Heraeus

PRECIOUS APPRAISAL



27th May 2024

GOLD 01

- SILVER 02
- PLATINUM 03
- PALLADIUM 04
- RHODIUM, RUTHENIUM, IRIDIUM 05
- TRENDS AND INVESTMENTS 06
- **ABOUT HERAEUS** 07

PRECIOUS METALS REVIEW Gold

	79							
	Au Gold 196,9665		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
	100.000	\$/oz	2,335	-3.04%	2,447	20/05/2024	2,325	24/05/2024
		€/oz	2,151	-2.89%	2,251	20/05/2024	2,149	24/05/2024

Gold fell back after hitting a historical \$2,450/oz high. After briefly surging to a new all-time high of \$2,450/oz, potentially helped by safehaven buying following the death of the Iranian President, the gold price retreated. Over the past two weeks, ETF inflows recorded 324 koz, for now reversing the trend of net outflows since the beginning of the year, suggesting strong institutional purchases have contributed to the recent rally prior to last week. Having been absent from the market for most of gold's ascent this year, ETF investors (primarily institutional investors) returning to gold via ETFs could be a catalyst for further appreciation of the gold price if meaningful buying is continued.

Hawkish Fed meeting minutes bolster the dollar. The meeting minutes from the previous Federal Open Market Committee gathering suggested that multiple Federal Reserve officials prefer keeping interest rates higher for longer. This hawkish stance may have supported the strengthening of the dollar and a rise in US bond yields, contributing to gold's retreat. Having shown divergence between the price and the daily relative strength index, the price has fallen sharply. Near term, there could be some more downside as the gold price consolidates after gaining nearly \$500/oz since its February low.



27th May 2024

- GOLD 01
- SILVER 02
- PLATINUM 03
- PALLADIUM 04
- RHODIUM, RUTHENIUM, IRIDIUM 05
- TRENDS AND INVESTMENTS 06
- **ABOUT HERAEUS** 07

PRECIOUS METALS REVIEW Silver

47 Ag Silver 107.8682							
		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
107.000	\$/oz	30.30	-1.10%	32.50	21/05/2024	30.05	24/05/2024
	€/oz	27.92	-0.94%	30.18	20/05/2024	27.61	22/05/2024

China's record-breaking Q1 solar installations imply another strong year for silver paste. In Q1'24, China installed 45.75 GW of new solar panels, marking a 36% year-on-year increase. Q1 is typically considered a slow season for solar installations owing to the seasonal push to meet targets at the end of the previous year and Chinese New Year disruptions. The data suggests that China may be on track for another record year, with over 200 GW of installations despite more conservative official forecasts. If the pace is maintained throughout the year, global silver demand in solar photovoltaics could surpass 232 moz (source: The Silver Institute), which would mark the fifth consecutive year of record demand from the solar industry.

The silver price finished the week at \$30.30/oz, after reaching a 12-year high at \$32.50/oz on Tuesday. Silver's rise even outpaced that of gold, with the gold/silver ratio currently at 77, close to a two-year low.







27th May 2024

- GOLD 01
- SILVER 02
- PLATINUM 03
- PALLADIUM 04
- RHODIUM, RUTHENIUM, IRIDIUM 05
- **TRENDS AND INVESTMENTS** 06
- **ABOUT HERAEUS** 07

PRECIOUS METALS REVIEW Platinum

78							
Pt Platinum 195.084		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
	\$/oz	1,029	-4.47%	1,090	20/05/2024	1,016	24/05/2024
	€/oz	948	-4.34%	1,002	20/05/2024	939	24/05/2024

New Zimbabwean mine faces delays. In its interim results released last week, Tharisa, a PGM and chrome producer, noted that its Karo greenfield PGM project in Zimbabwe is expected to take longer than initially planned to reach production. The potential delay is related to government financing and pressure on the company's balance sheet owing to the decline in the PGM basket price. The project had been expected to begin ramp-up in 2025 but it may now be later. At steady-state production, the mine is forecast to produce ~80 koz of platinum annually, equivalent to ~16% of Zimbabwe's 2024 and 2025 annual production forecast of ~510 koz. Karo is the largest greenfield PGM mining project in Zimbabwe.

The correction in the platinum price last week was not too surprising,

given the speed of the rise stretching platinum's relative strength index to the most overbought level in more than a year. At that time the price reached \$1,130/oz before retreating. Based on previous highs, \$990-\$1,015/oz could be a potential support level in the short term if weakness persists. Money managers have been adding to long platinum futures positions in the last month, building a position of 1.99 moz and swinging from net short to net long platinum. Even as the platinum price spiked in recent weeks, lease rates have remained in the low single digits, indicating that there is no shortage of physical metal fuelling the recent rally.

The rand reverted to weakness last week, and platinum fell in line with it, finishing last week's trading at \$1,029/oz, down nearly \$50/oz on the previously weekly close.





27th May 2024

- GOLD 01
- SILVER 02
- PLATINUM 03
- PALLADIUM 04
- RHODIUM, RUTHENIUM, IRIDIUM 05
- **TRENDS AND INVESTMENTS** 06
- **ABOUT HERAEUS** 07

PRECIOUS METALS REVIEW Palladium

46 Dd							
Palladium 106.42		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
100.42	\$/oz	966	-3.54%	1,046	21/05/2024	963	24/05/2024
	€/oz	890	-3.35%	962	21/05/2024	888	24/05/2024

The Chinese market continues to lead the pack in BEV sales. Although the consensus is that the pace of BEV adoption will slow on a global scale as many 'easy win' sales are achieved, year-to-date sales data shows relatively strong growth in the major automotive markets, with China retaining its place at the front of the curve. To April, Chinese BEV sales grew 10% year-on-year to 1.68 million units (source: Bloomberg). BEV sales have also improved in Europe but by only 6.4% year-on-year to 442,000 units year-to-date (source: ACEA). New trade-in policies are likely to help boost BEV sales in China this year where automotive palladium demand is forecast to fall by 7% year-on-year to ~1.8 moz. As these incentives for new BEV sales start to take effect, in H2'24 Chinese automotive palladium demand could slow. A potential support for palladium demand is the option under the incentive plan to trade in ICE cars for cash towards purchasing plug-in hybrids as well as BEVs, which year-to-date have proved very popular with Chinese consumers. PHEVs have seen 86% growth in sales year-to-date, the highest of any other powertrain by a large margin. In the Chinese market, catalysed vehicles (ICE + HEV + PHEV) retain a 75% market share of new sales, which is lower than in Europe where the market share of PGM-loaded vehicles is ~88% year-to-date.

The palladium price declined along with the rest of the precious metals last week, despite it having seen far less upside than platinum, gold and silver in the last month. By the end of trading, the palladium price closed at \$966/oz, cementing another week at a discount to platinum.





27th May 2024

- GOLD 01
- SILVER 02
- PLATINUM 03
- PALLADIUM 04
- RHODIUM, RUTHENIUM, IRIDIUM 05
- TRENDS AND INVESTMENTS 06
- **ABOUT HERAEUS** 07

PRECIOUS METALS REVIEW Rhodium, Ruthenium, Iridium

44 Ir					
45 Rh Rhodium 102.005 Ruthanium 101.07 Ruthanium 101.07		RHODIUM	RUTHENIUM	IRIDIUM	
102.0055	Reporting Week	\$5,175/oz	\$435/oz	\$5,250/oz	
	Previous Edition	\$5,250/oz	\$435/oz	\$5,250/oz	

Rhodium has the most to lose from rising BEV sales. The total rhodium market is small (~1 moz annually) and the automotive catalyst sector makes up almost 90% of total demand. Automotive demand mounted a recovery in 2023, rising by 5% to ~970 koz. However, this year demand is forecast to fall back to 2018 levels as more ICE powertrains are expected to be squeezed out of the market by BEVs. As with palladium, the Chinese market carries considerable weight for rhodium demand, and the outcome of China's new trade-in programme could drive demand higher or cut the forecast, depending on whether PHEVs or BEVs prove to be more popular. Rhodium's greater exposure to the automotive industry compared to platinum or palladium means downside risk to demand is proportionally greater. Despite the forecast of a small market deficit this year, a decline in demand from the main end-use sector means the likelihood of any meaningful rally is low.

The rhodium price dipped last week to a two-month low of \$5,175/oz, while iridium and ruthenium remained stable for another week.



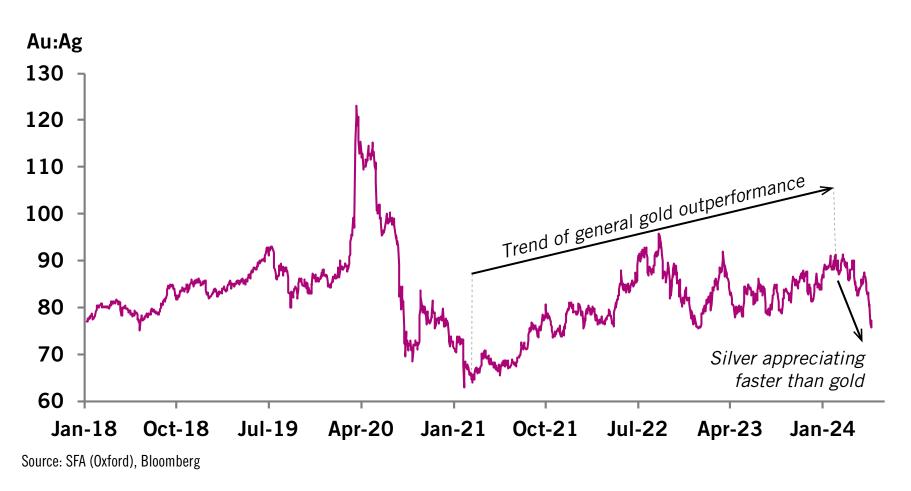


27th May 2024

- GOLD 01
- SILVER 02
- PLATINUM 03
- PALLADIUM 04
- RHODIUM, RUTHENIUM, IRIDIUM 05
- **TRENDS AND INVESTMENTS** 06
- **ABOUT HERAEUS** 07

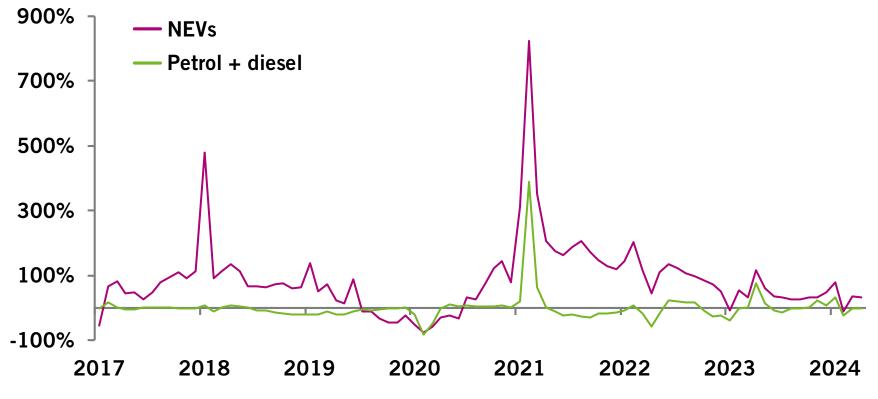
TRENDS AND INVESTMENTS

Gold:silver ratio



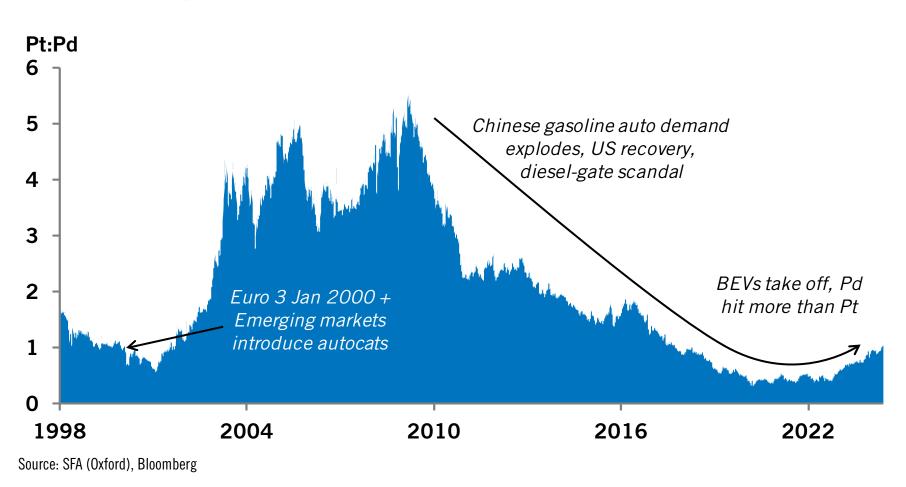
China passenger vehicle sales growth

Growth, year-on-year



Source: SFA (Oxford), Bloomberg, CAAM. Note: NEV = BEVs + PHEVs.

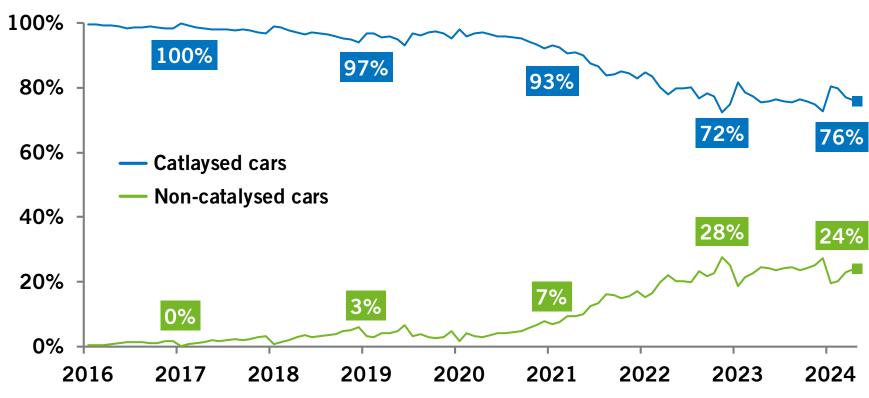
Platinum: palladium ratio



7

China passenger vehicles market share

Total market share



Source: SFA (Oxford), Bloomberg, CAAM. Note: Catalysed = ICE + HEV + PHEV, Non-catalysed = BEV + FCEV + Other.

27th May 2024

- 01 GOLD
- 02 SILVER
- 03 PLATINUM
- 04 PALLADIUM
- 05 RHODIUM, RUTHENIUM, IRIDIUM
- 06 TRENDS AND INVESTMENTS
- 07 ABOUT HERAEUS

ABOUT HERAEUS

Learn more about important trends in the precious metals markets on a weekly basis with our Heraeus Precious Appraisal. **Please subscribe:** <u>www.herae.us/trading-market-report</u>.

Heraeus Precious Metals

Europe, Middle East, Africa & other regions Phone: +49 6181 35 2750 <u>tradinghu@heraeus.com</u>

South East Asia Phone: +852 2773 1733 tradinghk@heraeus.com

USA Phone: +1 212 752 2180 tradingny@heraeus.com

China Phone: +86 21 3357 5658 <u>tradingsh@heraeus.com</u>

The Heraeus Group is a broadly diversified and globally leading family-owned technology company, headquartered in Hanau, Germany. The company's roots go back to a family pharmacy started in 1660. Today, Heraeus bundles diverse activities in the Business Platforms Metals and Recycling, Health, Semiconductor and Electronics as well as Industrials. Customers benefit from innovative technologies and solutions based on broad materials expertise and technological leadership.

Heraeus Precious Metals is globally leading in the precious metals industry. The company is part of the Heraeus Group and covers the value chain from trading to precious metals products to recycling. In addition to gold and silver, it also has extensive expertise in all platinum group metals.



The Heraeus Precious Appraisal is produced in collaboration with:

SFA (Oxford) Ltd

United Kingdom Phone: +44 1865 784366 www.sfa-oxford.com The Oxford Science Park, Oxford, United Kingdom, OX4 4GA



consulting analysts in tomorrow's commodities and technologies

Disclaimer

This document is being supplied to the recipient only, on the basis that the recipient is reasonably believed to be a professional market participant in the precious metals market. It is directed exclusively at entrepreneurs and especially not intended for the use of consumers.

The material contained in this document has no regard to the specific investment objectives, financial situation or particular need of any specific recipient or organisation. It is not provided as part of a contractual relationship. It is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment or as advice on the merits of making any investment.

This report has been compiled using information obtained from sources that Heraeus and SFA (Oxford) Ltd ("SFA") believe to be reliable but which they have not independently verified. Further, the analysis and opinions set out in this document, including any forward-looking statements, constitute a judgment as of the date of the document and are subject to change without notice.

There is no assurance that any forward-looking statements will materialize. Therefore, neither SFA nor Heraeus warrants the accuracy and completeness of the data and analysis contained in this document.

Heraeus and SFA assume no liability for any losses or damages of whatsoever kind, resulting from whatever cause, through the use of or reliance on any information contained in this document. However, in so far as a liability claim exists under German law, Heraeus and SFA shall have unlimited liability for willful or grossly negligent breach of duty.

Unless expressly permitted by law, no part of this document may be reproduced or distributed in any manner without written permission of Heraeus. Heraeus specifically prohibits the redistribution of this document, via the internet or otherwise, to non-professional or private investors and neither Heraeus nor SFA accepts any liability whatsoever for the actions of third parties in reliance on this document.

8