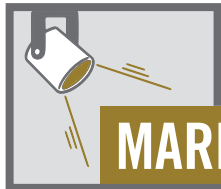


HERAEUS PRECIOUS APPRAISAL

Heraeus

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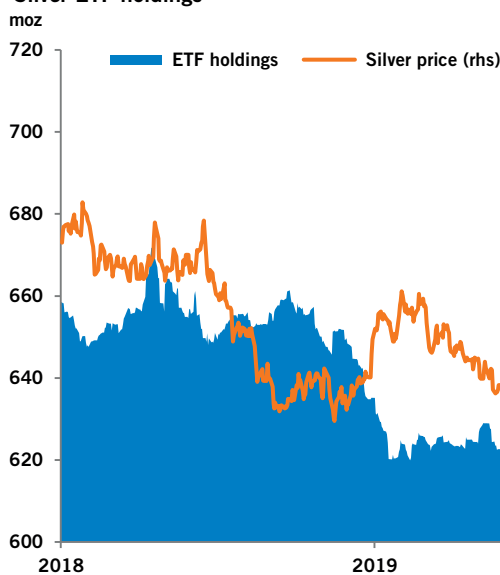


MARKET SPOTLIGHT

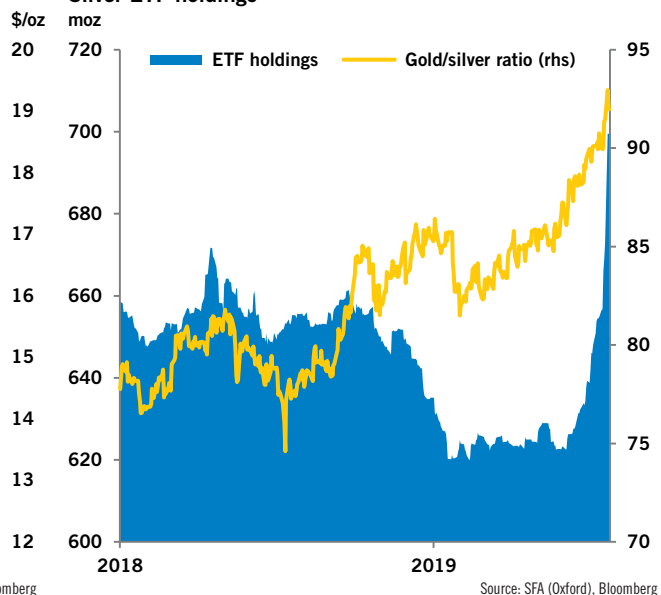
Silver is cheap and ETF investors have finally taken notice

Global silver ETF holdings have grown by 13%, or 79.9 moz, since the start of June to reach a new high of 703.8 moz. By region the largest gain was in North America: 45.8 moz to 494 moz, an increase of 10%. The largest percentage increases were in Europe: 36% or 21.9 moz in the UK and 53% or 10.6 moz in Germany. Speculative futures positioning was 112 moz net short silver at the end of May, but that has turned into 274 moz net long position. The silver price has risen by 12% since then, whereas gold is up 9%.

Silver ETF holdings



Silver ETF holdings



Silver investment demand was poor in the first few months of this year. ETF holdings declined in January and then went sideways until May. Silver coin sales were relatively weak. The macroeconomic environment has not been supportive of industrial silver demand either. Industrial silver usage is unlikely to expand much given the slowdown in global trade, even if photovoltaic demand grows this year. Economic growth is expected to slow this year in China, Japan, the US and Europe, the four largest regions of industrial silver demand. Meanwhile, the gold price was rising on safe-haven demand. The gold:silver ratio reached 93.3 in July, its highest level since 1992, but in the last couple of weeks silver has finally started to outperform gold.

Silver is looking precious again and has shaken off its industrial malaise. ETF holdings have reached a new high, but speculative futures positioning is well below its highest level, leaving room for further upside. It is unclear whether it was Brexit concerns, geopolitical tensions or central banks moving towards policy easing that finally spurred investors' interest. The gold:silver ratio is now 86.5, still well above its long term average of 63. **Silver's outperformance could continue as investors and technical traders increase their exposure now that the price has broken out to new highs for the year.**



PRECIOUS METALS REVIEW

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Au Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,419	-0.37%	1,434	25/07/2019	1,411	25/07/2019
€/oz	1,276	0.52%	1,290	25/07/2019	1,264	23/07/2019

Gold price eases as dollar strengthens. The Fed is likely to begin monetary easing next week, but the ECB may not be far behind. This is only to be expected given that the flash PMIs for July show that manufacturing across Europe continues to weaken. German manufacturing is leading the way and bunds hit another record low negative yield. Unsurprisingly, investors have been looking at gold (and silver) as a safe haven and buying ETFs. The dollar has been strengthening despite the expected rate cut from the Fed, but gold is still holding above \$1,400/oz and closing in on €1,300/oz as the euro weakened.

Central bank gold buying continued in June. The Russian central bank purchased 542 koz or 16.9 t of gold in

June (source: IMF) which has taken its total holdings to 2,207 t. In the first half of 2019, the Russian central bank bought 94 t of gold, which is about 10% lower than in the first half of last year. Globally, central banks have made a strong start to 2019, buying an estimated 381 t compared to 180 t in H1'18 and putting them on track to exceed last year's total. The World Gold Council has conducted a survey of central banks. Of the emerging market and developing economy central banks surveyed, 11% indicated that they intend to increase their gold reserves over the next 12 months, so purchases are likely to continue. **Central bank buying, as well as monetary easing by the Fed and the ECB, should support gold.**

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Ag Silver

	Close	Weekly change	High	Date	Low	Date
\$/oz	16.39	1.72%	16.65	25/07/2019	16.18	23/07/2019
€/oz	14.74	2.65%	14.99	25/07/2019	14.46	23/07/2019

Some primary silver producers are reporting strong first-half production figures. Hecla Mining increased its production by 16% for both the second quarter and the first half, to 3.0 moz and 5.9 moz respectively. Hochschild Mining had the second-highest half-year production in the company's history in H1'19 at 10.2 moz. Fortuna Silver Mines' Q2'19 production was 2.4 moz and output in the first half of the year was 4.6 moz. This puts output ahead of the company's guidance of 8.2-9.0 moz for the year.

However, taken together the improvements here are not enough to make up the anticipated drop of 4.5 moz in Fresnillo and Buenaventura's combined production.

There was a small amount of profit-taking in silver ETFs late last week following a huge inflow of 26.3 moz in one day earlier in the week. Silver looks set to continue its outperformance of gold.

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Pt Platinum

	Close	Weekly change	High	Date	Low	Date
\$/oz	861	1.74%	885	25/07/2019	844	23/07/2019
€/oz	774	2.60%	797	25/07/2019	754	23/07/2019

Primary platinum production is expanding this year. Anglo American Platinum is processing work-in-progress stock that was held up last year, so its refined production will be higher in 2019 than in 2018. With platinum sales of 1,009 koz in H1 being 8% (90 koz) below the amount that was refined, higher sales can be expected in H2. Royal Bafokeng Platinum reported that its platinum production was up 21.3% in the first half as the Styldrift mine continues to ramp up its operations. Overall South African platinum output is expected to rise by 4% this

year to 4.6 moz, which, along with weak demand, is keeping the market in surplus.

Platinum has been gaining on gold. Despite being the market with the weakest fundamentals, the platinum price has been following gold higher and even outperforming it slightly. This has brought gold's premium to platinum down from a record high of \$613/oz in late June to \$542/oz.



PRECIOUS METALS REVIEW

46 Pd Palladium

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,529	1.55%	1,546	24/07/2019	1,500	22/07/2019
€/oz	1,374	2.41%	1,389	25/07/2019	1,336	22/07/2019

Global light vehicle sales will decline this year. Car companies and their parts suppliers have been revising down their projections for light vehicle sales this year following falling sales in the US, Europe and China. Peugeot predicts a 1% dip in vehicle demand in Europe this year and a 7% contraction in China. Car parts suppliers Continental and Faurecia have lowered their expectations for global light vehicle production to declines of 5% and 4% respectively.

Clearly, shrinking car sales are a negative for palladium demand, but with some regions of China tightening emissions standards this year, catalyst loadings are rising which offsets the impact from lower sales to some extent. Nationwide implementation of emissions legislation in China (China 6) and India (Bharat 6) will take place next year. Consequently, the market is forecast to remain in deficit and therefore the palladium price is set to remain high. The market is tight, but with palladium trading well above \$1,500/oz it is unclear whether the weaker auto sales this year have been fully priced in. With the third quarter typically being a somewhat weaker period for demand owing to the northern hemisphere summer holidays, further price weakness is possible in the near term.

India's push for BEVs spares petrol cars and palladium demand. In India the motor vehicle market is dominated by motorcycles and the government has decided to focus its push for electrification on two- and three-wheeled vehicles. They make up the majority of sales, but contribute very little to autocatalyst demand. Last year passenger car sales were 3.4 million, whereas sales of two-wheelers were 21.6 million and three-wheelers were 0.7 million. In 2017, the Transport Minister announced his intention that India move to 100% electric cars by 2030, which would have been extremely difficult to achieve. The latest proposal is to have only electric three-wheelers operating in the country by 2023 and only electric two-wheelers by 2025. That is still a challenging target given the need to expand the charging infrastructure. It is also unclear how much it will help to reduce pollution since coal power provides 75% of Indian electricity supply. With the introduction of Bharat 6 emissions legislation in 2020 along with growing car sales, palladium demand in India is projected to increase by 9% next year.

45 Rh 44 Ru 77 Ir Rhodium, Ruthenium, Iridium

	Rhodium	Ruthenium	Iridium
Reporting week	\$3,550/oz	\$250/oz	\$1,460/oz
Previous week	\$3,525/oz	\$250/oz	\$1,460/oz

Expect higher sales of small PGMs from Anglo American in H2. Sales of rhodium were larger than refined production during the first half of the year. However, sales of ruthenium and iridium were 90% of refined output in H1 which means that sales should increase in the second half of the year. In H1 estimated sales were 148 koz of

rhodium, 42 koz of iridium, and 138 koz of ruthenium. Anglo produces ~30% of global rhodium supply, 22% of iridium and 24% of ruthenium.

The rhodium price added \$25/oz, but ruthenium and iridium prices remain unchanged.

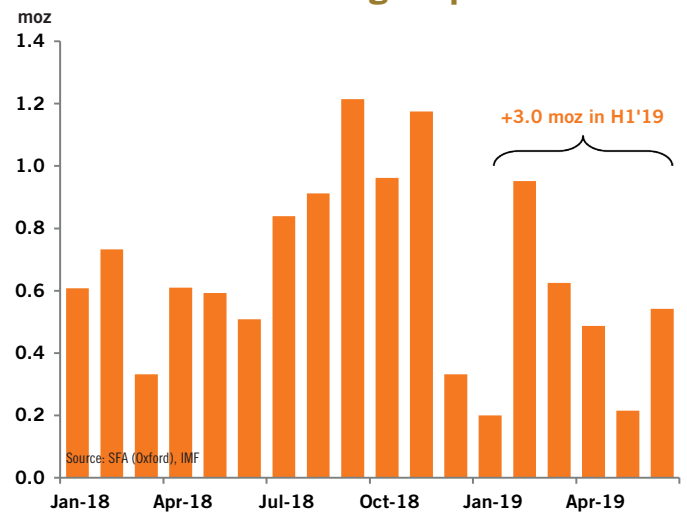


TRENDS AND INVESTMENTS

Gold premium to platinum



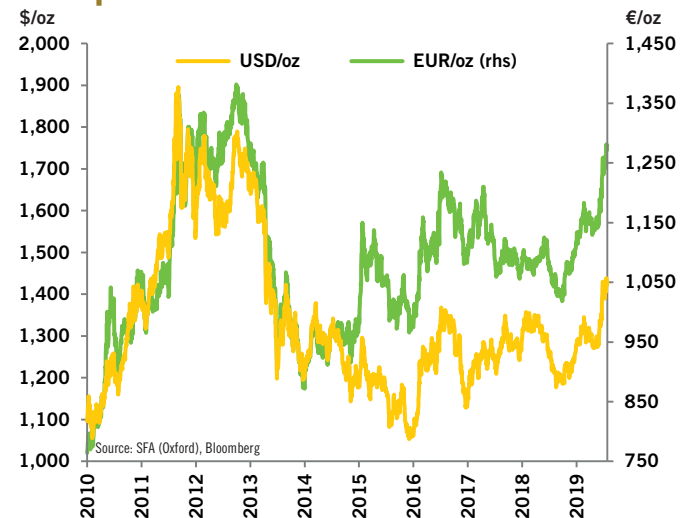
Russian central bank gold purchases



Gold ETF holdings



Gold prices



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