

PLATINUM

- Gross demand for platinum worldwide is forecast to increase by 175,000 oz to 8.08 million ounces this year, the highest since before the 2008 economic crisis.
- Purchasing of platinum by the automotive sector is set to increase by 3% to 3.16 million ounces in 2011, with growth mostly taking place outside of Europe.
- Industrial demand for platinum is anticipated to grow by 12% to 1.96 million ounces this year, a record high.
- Gross demand for platinum from the jewellery sector is expected to rise by 2% to 2.47 million ounces in 2011 with strong purchasing in China.
- Net identifiable physical investment demand for platinum is forecast to be lower this year than in 2010, but still positive at 495,000 oz.

AUTOCATALYST

Purchases of platinum by the automotive sector are expected to increase by 3% this year to 3.16 million ounces. Despite growth in the number of diesel vehicles produced in the European market and a rise in the production of heavy duty diesel vehicles worldwide, the increase in platinum demand is predicted to be rather more modest. The impact of the Japanese disaster is expected to affect demand as is continuing substitution of platinum with palladium on diesels.

Global vehicle production is expected to grow to 80.6 million units in 2011, an increase of some 2.5 million units compared with the previous year. Light duty vehicle production in Europe and North America was strong in the first half of the year and exports of premium brand vehicles to emerging markets such as China remained healthy. While recovery from the disruption caused by the Japanese disaster was fairly rapid outside of Japan, domestic Japanese vehicle production and sales are likely to be lower this year than in 2010. Heavy duty vehicle production is expected to rise in most regions this year.

Europe

Light duty vehicle production in Europe is set to increase by half a million vehicles this year to 18.3 million units. However, despite growth in underlying production, platinum demand is expected to soften by 15,000 oz to 1.48 million ounces as further substitution of platinum by palladium takes place.

For the European region as a whole, production of vehicles in the first half of this year was well ahead of the same period in 2010. The first half was notable for the emergence of a two-speed Europe in terms of vehicle sales, with the all-important German market experiencing a surge whereas in countries like Spain and Italy, which have been affected by sovereign debt problems, sales were sharply down. Production of light duty

vehicles in Europe was some way ahead of domestic sales in the first half of the year as demand for premium vehicles for export, particularly to emerging markets, remained strong.

Light duty vehicle registrations in Europe are expected to increase once again in 2011, with the share of diesel vehicles set to exceed 50%. Levels of fitment of DPFs in light duty diesel vehicles should increase this year due to Euro 5 emissions legislation that came fully into force in January 2011. However, the continued substitution of platinum by palladium in light duty diesel catalyst systems means that overall platinum demand will be down by a modest amount.

Another strong performance is anticipated this year from the heavy duty diesel (HDD) sector. In line with increased production, platinum demand in the European HDD sector is expected to increase by over 40% to almost 50,000 oz. At the moment, only around a third of HDD vehicles made in Europe use any pgm-containing aftertreatment.

Japan

The March 11th earthquake, tsunami and subsequent nuclear power crisis led to the closure of a number of vehicle manufacturing and component supply plants in Japan. Although output recovered more quickly than expected, the persistence of electricity and parts shortages has meant that

Platinum Demand: Autocatalyst						
'000 oz						
	Gross		Recycling		Net	
	2010	2011	2010	2011	2010	2011
Europe	1,495	1,480	(375)	(445)	1,120	1,035
Japan	550	475	(65)	(60)	485	415
North America	405	490	(580)	(605)	(175)	(115)
China	100	110	(10)	(10)	90	100
Rest of the World	525	605	(55)	(60)	470	545
Total	3,075	3,160	(1,085)	(1,180)	1,990	1,980

light duty vehicle production from domestic manufacturers is expected to slump by 14% to 7.9 million units compared with 2010 levels. With heavy duty vehicle production also down, gross platinum demand in the autocatalyst sector is set to drop by 75,000 oz to 475,000 oz this year.

North America

Gross demand for platinum in autocatalysts in North America is forecast to increase by 85,000 oz in 2011 to 490,000 oz. Economic recovery in the first half of the year, coupled with low inventory levels at the end of 2010, prompted an increase in light duty vehicle production, which is forecast to result in over 10 million units produced in the full year of 2011. More moderate gasoline prices are expected to continue to stimulate demand for larger trucks and SUVs. The share of production of such gasoline trucks is set to remain at around 62% in 2011.

In the light duty diesel sector, which is dominated by pick-up trucks purchased primarily by commercial users, platinum demand is expected to increase strongly. This is due to growth in light duty diesel truck output arising from pent-up demand.

As freight operators take advantage of better economic conditions in 2011 to renew their ageing truck fleets, we forecast a significant increase in demand for platinum in heavy duty diesel emissions control. With a strong first half of the year and impressive sales continuing through July and August, we expect to see an increase in production of heavy duty diesel vehicles of almost 50% in 2011. We anticipate an increase of similar magnitude in platinum demand.

China

Demand for platinum in Chinese autocatalysts is expected to grow by 10% to 110,000 oz in 2011 but will remain low by global standards. The double-digit rates of growth experienced in light duty vehicle production in recent years are set to slow to a much more modest 2.3% this year as the Chinese government attempts to engineer a soft landing for the economy. New vehicle restrictions in some cities will also have an impact on automotive production.

Rest of the World

Platinum demand in autocatalysts in the Rest of the World region is expected to increase by 15% to 605,000 oz this year as manufacturers, particularly in Mexico and South Korea, ramp up production to satisfy domestic and export demand.

JEWELLERY

Mainly as a result of growth in the Chinese market, we anticipate that gross platinum demand in the jewellery sector worldwide will rise by 2% to 2.47 million ounces this year. We forecast a softening of European demand, and robust demand in Japan and North America.

Europe

The number of platinum jewellery pieces hallmarked in the UK showed a year-on-year decrease in the first three quarters of this year. There was a similar story in gold which saw a greater relative decline of 14% in the first three quarters compared with platinum, which saw a 5% decline. This is perhaps testament to the continued strong position of platinum in the bridal sector as well as the high price of gold, which has encouraged consumers to choose bridal jewellery in platinum rather than white gold. In response to higher platinum prices, manufacturers have continued to offer lighter weight pieces to meet key retail price points. The trend towards lighter average weight pieces also appears to confirm reports from retailers that lower priced alternative metals are being chosen for male wedding bands, while platinum has maintained its share of the engagement ring and female wedding band market. The number of hallmarked platinum pieces in the UK fell to just over 150,000 pieces in January to September 2011, with the weight of hallmarked pieces falling by 18%.

Hallmarking statistics for platinum watch cases finished in Switzerland show a slight contraction of production between January and August 2011 compared with the same period last year, although the rate of decline is slowing in line with a return to spending on luxury items. Hallmarking of other platinum jewellery items made in Switzerland in the first eight months of this year rose by 28% to just over 30,000 pieces.

Japan

Gross platinum demand in the Japanese jewellery industry in 2011 is expected to remain fairly steady at 320,000 oz. The earthquake and tsunami in March 2011 may have had a short-term impact on consumer spending, particularly in the fashion jewellery segment, although jewellery sales are reported to have recovered since. In addition, in the aftermath of the disaster more couples are getting married, temporarily reversing a long-term trend towards later and fewer marriages and stimulating purchases of platinum wedding bands as

well as engagement rings. However, due to a continued trend towards lighter weight pieces in response to higher prices, platinum demand has remained almost flat.

North America

Consumption of platinum by the jewellery sector in North America is expected to remain flat in 2011 at 175,000 oz. The platinum jewellery market is likely to be supported this year by strong growth in production from certain high-end manufacturers. Production by these manufacturers for the domestic market as well as exports has been impressive, although middle-market manufacturers report challenging conditions. The majority of platinum jewellery sold in North America is bridal wear. As elsewhere, higher platinum prices have contributed to a trend towards lower weight pieces to meet key retail price points. The elevated gold price this year, particularly as it reached parity with platinum in August, may help platinum gain market share in the bridal sector although both face competition from alternative materials.

China

Platinum jewellery demand in China is forecast to rise by 2% to 1.69 million ounces in 2011. Purchases of platinum by the jewellery industry on the Shanghai Gold Exchange reached two-year highs in the first quarter of this year, despite platinum prices during that time being on average 12% higher than the same period in 2010 in RMB terms. This suggests that manufacturers, retailers and ultimately consumers are adjusting to higher price levels.

Plain jewellery continues to be strong and is the mainstay of the Chinese platinum jewellery market. A growing trend is for manufacturers to look for higher margins by offering gem-set platinum pieces, which appear to be popular with customers. We expect this trend to continue as increasingly affluent

consumers seeking new designs are prepared to spend more on gem-set pieces.

The record high price of gold has given something of a boost to platinum recently. In rare periods of price parity, platinum is seen as a good buy in comparison with gold for manufacturers and retailers. Because of this, in recent months some stock building has been evident. Overall this year, manufacturers report that the number of platinum pieces they produce has increased, although the weight of individual items has in many cases declined, in line with attempts to target particular price points in the market.

Although gold jewellery has been popular at retail level due to consumer perception of gold being a store of value, some consumers have begun to see platinum as a bargain since gold reached parity with platinum.

Rest of the World

Platinum demand from the jewellery sector in the Rest of the World region is set to rise by 25,000 oz to 120,000 oz this year. The Indian platinum jewellery market continues to grow rapidly from a low base, and demand is expected to rise to over 80,000 oz in 2011.

INDUSTRIAL

Industrial demand for platinum is forecast to rise by 12% to 1.96 million ounces in 2011 with strong growth in the petroleum refining and glass manufacturing sectors.

Purchasing of platinum in the chemical sector is expected to grow by 40,000 oz to 480,000 oz. Much of this demand is from expansions to plants, mainly in China, which manufacture paraxylene. Platinum process catalysts are used in the production of paraxylene, a chemical intermediate that is ultimately used to make a range of textiles and packaging. Downstream demand for such consumer goods, particularly in Asia, is driving upstream capacity expansion and stimulating additional catalyst requirements.

The glass industry is expected to purchase 435,000 oz of platinum this year, an increase of 13% year-on-year. Expansion of production facilities that make LCD glass, used in televisions and mobile devices, should drive up demand for platinum-rhodium melting tanks and platinum coated components used in the manufacturing process. Growth in purchasing for LCD glass is anticipated to be strongest in Japan, where platinum demand is set to double as planned capacity increases take place. Demand is also expected to be up strongly in the Rest of

Platinum Demand: Jewellery '000 oz						
	Gross ¹		Recycling ²		Net ³	
	2010	2011	2010	2011	2010	2011
Europe	175	165	(5)	(5)	170	160
Japan	325	320	(280)	(325)	45	(5)
North America	175	175	0	0	175	175
China	1,650	1,685	(450)	(360)	1,200	1,325
Rest of the World	95	120	0	0	95	120
Total	2,420	2,465	(735)	(690)	1,685	1,775

NOTES TO TABLE

¹ Gross demand is equivalent to the sum of platinum jewellery manufacturing volumes and any increases in unfabricated metal stocks within the industry.

² Recycling represents the amount of old stock and old jewellery recycled whether the metal is re-used within the jewellery industry or sold back to the market.

³ Net demand is the sum of these figures and therefore represents the industry's net requirement for new metal.

Platinum Demand: Industrial '000 oz			
	2009	2010	2011
Chemical	290	440	480
Electrical	190	230	250
Glass	10	385	435
Petroleum	210	170	210
Other	440	530	585
Total	1,140	1,755	1,960

the World region due to new manufacturing lines being added as well as platinum inventories being purchased this year in advance of future demand. A move towards manufacturing LCD glass in China to supply domestic display panel production resulted in more melting tanks being added there as well. In contrast, as a result of recent expansions and lacklustre economic conditions, the global glass fibre manufacturing industry currently has excess capacity. Demand for platinum in glass fibre production is likely to be depressed compared with 2010 as investment in new facilities is deferred and as returns from older marble re-melt glass fibre plants continue.

The expansion of petroleum refining capacity is also expected to create additional demand for platinum catalysts this year, with purchasing set to rise by 24% to 210,000 oz. Platinum catalysts are used to upgrade low-octane petroleum to high-quality gasoline as well as to process petrochemical feedstocks for the manufacture of polymers. Planned capacity increases in North America, which were delayed during the recession, are now beginning to be built and are expected to double platinum demand in that region. In Europe, planned capacity increases in diesel fuel production, which often involves the use of platinum promoters, will also contribute to higher demand. In addition, a large renewable diesel plant opened in the Netherlands in 2011 which uses platinum catalysts to produce diesel from waste cooking oils.

INVESTMENT

Investment demand for platinum in 2011 is forecast to be 160,000 oz lower than in 2010 but positive at 495,000 oz.

In the first nine months of 2011, the Japanese large platinum bar market showed net investment, particularly during price dips. For the year as a whole, investment in 2011 is expected to be strongly positive at around 100,000 oz.

Net identifiable physical investment in various ETF vehicles was on the whole in positive territory for the period January to mid-September 2011. Excepting a major swing in investor

sentiment caused by the onset of a sovereign debt crisis or global recession, we anticipate that total ETF holdings should remain positive for the full year of 2011 at around 385,000 oz. The relatively light redemptions seen in platinum ETF holdings, even during periods of severe price falls, suggest that many investors see strength in the supply-demand fundamentals of the platinum market.

European ETF holdings are expected to continue the upward trend displayed for much of 2011 with net investment by year-end forecast to be more than double the net investment in 2010. Although there was some liquidation this year, particularly around periods of downward price movements surrounding the Japanese disaster and Middle East turmoil, the general trend has been towards net investment. All European platinum ETFs showed net investment between January and mid-September 2011. Two new platinum ETF vehicles, from iShares and Source, were launched in April 2011. The Source fund in particular attracted considerable new investment in the weeks after its launch, however it remains uncertain whether the new funds attracted genuinely new investor demand or whether investors were shifting their holdings between different vehicles.

ETF Securities' US fund is also anticipated to end the year with positive net investment for 2011, although at a much lower level than in the previous year. Redemptions in March, May and September rapidly brought down total holdings in the US fund. Holdings tended to rebound, though not always to their previous level, keeping the fund in positive territory but lower than the strong year of 2010 when there were heavy inflows into the then-new fund.

The platinum coin market has been relatively quiet this year due to the lack of production of bullion coins and a vibrant secondary market. However, there has been limited manufacturing of Platinum Eagle coins by the US Mint from late May, one-ounce 'Cougar' coins by the Royal Canadian Mint, and releases by the Perth Mint as part of the final year of their 'Discover Australia' series of coins.

Platinum Demand: Investment '000 oz			
	2009	2010	2011
Europe	385	140	320
Japan	160	45	105
North America	105	465	65
China	0	0	0
Rest of the World	10	5	5
Total	660	655	495