HERAEUS Precious Appraisal

Ed. 29 10th September 2018

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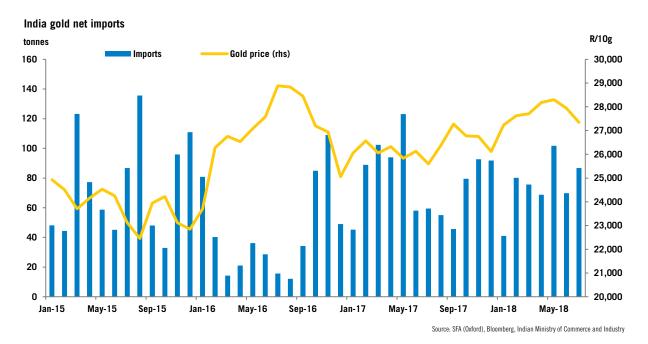


Difficulties in India may cut Q4 gold jewellery demand

In Q4, gold jewellery demand typically increases in China and India (the two largest markets) with holidays and festivals supporting purchases. In China, the National Day Golden Week holiday is the first week in October. In India, Dhanteras and Diwali, which are in the first week in November, are considered auspicious times to purchase gold and are followed by the wedding season.

Indian consumers are also price sensitive and with the rupee price rising in the first half of 2018, gold imports and jewellery demand have declined compared to the same period last year. Since then jewellers have been taking advantage of the lower price in July and August to stock up, with an increase in gold imports in July likely to have continued into August.

However, there are some adverse trends in India as the falling rupee in the second half of August lifted the local price and reduced buying interest. If the local gold price continues to climb, sales will slow down. Rural Indians are significant purchasers of gold jewellery, and this year's monsoon has been erratic with severe flooding in Kerala in southern India and a shortfall of rain in the north-east. Kerala has by far the highest per capita spending on gold in India, so with the local economy badly affected by the floods it is likely gold purchases will be lower than normal.



In contrast to the difficulties in India, **gold jewellery sales in China have been improving** during 2018 despite a slowing economy and easing retail sales growth.

PRECIOUS METALS REVIEW

Au Gold

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	Close	Weekly change	High	Date	Low	Date	
\$/o	z 1,197	-0.25%	1,207	06/09/2018	1,190	04/09/2018	
€/o	z 1,035	-0.04%	1,038	06/09/2018	1,028	05/09/2018	

Gold moved little last week despite other safe havens gaining as emerging market (EM) stocks and currencies continued to fall. Sentiment on EMs was not helped by the news that South Africa has entered a recession for the first time since 2009. Also weighing on EMs was the Federal Reserve receiving more reasons to raise rates when the ISM Manufacturing PMI hit a 14-year high. Furthermore, President Trump looked as though he might move quickly to install tariffs on \$200 billion of Chinese goods following the conclusion of the consultation period last Thursday, particularly as July data showed a widening of the US trade deficit. This reinvigorated fears that escalating trade exchanges will impact the global economy. Gold moved below \$1,200/oz early in the week before recovering a little as it still performs a role as a currency hedge, particularly in the EMs, and if a risk-off sentiment persists the gold price may finally see some improvement.

Ag Silver								
		Close	Weekly change	High	Date	Low	Date	
	\$/oz	14.21	-2.12%	14.55	03/09/2018	14.01	04/09/2018	
	€/oz	12.28	-1.92%	13.31	04/09/2018	11.65	04/09/2018	

The silver price dropped to a new two-year low as the emerging market fallout proved to be particularly bad for industrial metals. Silver lost 2.5% last Tuesday, compared to 0.7% for gold, falling to an intraday low of \$14.01/oz and pushing the gold:silver ratio above 84 (the highest since 1993). Base metals were similarly hit by macroeconomic (emerging market and trade war) fears, both copper and nickel also fell 2.5%. A repeat of last Tuesday's decline would put silver in reach of its nine-year low of \$13.74/oz. Without a recovery of gold, sentiment for silver will remain subdued but it could also benefit from a turnaround in EMs or reduced trade tensions.

Silver demand from solar panel production is likely to receive a boost from sales to the EU, as the region ends anti-dumping measures (tariffs imposed on excessively

cheap imported solar panels). The measures were first introduced in 2013 and have been allowed to expire as of 3 September by the European Commission. This could lead to a drop in solar panel costs in the EU, accelerating demand growth. The EU installed 6 GW of solar power in 2017, according to SolarPower Europe, approximately 7% of total solar power installations. Global silver demand from photovoltaics (PV) was expected to decline by approximately 10 moz in 2018 due to the reduction in support from the Chinese government. However, Chinese PV manufacturers have continued to expand their production capacity as they compete on price for market share, accelerating the drop in prices from ongoing technological advances. This puts them in a good position to benefit from the lower barriers to the EU market which could result in extra growth there for the remainder of this year and in 2019.

Platinum Pt Weekly change Close High Date Low Date 04/09/2018 780 797 06/09/2018 767 \$/oz -0.94% 675 -0.66% 684 06/09/2018 664 04/09/2018 €/oz

Expansions in oil-refining capacity are expected to require additional platinum over the next few years. An expansion of 120,000 barrels per day (b/d) at the Persian Gulf Star Refinery has been announced by the National Iranian Oil Refining and Distribution Company, while the Nigerian National Petroleum Corporation has said it will be constructing 200,000 b/d of capacity in Nigeria. Platinum is used as a catalyst in the reforming and isomerisation stages of gasoline production, with relatively large quantities needed for each new installation. However, much of the platinum can be recovered at the end of the catalyst's lifecycle so platinum demand follows the growth of **2 | HERAEUS PRECIOUS** APPRAISAL global refining capacity, i.e. platinum demand is roughly proportional to the net change in capacity. This sector is expected to continue to support platinum demand as oil-refining capacity is estimated to grow by 4.2 million b/d in the period 2017-2020, according to the 2017 World Oil Outlook, driven by expansion in the Middle East and Asia-Pacific regions. Exact platinum requirements vary on technology used and refining details but this expansion in capacity is roughly equivalent to platinum demand of 300 koz. This use of metal in the oil industry does not change the near term outlook for the platinum market which remains in surplus.

PRECIOUS METALS REVIEW



Palladium

Ę		Close	Weekly change	High	Date	Low	Date	
	\$/oz	989	1.28%	990	07/09/2018	956	04/09/2018	
	€/oz	854	1.49%	855	07/09/2018	826	04/09/2018	

The recent recovery in the palladium price compared to other metals is justified by fundamentals. Palladium has dramatically outperformed the other precious metals over the last month. The price premium over platinum grew from \$50/oz one month ago to peak at over \$200/ oz last week. The poor performance of palladium in January-August was driven by macroeconomic forces (fell with equities early in the year and impacted by the strong dollar recently). However, the market remains in a large deficit. The recent price gain is a typical seasonal move for palladium which sees increased buying on the return of industrial consumers following the summer break. The price is now at a level that seems more justifiable.

US auto sales grew in August year-on-year but details reveal underlying weaknesses. Although headline sales may have risen 1.2% year-on-year, according to Bloomberg, this is largely the result of hurricane Harvey impacting sales in August 2017. All the major automakers except Ford missed analysts' growth estimates as many of them have been reducing incentives on new vehicle purchases. The strong shift from sedans to SUVs has also caused difficulties for automakers, as car models that were key just two years ago have seen their market share plummet; this is particularly true for the Japanese manufacturers who have somewhat specialised in sedans. The rise of SUVs does benefit palladium as these are typically larger vehicles, but the weak overall auto market is restraining demand growth.

hodium, Ruthenium, Iridium

Rh		Rhodium	Ruthenium	Iridium
	Reporting week	\$2,400/oz	\$280/oz	\$1,440/oz
	Previous week	\$2,390/oz	\$280/oz	\$1,440/oz

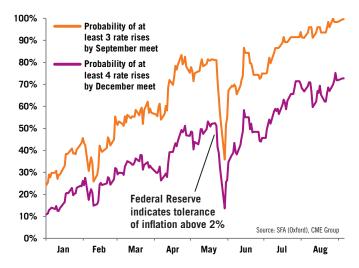
Expansions to caustic soda production are expected to create demand for ruthenium and iridium. The caustic soda market has experienced a tumultuous 12 months since US production was hit by hurricanes in Q3'17. and plants using a mercury-based process had to close in Europe at the end of the year. This has pushed spot prices to extremes, which in turn has prompted remaining plants to maximise their utilisation rates and so prices have now started to come off. However, in the US producers have reportedly been raising their prices throughout 2018, with Olin Corporation increasing them again as recently as late August. The global market could accommodate extra capacity and plans for expansions

are in place in the US and Europe. Ruthenium and iridium alloy coatings are used in the process to protect the electrodes from the harsh environment. Demand has been elevated for a few years as Europe replaced a proportion of its mercury plants, but further expansion, plus a degree of metal required for ongoing operation, should result in continued demand for the next few years.

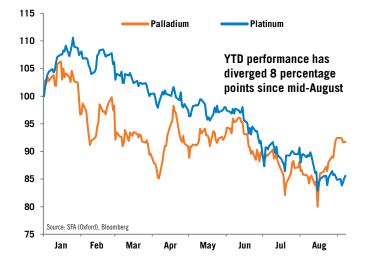
There was not a lot of price action last week; prices for ruthenium and iridium remained unchanged, but rhodium gained \$10/oz and is seeing ongoing demand in a tight market which suggests the price will continue to rise.

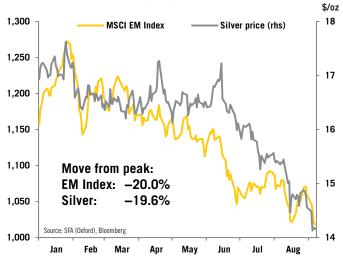
RENDS AND INVESTMENTS

2018 Federal Reserve rate rise forecasts Silver and emerging market stocks

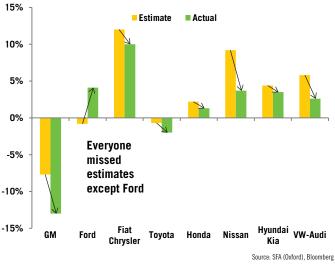


Palladium price performance





US August car sale growth year-on-year



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