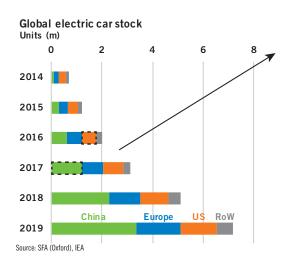


Will a road race to electrify America leave PGMs in the dust?

Placing climate change at the centre of US energy policy will likely accelerate the electric vehicle (EV) shift in the US away from internal combustion engines (ICEs) and PGMs. With the exception of Tesla, EV uptake has been slow off the mark in the US and is limited in the current situation due to the recent reversal of emission legislation under Trump's administration. Joe Biden, the Democratic US presidential candidate, has recently outlined a plan to electrify the US transportation sector, installing a vast EV charging network and deploying utility-scale battery storage across the country.



An evolving EV landscape in the US:

- The US was the largest EV market in the world until China took over in 2017.
- The new rolled back emission standards risk putting the US in the slow lane of developing new automotive technologies, putting US manufacturers at a competitive disadvantage.
- Biden policy (if elected) has the potential to incentivise EV sales in the US to be more in line with those in China and Europe.
- However, with Americans using their cars more frequently and for much longer journeys, widespread EV uptake is likely to be restricted.

New electric pick-up trucks and SUVs may appeal to the wider US market. Pick-ups are a critical market for the US, accounting for 18% of light-vehicle sales each year and making up a significant proportion of automakers' profits. The arrival of eight new electric pick-up models in the US from 2021, including an electric version of the best-selling Ford F-150, could easily signal the start of the EV era if demand takes off. Subsidies in the US are currently capped by unit sales, with only a manufacturer's first 200,000 EV sales eligible for a tax rebate. Models from new EV manufacturers, such as Ford, will have a competitive advantage over brands such as Tesla, for which credits have already expired. Moving forward, it is possible that the limit will be raised or even removed to incentivise sales further.

Conversely, there is still significant uncertainty surrounding the timing and strength of the US economic recovery after Covid-19, with cases still surging in some states. With a global recession looming, discretionary purchases such as new vehicles (electric or otherwise), are likely to be postponed. Even if EV tax credits and other incentives are reintroduced following the election in November, it will take several months, or even years, for the industry to recover and these decisions to have a meaningful impact on sales.

Everything being equal, the future of ICE vehicles in the US will be determined by the scale of investment in the EV economy. All-electric vehicles made up just 2.05% of US light-vehicle sales last year, but if EVs become both a practical and an economical choice for Americans they are more likely to make the transition. In the near term, however, while cheap and plentiful gasoline is flowing, PGM-rich ICEs are likely to maintain their stronghold, providing support for prices. The US is the second-largest gasoline market in the world with 17.2 million light vehicles sold last year, accounting for 22.5% of global palladium and rhodium demand annually.

PRECIOUS METALS REVIEW

⁷⁹ **Au**

Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,939	-0.25%	2,016	18/08/2020	1,912	21/08/2020
€/oz	1,647	0.25%	1,689	18/08/2020	1,625	21/08/2020

China's gold demand remained stable in July despite gold prices hitting a record high. Trading volumes of Au9999 and gold withdrawals from the Shanghai Gold Exchange levelled off last month after rebounding strongly in March and April. Anecdotal reports suggest that jewellery sales are still being held back by the high gold price, however, as well as it being out of season for purchases. There is expectation that sales will pick up in Q4 for wedding and national holiday celebrations. Additionally, leaders of the Communist Party of China are now placing domestic demand as the strategic focus of the country's economic development, increasing its effort to stimulate domestic consumption and investment, which is positive for China's consumer gold demand. Consumer gold purchasing in

China, including jewellery, bars and coins, totalled 850 t last year or 19% of global gold demand (source: World Gold Council). In terms of volume, consumer demand is likely to be lower this year than in 2019 owing to the impact of Covid-19 on spending.

The gold price reached \$2,000/oz again last week as renewed tension between the US and China boosted safe-haven demand. President Trump has announced further curbs on China's Huawei. However, the gains were rapidly reversed in the second half of the week, when minutes from July's FOMC monetary policy meeting revealed no plans for yield curve control. If real interest rates continue to rise then gold could pull back further.

Ag Silver

	Close	Weekly change	High	Date	Low	Date
\$/oz	26.74	0.34%	28.47	18/08/2020	26.05	21/08/2020
€/oz	22.71	0.85%	23.85	18/08/2020	22.14	21/08/2020

The silver price edged higher last week even though the Fed highlighted uncertainty around the economic recovery of the US and offered no new information on further stimulus measures. Weaker than expected economic data from the US failed to lift prices much for either gold or

silver, as weekly jobless claims rose back above 1 million (source: US Department of Labor). Silver fared slightly better than gold and should continue to do so while the rally lasts.

Pt Platinum

	Close	Weekly change	High	Date	Low	Date
\$/oz	916	-3.94%	975	18/08/2020	898	21/08/2020
€/oz	778	-3.48%	819	18/08/2020	763	21/08/2020

Western Europe's diesel car market share was down 4.0 percentage points in July compared to July 2019. The share of diesel cars last month was 28.2%, compared to 32.3% in the same period last year. Notably, Germany's diesel car market (excluding diesel hybrids) fell below 30% for the first time in recent years (source: LMC Automotive). Platinum-rich diesel cars have been losing out to expanding gasoline, and more recently electric, vehicle markets since 2016. Demand for EVs, in particular, is being incentivised by the post-Covid-19 subsidy schemes on offer in some of Europe's largest car markets. Western Europe accounts for 15% of global platinum demand (ex. investment), at around 1 moz. The price continued to slide last week, but end-users and investors are still buying platinum at \$900/oz+ even with a poor fundamental outlook.

A strong PGM basket price shines a light on South Africa's mothballed mines. Baroka Platinum has submitted an expression of interest in the Bokoni mine, which is jointly owned by Atlatsa Resources (51%) and Anglo American Platinum (49%). The mine is located in the northern part of the Eastern Limb of the Bushveld Igneous Complex in South Africa, and was placed on care and maintenance in 2017 after it failed to generate a profit. At its peak, Bokoni produced >100 koz Pt, 70 koz Pd and 10 koz Rh, from both the Merensky and UG2 orebodies. The PGM basket price is more than 100% higher today than it was in June 2017 when the mine closed, owing mainly to strong palladium and rhodium prices.



Pd Palladium

Rh

	Close	Weekly change	High	Date	Low	Date
\$/oz	2,188	2.29%	2,236	18/08/2020	2,126	17/08/2020
€/oz	1,860	2.85%	1,878	18/08/2020	1,801	18/08/2020

A high palladium price boosted producer profitability in the first half of the year despite Covid-19 setbacks. Sibanye-Stillwater's average received metal price for H1'20 was significantly higher than in the same period last year, owing largely to high palladium and rhodium prices. The average 2E (Pt and Pd) basket price at the company's Stillwater operation in the US was \$1,837/oz, a 43% increase year-on-year. Mined 2E production from Stillwater rose 5% year-on-year to 297,740 oz, as US operations continued to operate largely uninterrupted throughout H1. Recycling volumes slumped 6%, however, as the pandemic weighed on global autocatalyst

collections and deliveries. High precious metal prices, primarily palladium, rhodium and gold, allowed Sibanye-Stillwater to deliver strong financial results across all segments in H1'20, despite the challenges posed by Covid-19, which particularly affected the company's South African operations. Stillwater mine produced 460.5 koz of palladium last year, accounting for 40% of the company's palladium output. The price breached \$2,200/oz last week, but again failed to hold above it. With demand expected to drop by more than supply this year, the price could slip further.

Rhodium, Ruthenium, Iridium

 Rhodium
 Ruthenium
 Iridium

 Reporting week
 \$12,550/oz
 \$295/oz
 \$1,650/oz

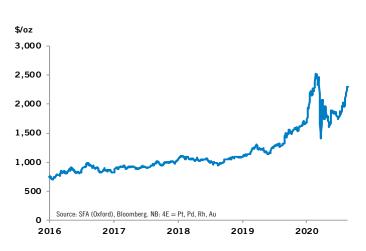
 Previous week
 \$11,350/oz
 \$295/oz
 \$1,650/oz

A recession could weigh on ruthenium and iridium electrochemical demand, through its indirect association with the construction industry. The majority of chloralkali capacity, which utilises iridium- and ruthenium-coated electrodes, supplies feedstock for vinyl. Vinyl products are widely used in the construction industry globally, which is at risk of being particularly hard hit by an economic recession. Electrochemical uses for iridium and

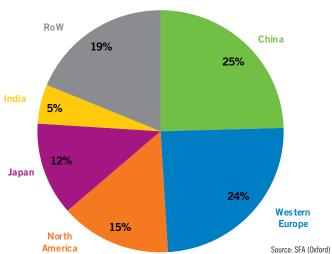
ruthenium, such as the chloralkali process, accounted for 61 koz and 182 koz of demand respectively last year.

The rhodium price pushed higher again last week, closing 10.5% up at \$12,550/oz, as car manufacturing in China and Europe picks up. Iridium and ruthenium prices were stable week-on-week.

South African 4E basket price



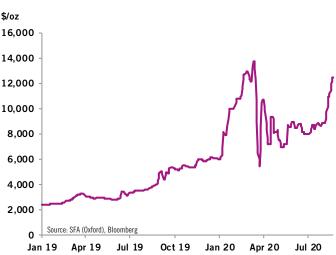
2019 platinum demand



Gold:silver ratio



Rhodium price



Heraeus Precious Metals

Europe, Middle East, Africa & other regions Phone: +49 6181 35 2750 edelmetallhandel@heraeus.com

South East Asia Phone: +852 2773 1733 tradinghk@heraeus.com United States of America Phone: +1 212 752 2180 tradingny@heraeus.com

China

Phone: +86 21 3357 5658 tradingsh@heraeus.com

The **HERAEUS PRECIOUS** APPRAISAL produced in collaboration with:

SFA (Oxford) Ltd United Kingdom

United Kingdom Phone: +44 1865 784366 www.sfa-oxford.com



The Oxford Science Park, Oxford, United Kingdom, OX4 4GA

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