# "Platinum 2011"

Johnson Matthey's latest analysis of the platinum group metal (pgm) markets, "Platinum 2011", was released on 16th May 2011. The trends in supply and demand and the short term outlook on the status of the pgm market are reported.

#### **Platinum**

#### Platinum Market Close to Balance in 2010

In 2010, the platinum market was close to balance with a surplus of 20,000 oz. Gross demand for platinum increased by 16% to 7.88 million oz, however, supplies remained almost flat at 6.06 million oz. Recycling of platinum also increased by almost a third to 1.84 million oz.

## Slight Rise in Supplies in 2010

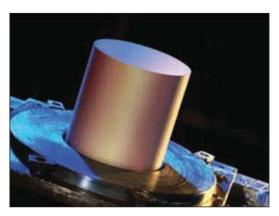
After a mixed year for producers, global supplies of platinum increased very slightly by 35,000 oz to 6.06 million oz in 2010. In South Africa, platinum supplies remained flat at 4.64 million oz. Refined production in South Africa increased very slightly, however, not all of this metal had been shipped by the year-end. Platinum shipments from Russia increased by 5% to 825,000 oz. There was a ramp-up of expansion projects in Zimbabwe which resulted in growth of almost a quarter to 280,000 oz.

### **Autocatalyst Demand Surged**

Following poor demand in 2009, the global automotive sector recovered and demand for platinum in autocatalysts rose by 43% to 3.13 million oz. Vehicle production increased in all regions, therefore increasing the demand for platinum. Europe, where platinum was mainly used in diesel autocatalyst formulations, had the largest increase in demand as the market share of diesel vehicles increased.

### **Industrial Demand Rose in 2010**

Gross industrial demand rose by 48% to 1.69 million oz due to economic recovery in developed markets and strong growth in emerging ones. Production of electrical, glass and chemical products which use platinum either in the finished item or in the manufacturing process soared. Higher sales



In 2010, the demand for platinum in autocatalysts surged. A better-performing global automotive industry increased the demand for emissions control devices

of consumer electronics increased the level of demand.

## Fall in Platinum Demand for Jewellery Manufacture

Demand for platinum jewellery dropped by 14% following strong demand in 2009. Although the Chinese jewellery market remained robust, this was considerably lower than in 2009 due to the higher metal prices and full stock levels.

Platinum demand increased by 30% in North America and continued to gain popularity in India. Demand was slightly down in Japan and Europe.

### **Palladium**

## Palladium Market in Fundamental Deficit in 2010

Palladium supplies increased by 3% to 7.29 million oz, however, gross demand rose by 23% to 9.63 million oz after a strong performance by the automotive sector and a large increase in investment demand, leaving the market in a fundamental deficit of 490,000 oz.

In 2010, open loop recycling of palladium in the automotive, electrical and jewellery sectors reached 1.85 million oz, an increase of nearly a third compared with 2009.

### **Autocatalyst Demand Increased**

Gross demand for palladium in the autocatalyst market grew by 35% to 5.45 million oz in 2010 due to economic recovery and stricter emissions legislation. Palladium is increasingly used as an alternative to platinum in autocatalyst formulations despite a narrowing of the price difference between the two metals. In China, economic growth and tax breaks from the government aided growth in the market for light-duty vehicles and the demand for palladium surged by 42% to 975,000 oz.

### Weaker Demand in the Jewellery Sector

Gross demand for palladium in the jewellery market diminished by 20% to 620,000 oz. A fall in palladium jewellery manufacturing in China contributed to this reduction, which counteracted increases in Europe (increased by 40%) and North America, which had grown in 2010 to 65,000 oz.

## Rise in Industrial and Investment Demand for Palladium

Gross industrial demand for palladium strengthened by 70,000 oz to 2.47 million oz in 2010. This was aided by increases in the chemical industry by 22% and a rise in gross purchasing from the electrical market by 40,000 oz to 1.41 million oz. Physical investment demand expanded by 74% to 1.09 million oz in 2010 due to purchasing of Exchange Traded Funds (ETFs) in the USA.



Palladium demand in electronic components rose during 2010

#### **Recycling of Platinum Group Metals**

2010 saw another rise in open loop recycling (autocatalyst, electrical and jewellery) where the metal is sold back to the market after refining. This contrasts with closed loop recycling where the pgms are recycled and reused in the same application. Open loop recycling figures for platinum, palladium and rhodium for the different applications are discussed.

## **Other Platinum Group Metals**

Supply and demand data is briefly discussed for rhodium and the net demand for ruthenium and iridium is summarised. A strong recovery in purchasing of rhodium by the automotive industry and glass and chemical markets led to a rise in gross demand of 22% to 873,000 oz. There was a slight decline in global supplies by 19,000 oz to 751,000 oz, due to a build-up of pipeline stocks in South Africa. On the whole, the rhodium market tightened, however, it remained in surplus by 114,000 oz.

Net demand for ruthenium rose by 79% to 1.03 million oz. The biggest demand for ruthenium came from the electrical sector which was driven by an increase in purchasing for hard disk drive manufacture, where it is used together with platinum in perpendicular magnetic recording hard disk drives.

Net iridium demand increased from 81,000 oz in 2009 to 334,000 oz in 2010. Strong sales of backlit LED televisions drove the demand for iridium crucibles, used to make single sapphire crystal which is used as a substrate in LEDs.

### **Special Features**

A special feature on fuel cells explains their potential and the importance of the pgms in the catalyst layer. Fuel cells in the auxillary power, combined heat and power (CHP) and materials handling vehicle markets are summarised. A report on the use of pgms in glass manufacturing discusses the role of pgms in this process and reviews the current market conditions and prospects.

### Availability of "Platinum 2011"

The book is available to download free of charge, as a PDF file in English, Chinese or Russian by visiting the Platinum Today website at: http://www.platinum.matthey.com/publications/pgm-market-reviews/archive/platinum-2011/. Alternatively the English version can be ordered in hard copy, by filling in the form at: http://www.platinum.matthey.com/publications/pgm-market-reviews/request-acopy/, by emailing a request to: ptbook@matthey.com, by writing to: Johnson Matthey, Precious Metals Marketing, Orchard Road, Royston, Hertfordshire, SG8 5HE.UK.