

# PRECIOUS APPRAISAL



01 MARKET SPOTLIGHT

02 GOLD

03 SILVER

04 PLATINUM

05 PALLADIUM

06 RHODIUM, RUTHENIUM, IRIIDIUM

07 TRENDS AND INVESTMENTS

08 ABOUT HERAEUS

# MARKET SPOTLIGHT

## Near-term headwinds for gold, longer term more upside?

**An improving view of the US economy has dented gold’s appeal.** Earlier in the year a recession was anticipated, and therefore the Fed was expected to stop hiking interest rates and start cutting them. The gold price gained as the dollar weakened and bond yields fell back, coming close to its all-time high. Now the Fed’s view is that there will not be a recession. Additionally, with sticky core inflation, the Fed could hold rates higher for longer and may even raise them some more. This has helped the dollar strengthen and seen the gold price slip below \$1,900/oz. However, even though real interest rates are now positive and bond yields are at the highest level since 2007, the gold price has held up relatively well.

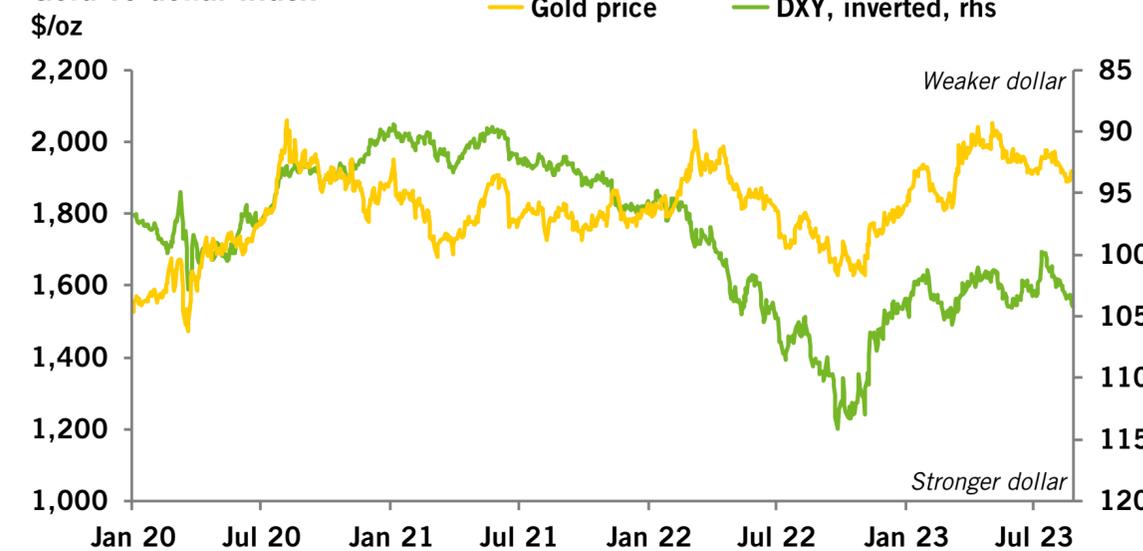
**Near term, a stronger dollar could depress the gold price.** Interest rate futures now imply a 40% chance of a further rate rise by the end of the year, when not so long ago the next move was expected to be a rate cut. Additionally, speculative positions in foreign exchange futures are very short the US dollar at a level that historically has seen a reversal and the dollar strengthen.

**However, if the US consumer falters, a recession would occur and the gold price could rebound.** Looking at US GDP growth and employment data, the US economy appears to be fine, but the economic data is not universally good. The ISM manufacturing PMI was below 50 (i.e. activity was declining) for a ninth straight month in July and industrial production contracted in May, June and July. The services side of the economy is holding up but bank lending standards are being tightened and with interest rates on loans now much higher, consumer spending is likely to slow. If consumer spending shrinks, a recession becomes almost inevitable and that would result in falling bond yields, interest rate cuts, declining real interest rates and a weaker dollar which would be positive for gold.

Gold vs US 10 year Treasury yield



Gold vs dollar index



## PRECIOUS APPRAISAL

28<sup>th</sup> August 2023

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

## PRECIOUS METALS REVIEW

### Gold

<sup>79</sup>  
Au

	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,908	0.88%	1,923	24/08/2023	1,885	21/08/2023
€/oz	1,769	1.70%	1,778	25/08/2023	1,732	21/08/2023

**Gold ETF holdings continue to decline.** Global ETF outflows have totalled 1.39 moz in August alone, taking holdings to below 90 moz and the lowest level since March 2020. Investors have been liquidating their positions, as the gold price fell from \$1,978/oz in mid-July to \$1,890/oz a month later in August. Gold investors may be biding their time until a peak in US interest rates, which since 2000 have preceded gold price rallies. The gold price bounced back from below \$1,900/oz last week as the RSI was oversold. The dollar strengthened but bond yields fell as the chance of a rate cut sooner was boosted by weak PMI flash readings in the US, hinting that the economy is slowing.

## PRECIOUS APPRAISAL

28<sup>th</sup> August 2023

01 MARKET SPOTLIGHT

02 GOLD

03 SILVER

04 PLATINUM

05 PALLADIUM

06 RHODIUM, RUTHENIUM, IRIDIUM

07 TRENDS AND INVESTMENTS

08 ABOUT HERAEUS

## PRECIOUS METALS REVIEW

### Silver

47  
Ag

	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	24.08	5.90%	24.38	25/08/2023	22.74	21/08/2023
€/oz	22.33	6.76%	22.66	23/08/2023	20.90	21/08/2023

**Silver outperformed last week**, with the price rising just less than 6% week-on-week after finding support around the June closing low. Growing expectations that China will have to implement further stimulus to bolster its economy are supporting industrial metals prices. Copper and nickel have risen by 3.7% and 4.9%, respectively, in the past few weeks. To date, economic stimulus in China following the relaxation of Covid restrictions has been relatively limited, with little direct intervention. More cracks are beginning to show in the Chinese housing market, adding to hopes of greater and more impactful measures, particularly in the industrial sector.

**Silver investors have mirrored those in gold during August.** Silver-backed bullion ETFs have seen global holdings decline by more than 4 moz in August so far. Outside of silver funds, non-commercial traders have been unwinding long positions in silver. The net long position has fallen from 219 moz in July to 39 moz as of 22 August. The silver price finished last week at \$24.08/oz, and the gold:silver ratio has declined to just above 79 as of last Friday's close.

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

# PRECIOUS METALS REVIEW

## Platinum



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	940	3.23%	952	25/08/2023	904	21/08/2023
€/oz	871	4.07%	880	25/08/2023	830	21/08/2023

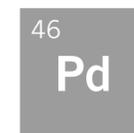
**Diesel vehicles dominate heavy-duty deliveries.** Platinum demand for heavy-duty automotive catalysts is forecast to grow by 660 koz (+9%) globally this year. This is below 2021 demand, but platinum requirements in heavy-duty applications are expected to exhibit an upward trajectory to 2030. Despite ambitious targets for electric vehicle sales from trucking OEMs, little near-term downside impact to platinum demand is expected from truck electrification. Volvo Trucks (18% of Europe and 9% of North America’s truck market share) reported that 1.2% of its Q2’23 deliveries were BEV trucks, while Traton (representing Scania, Man, Navistar and VW truck brands) saw just 0.3% of total sales from electric vehicles in H1’23. Both OEMs have goals for electric and fuel cell trucks to make up 50% of European sales by 2030. Investment in battery and fuel cell mobility is growing; however, the transformation needed to achieve this is likely to be challenging and unprecedented. In addition, growth in the Chinese HDV fleet in the next two years is expected to offset any losses in vehicle production, and platinum demand elsewhere in the world.

In China, battery swapping in HDVs is gaining potential, a technology that can alleviate the need for the lengthy charging times required for large truck batteries which is a primary sticking point for adoption. Approximately 50% of the 36,000 electric heavy-duty trucks sold in China in 2022 were fitted with swappable batteries (source: ICCT). Many of these, though, were part of off-road fleets at mines, ports and similar applications where proximity to swapping and charging nodes can be guaranteed. Trucks equipped with this technology may present a downside risk to platinum demand in the longer term. However, it is most likely that diesel will continue to dominate in China for the foreseeable future.

Platinum rose to \$940/oz last week, having found support at around \$895/oz after falling to a 10-month low the week before.

# PRECIOUS METALS REVIEW

## Palladium



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,227	-2.18%	1,297	23/08/2023	1,215	25/08/2023
€/oz	1,137	-1.39%	1,199	23/08/2023	1,128	21/08/2023

**Zimbabwe’s largest palladium producer improved output in Q2’23.**

Zimplats, the largest PGM-producing mine in Zimbabwe, upped palladium production by 8% quarter-on-quarter in Q2’23 owing to increased operational efficiency and improved power stability thanks to a power import agreement struck during the period. Metal in final product grew to 62.5 koz from 57.9 koz in the first quarter. Zimbabwe has suffered power supply issues similar to the load-shedding in South Africa this year, which had an impact on PGM production at the country’s mines. Zimbabwe is expected to grow production of palladium by 5% year-on-year to 440 koz this year, equal to ~7% of global primary production.

The palladium price continued to be range-bound last week, trading between \$1,225/oz and \$1,300/oz. Eventually, platinum’s sister metal finished last week more than 2% lower at \$1,227/oz.

## PRECIOUS APPRAISAL

28<sup>th</sup> August 2023

01 MARKET SPOTLIGHT

02 GOLD

03 SILVER

04 PLATINUM

05 PALLADIUM

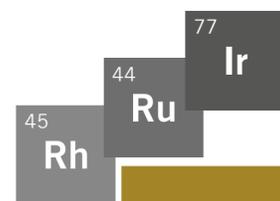
06 **RHODIUM, RUTHENIUM, IRIDIUM**

07 TRENDS AND INVESTMENTS

08 ABOUT HERAEUS

## PRECIOUS METALS REVIEW

### Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$4,950/oz	\$475/oz	\$4,950/oz
Previous Week	\$4,700/oz	\$475/oz	\$4,950/oz

#### The US pumps more money into thrifted iridium in electrolyzers.

The Department of Energy last week awarded \$34 million to numerous projects, aimed at reducing the cost of 'clean' hydrogen to \$1/kg in the next 10 years. The recent funding is part of more than \$122 million allocated since 2021, and is used to finance the development of lower-iridium catalysts. Along with the lower costs associated with reduced PGM use, thrifted the amount of iridium used per electrolyser enables the industry to expand rapidly. Demand for electrolytic hydrogen is expected to grow from <1 mt in 2021 to 9-14 mt by 2030 (source: IEA), whereas primary iridium supply is forecast to remain flat at best, meaning this thrifted will be key to enabling green hydrogen production at the level required by current government policy.

Last week, the rhodium price moved higher, reaching parity with iridium. Both metals now stand at \$4,950/oz, while ruthenium remains at \$475/oz.

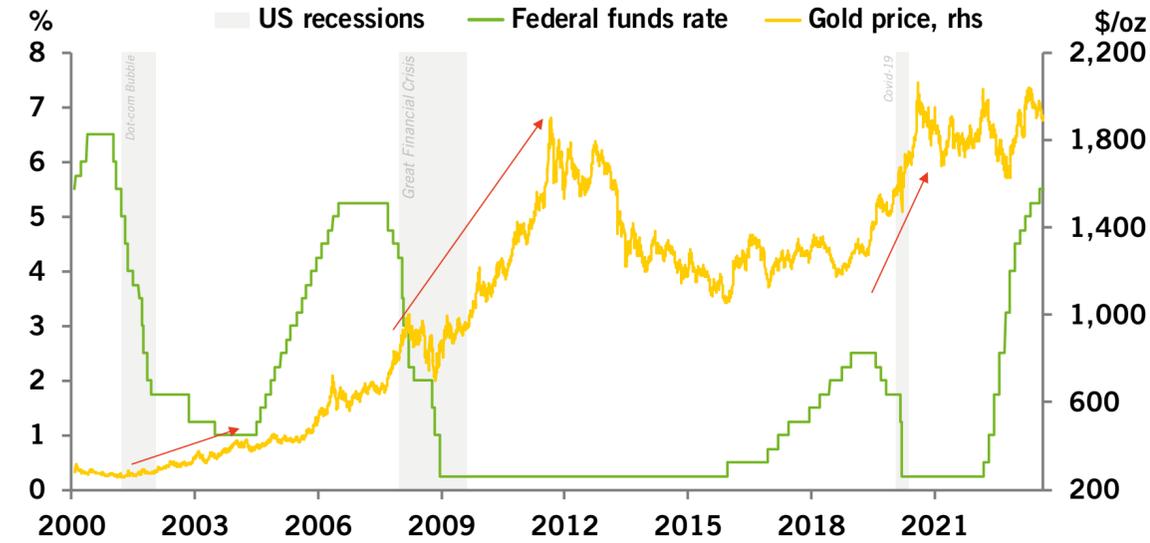
# PRECIOUS APPRAISAL

28<sup>th</sup> August 2023

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

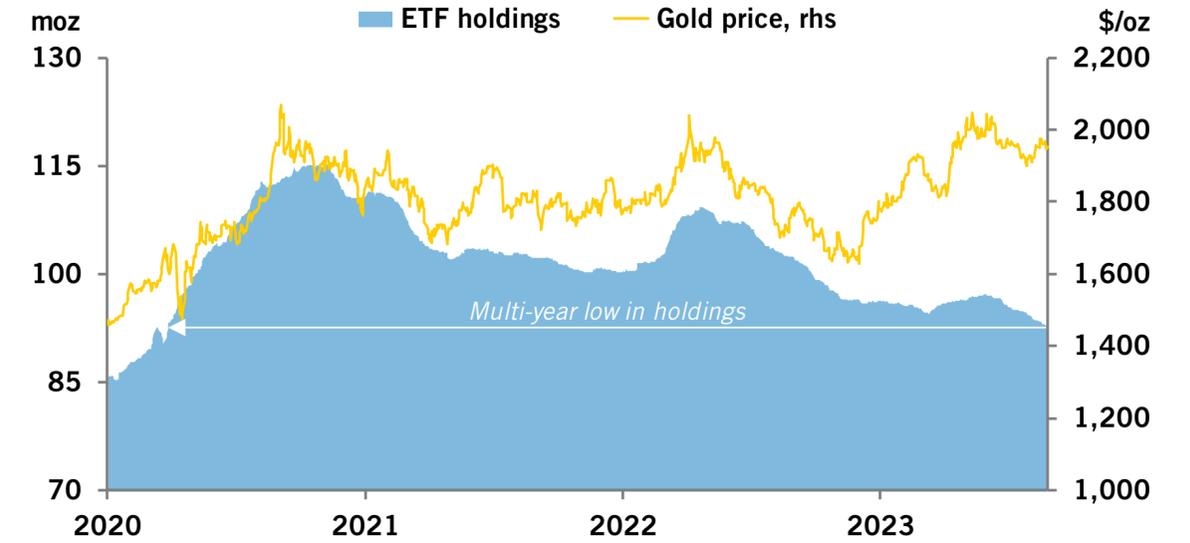
# TRENDS AND INVESTMENTS

## Gold price vs. Federal Funds Target Rate



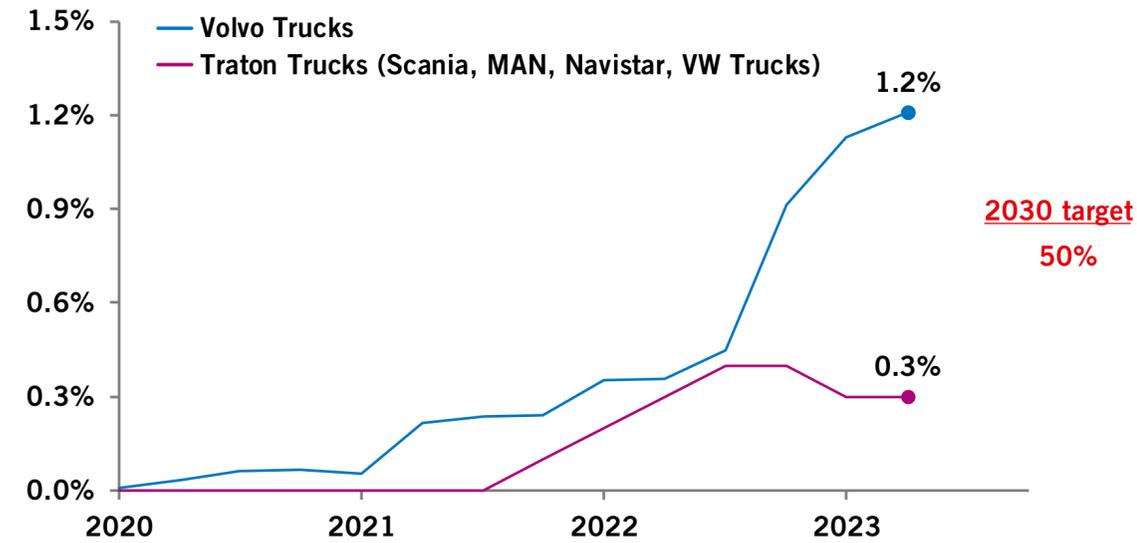
Source: SFA (Oxford), Bloomberg

## Gold ETF holdings



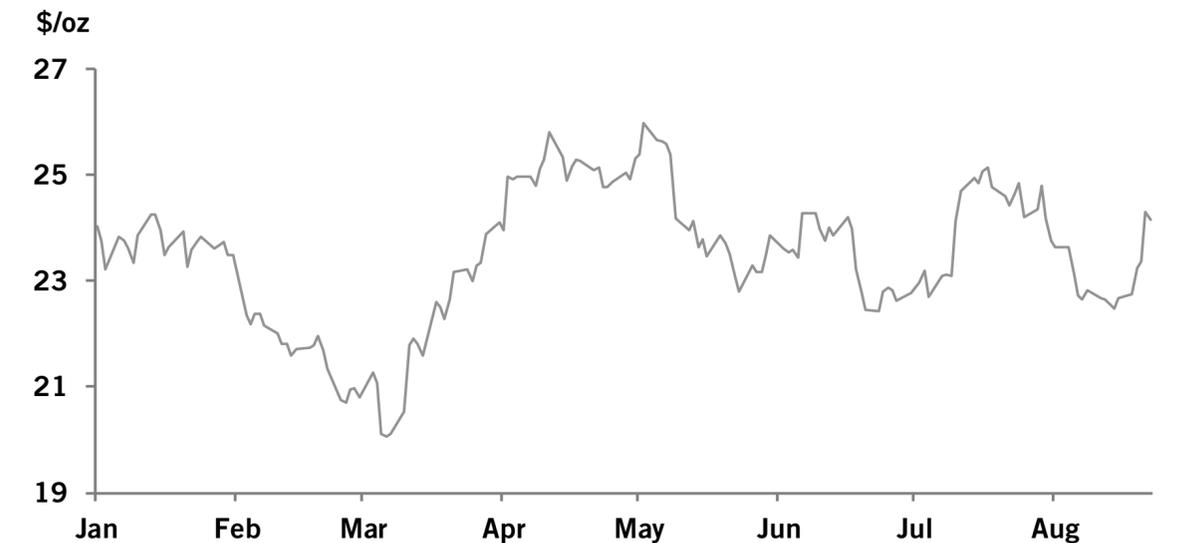
Source: SFA (Oxford), Bloomberg

## Electric truck sales as a proportion of total



Source: SFA (Oxford), company reports

## Silver price



Source: SFA (Oxford), Bloomberg

# PRECIOUS APPRAISAL

28<sup>th</sup> August 2023

- 01 MARKET SPOTLIGHT
- 02 GOLD
- 03 SILVER
- 04 PLATINUM
- 05 PALLADIUM
- 06 RHODIUM, RUTHENIUM, IRIDIUM
- 07 TRENDS AND INVESTMENTS
- 08 **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: [www.herae.us/trading-market-report](http://www.herae.us/trading-market-report).**

## Heraeus Precious Metals

### Europe, Middle East, Africa & other regions

Phone: +49 6181 35 2750  
[edelmetallhandel@heraeus.com](mailto:edelmetallhandel@heraeus.com)

### South East Asia

Phone: +852 2773 1733  
[tradinghk@heraeus.com](mailto:tradinghk@heraeus.com)

### USA

Phone: +1 212 752 2180  
[tradingny@heraeus.com](mailto:tradingny@heraeus.com)

### China

Phone: +86 21 3357 5658  
[tradingsh@heraeus.com](mailto:tradingsh@heraeus.com)



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](http://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.