounces this year and 700,000 ounces next year, driven in particular by the recovery in the US auto industry, continued growth in the BRIC nations' auto industries and the gain in market share in diesel emissions control systems.

Perhaps fundamental realities are become more obvious to the wider market in recent weeks, with palladium prices rallying by US$50/oz since May 23rd. Palladium ETF flows remain negative at the moment, but we expect this to change.

Meanwhile, platinum is trading 20% higher than in early June 2010. The rise has been prompted by a series of factors and we believe that it may be overdone. Part of the support has been genuine demand. There is anecdotal evidence of some interest from Japan, but we must also sound a note of caution over Chinese trade figures. Some of the recorded imports may well reflect "round tripping" – the re-import of previously exported metal – and the figures, therefore, may suggest a higher level of demand than is actually the case.

Chinese jewellery demand was 1.2M ounces last year (18% of world industrial demand), but this sector remains price-sensitive and fabricators started

Figure 1: Indexed Platinum & Palladium



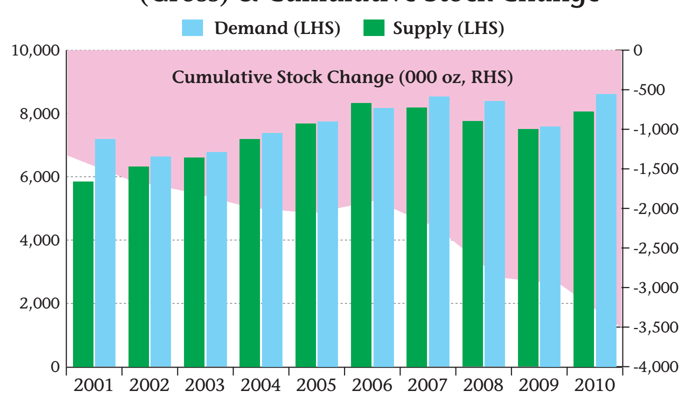
Sources: LPPM, SG Cross Asset Research

to struggle once prices went over US$1,600 last year. Margins were pared back in order to remain competitive and part of the industry switched to gold (which also, therefore accounts for part of the boom in gold jewellery in China).

Demand in China has been flat so far this year, although jewellers took advantage of the March price fall to pick up some inventory. While the European auto sector had shown some signs of sustainable improvement during the first five months of this year (Europe being the largest diesel auto market) auto sales appear to have stalled over the last month (although European auto production levels remain strong driven by export demand – largely for gasoline autos and therefore palladium beneficial. The European diesel sector accounted for 22% of world platinum demand last year although in mid-decade the share was closer to 25%. Since then, palladium has been making inroads into the diesel sector (comprising ~50% of the European auto market) and we doubt that the European industry will regain a 25% global market share.

Another set of developments that is theoretically price-supportive comes from South Africa. The Chief Executive of Eskom has warned that load-shedding is

Figure 2: Palladium; Supply–Demand Balance (Gross) & Cumulative Stock Change



Sources: GFMS, SG Cross Asset Research

a possibility in the next few months when local power demand is at its most intense. He implied that this was a remote likelihood, but made the point that he is looking to the long-term and is concerned about 2012. This does not imply that PGM production is under threat, but this possibility has prompted some market support. It is worth emphasising that energy related supply constraint concerns were also a fear factor during 2010, but such constraints never materialised, with GFMS reporting mine supply growing by 5% last year largely due to South African growth.

We suspect it will be a repeat case this year. Indeed, we expect mine production will be bolstered by scheduled increases from South Africa, Canada and Zimbabwe. Indeed, we still expect South African increases despite the Aquarius subsidiary Ridge Mining dropping the funding of Blue Ridge, with the operation being placed on care and maintenance, and Impala Platinum dropping plans to boost output at its Marula mine, and are shedding workforce. The decision is partly due to operational problems after changing the mining process at the Clapham shaft, but Impala management has also pointed to the low platinum price in rand terms.

It is worth noting that part of platinum's recent strength reflects dollar weakness. In euro terms it has been flat and in Swiss franc terms continues to decline. South Africa will obviously be important in determining sentiment, but if we are correct in our South African mine supply assumptions, the upside for platinum is, in our view, relatively limited.

Our supply and demand analysis points to a substantial surplus of platinum this year and we do not believe that investors will have the appetite to absorb enough metal to keep prices high. Indeed, physical investors have been cautious so far, adding just over 81,000 ounces in terms of ETF uptake, compared with 550,000 ounces in 2010. GFMS estimate that the platinum market was in a pre-investment surplus in 2010 of 1.04M ounces, equivalent to eight weeks' industrial demand. This was the sixth consecutive year of surplus and both GFMS and we at Société Générale are projecting another surplus for this year. We are also expecting the market to remain in surplus in 2012, with both years expected to throw off more than a million ounces of excess.

The contrast with palladium fundamentals could not be more stark, with palladium's deficit versus platinum's surpluses – plus a more positive palladium demand picture going forward – pointing to a reversion to 2010 style PGM relative price performance trends in the second half of this year. •

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