

PLATINUM (Pt)

KEY TRENDS IN THE PLATINUM MARKET

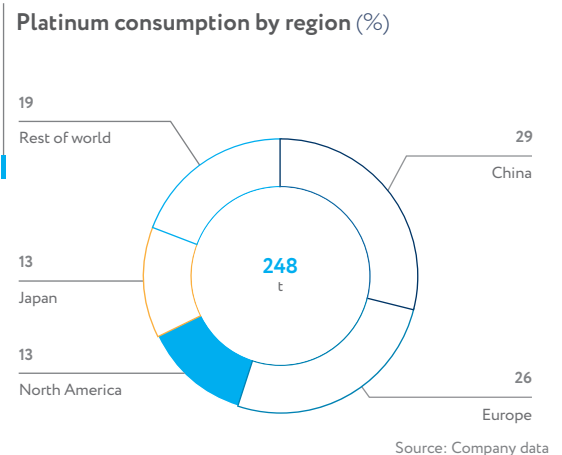
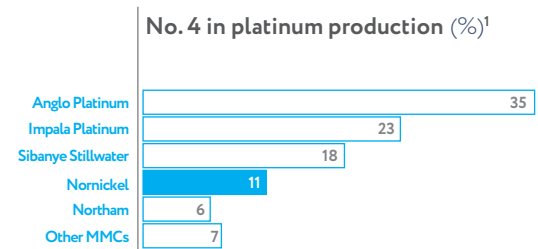
2019: A growing deficit in the market driven by high investor demand which has fully offset the decline in platinum use by the automotive, jewellery, glass, and other industries.

Following a significant drop in late 2018, the price of platinum remained stable throughout 2019 and showed some fluctuation while staying within the range of USD 780/oz to USD 920/oz in the first half of 2019. In the second half of 2019, the price increased as investor demand recovered, triggering sharp inflows into platinum ETFs (31 t in total). At year-end, the price of platinum stood at USD 971/oz.

Platinum and gold prices moved closely together in 2019, indicative of platinum prices being highly dependent on macroeconomic factors, which had an overall positive influence on precious metals during the year. The US Fed's decision to put interest rate hikes on hold led to a weaker US dollar and thus bolstered precious metals prices. And as inflation expectations rose compared to 2018, investors were more inclined to move to precious metals as a safe-haven asset.

During the year, platinum traded 40% lower against gold. In April and May, the gap reduced to 30%, driven by recovering investor demand for platinum and an increase in net-long speculative positions in NYMEX. As the price and the speculative sentiment went down at the end of the first half of 2019, the spread soon rebounded to a 40% mark.

The key fundamentals behind this included a drop in platinum consumption by the automotive industry



due to a shrinking share of diesel cars in key markets (primarily, Western Europe), the lack of anticipated recovery in demand from Chinese jewellers due to a threatened trade war between China and the USA, and primary producers not being too sensitive to low prices.

The average platinum price in 2019 was USD 863/oz (a 15-year low), down 2% y-o-y.

Average annual platinum prices (USD/oz)					
2014	2015	2016	2017	2018	2019
1,385	1,053	989	949	880	863

Source: LBMA Platinum price

^{1/} Refined metal including production from own feedstock by third parties under tolling agreements.

MARKET BALANCE

The platinum market went into a deficit in 2019: even though platinum production exceeded consumption, much of the excess supply was absorbed by investor demand.

CONSUMPTION

Industrial consumption of platinum in 2019 declined to 243 t, down 6 t (or 3%) y-o-y.

The automotive industry is the predominant consumer of platinum. Over 80% of platinum in this industry is used to manufacture exhaust gas catalysis for diesel vehicles.

In 2019, platinum consumption in the automotive sector marginally decreased y-o-y by 0.4 t mainly due to a decreased share of diesel vehicles in their key market – Europe. In 2019, the market share of diesel cars in Europe (27 countries) dropped from 36% to 31%, an all-time low since 2000.

Diesel engines are giving way to petrol-based solutions, while more expensive vehicles utilise petrol-electric hybrids. The lower platinum consumption by car makers was partially offset by increased manufacturing of trucks, the catalytic devices of which still rely on platinum.

The second-largest platinum consumer is the jewellery industry, accounting for a third of demand. The reporting period saw a sustained downward trend in platinum consumption in the industry (down 3.6 t), persisting over the last few years. The decrease was primarily driven by lower jewellery demand in China due to consumers switching to other investment options, and the falling demand for luxury goods amid

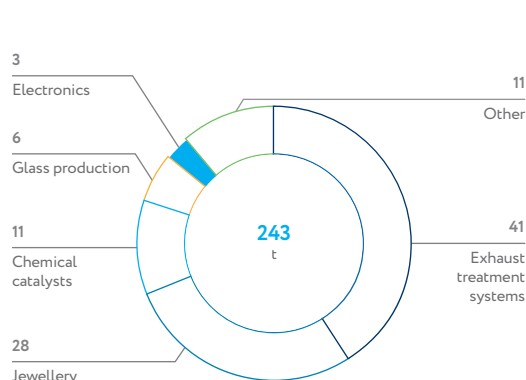
Platinum market balance (t)

Platinum production and consumption balance	18
Investor demand	42
Destocking by mining companies	3
Supply and demand balance	-22

Consumption of platinum (t)



Platinum consumption in 2019 by industry (t)



concerns over the country's sustained economic growth. While China is currently facing growing competition in the platinum jewellery sector from gold items, other major markets (India, Japan, USA, and Europe) have seen increased platinum jewellery sales.

CHEMICAL INDUSTRY

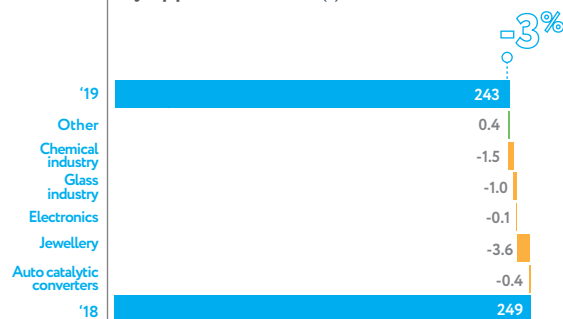
In 2019, primary platinum consumption in industrial catalyst manufacturing decreased by 1.5 t due to lower refining volumes and falling oil prices.

GLASS INDUSTRY

Platinum is needed to produce glass fibre and optical glass. In 2019, the industry's demand for platinum declined (down 1 t) after several years of continuous growth.

Platinum consumption in electronics slightly decreased (down 0.1 t).

Platinum consumption by application area (t)



INVESTMENTS

Platinum is widely used as an investment instrument. Physical investments may vary from coins and smaller bars to investments in physical platinum ETFs, which accumulate large amounts of platinum in standard bars. In 2018, the demand for platinum bars from retail investors slightly rose (up 9 t) due to low prices coupled with expectations of growth. During the year, investments in platinum ETFs fell by 7 t to 76 t.

PRODUCTION

Global production of primary refined platinum in 2019 decreased y-o-y by 2 t to 189 t.

In the reporting period, supply from South Africa, the world's largest platinum producer, declined by 2 t. Russia recorded a slight increase of 0.3 t in platinum output, with continued production declines at the alluvial deposits in the Far East region driven by a depleting mineral resource base. The negative trend was offset by an increase in Nornickel's output.

The platinum output in other regions remained largely unchanged.

Primary platinum production by countries (t)

'19	189
South Africa	-2
Zimbabwe	0
Russia	0
North America	0
Rest of world	-1
'18	191

Source: Company data

The main sources of recycled platinum include used exhaust gas catalysts and jewellery scrap. Recycled output in 2019 grew by 6 t to 71 t. However, the growth of recycling was hampered by difficulties in using new types of silicon carbide-based diesel catalysts. Being a refractory material, it can damage furnaces unfit to handle it. This requires processors to sort through catalysts and separately process material with a high silicon content, requiring extra time and resources.

The sources of previously accumulated platinum stockpiles include trading companies, financial institutions, and surplus inventories of consumers, while the movement of these inventories is non-transparent.