HERAEUS PRECIOUS FORECAST

6th February 2019
Near-term sentiment has shifted to the euro, amid market expectations that the Federal Reserve will stop raising rates. However, US job numbers are still good, so one more rate rise is possible which would benefit the dollar. Additionally, economic growth seems to be slowing more in Europe than in the US, which also favours dollar strength this year, since the ECB will most likely delay making its first rate rise.

Despite the potential for dollar strength this year, the precious metals should see some price upside from safe-haven demand. Both political and economic uncertainty are rising and stock market volatility has returned which should drive safe-haven demand for gold and silver. Silver could outperform gold as the gold:silver ratio is very high and does not tend to stay at such elevated levels for long.

PGM prices are mostly expected to trade higher this year, although the platinum price is likely to remain relatively weak. However, there is the potential for strikes in South Africa which could impact PGM production and prices later in the year. Platinum, which has a significant surplus market this year, may see only modest price upside. Palladium has a more diversified supply base than the small PGMs, but the market is tight, leaving it vulnerable to a supply squeeze. The small PGMs rely on South Africa for over 70% of global mine production, so price volatility could also be a feature for them this year.
Eurozone growth needs to improve for the euro to show more strength

The euro could struggle to gain much ground against the dollar this year. In 2017, the euro strengthened as the Eurozone economy outperformed expectations. The opposite occurred in 2018 as tax cuts and looser fiscal policy saw US GDP growth accelerate and the dollar strengthen. The euro started 2018 at 1.20 $/€ and strengthened to 1.25 $/€ in January. It held above 1.22 $/€ until late in April, at which point it rapidly weakened. US fiscal stimulus kicked in in Q2’18 and GDP growth reached an annualised 4.2% quarter-on-quarter, the fastest since 2014. The euro reached its low point in November at 1.12 and then recovered slightly to end the year at 1.14.

Relative economic performance will again play a role, but this year the balance of strength between the euro and the US dollar looks set to be decided by which economy slows the least. Disappointing economic data in the US, jobs aside, have led the futures market to slash the odds placed on any further rate rises by the Federal Reserve this year to zero, which would be bearish for the dollar. The Fed’s own projections in December suggested two rate rises. However, the Eurozone has not been immune to slowing growth, with the economy weakening towards the end of 2018. If the ECB delays the point at which it starts to raise interest rates then the euro could weaken.

Political posturing is negatively impacting economies. The US is suffering from the stand-off between Congress and the President over the budget which led to a partial shutdown of the US government that lasted for more than a month. Temporary funding has been provided to reopen the affected departments and pay wages, but a second shutdown could occur if no permanent agreement is reached by 15 February. Meanwhile, in Europe Brexit is an ongoing challenge with no exit deal yet concluded between the EU and the UK even as economic growth slows. Should the UK leave the EU with no agreement in place, trade and economic growth could be hit harder.

Trade talks could also influence the exchange rate. The US is pursuing balanced trade with China with the potential for additional tariffs to be implemented should talks fail. There are also further negotiations planned with the EU later in the year. US imports of European-made cars could be on the agenda again. Failure to come to a trade agreement would likely negatively impact the Eurozone and the euro more than the US and the dollar.

On balance the situation favours the dollar, with the exchange rate trading between 1.20 $/€ and 1.05 $/€. The euro could recover later in the year if Eurozone growth stabilises and trade talks avoid harmful tariffs. The ECB would then remain on track to begin raising interest rates, so the euro could strengthen even if the Fed does continue to raise rates since the Fed is more likely to be nearer the end of its rate-rising cycle.
The gold price does face headwinds in 2019 from positive real interest rates and slowing inflation. Rising bond yields in the US, in particular, give investors a higher yielding alternative to gold. Inflation expectations have dropped sharply recently as inflation is contained, so the real interest rate is turning positive, which is less favourable for gold. However, in Europe and Japan interest rates and bond yields remain very low.

Sentiment has shifted against further Federal Reserve rate rises and therefore to a weaker dollar, which is positive for gold, owing to a lower growth outlook and more dovish Fed. The market is currently projecting no chance of any further rate rises by the Fed in 2019. However, while the market reaction seems overdone, both on the negative view of the US and on the positive view of Europe, some dollar weakness is possible near term.

Comments by the Fed Chairman suggest the Fed interest rate is now near the neutral interest rate, indicating a more cautious approach to rate rises this year, but at least one further hike seems possible. The US job market data are good and the rate of wage increases is rising, so although broader inflation is contained this may not be a strong enough reason to prevent the Fed from making one further rate rise. The ECB has ended its asset purchases, but is in no hurry to begin raising interest rates as economic growth is also slowing in the Eurozone. Gold could struggle to make progress later in the year if the Fed does continue raising interest rates.

Near term, gold has upside momentum with a seasonally strong period for the price ahead. Further market turbulence and confrontational politics could keep gold in investors’ sights. The gold price is expected to trade in a range between $1,225/oz and $1,450/oz, with the outlook broadly for further upside, though no doubt with some pullbacks along the way.

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The technical picture has improved somewhat for silver with the price strength shown late last year narrowing the gold:silver ratio. The ratio remains very high by historical standards and does not typically remain at such a high level for long periods, so this year could see silver regain some ground against gold. In order to do that, investment demand will need to pick up. Physical investment was lacklustre in 2018, with ETF holdings falling by 9 moz (1.7%) and weak bar and coin demand, particularly in the US where coin sales were down over 10% (-2.4 moz) compared to 2017.

Total silver supply is forecast to be marginally higher in 2019 than last year. Mine supply is estimated to have been little changed in 2018, but is predicted to edge up this year. Primary silver production looks likely to be stable, while growth in zinc production is anticipated which should lift silver by-product output. Scrap supply could also improve somewhat if the silver price continues to rise as expected.

Global silver demand should recover in 2019, after weak bar and coin demand and a drop in photovoltaic usage in China contributed to lower total consumption in 2018. Despite several of the world’s largest economies being forecast to have slower growth this year, prospects for demand in some key end-uses look brighter.

Photovoltaic demand is set to return to growth in 2019 after contracting in 2018. Last year China reduced feed-in tariffs and removed subsidies after new installations exceeded the current five-year plan target, which cut silver demand. This year the outlook is more positive with growth in solar installations expected across many markets which should lift silver demand even with ongoing efforts to reduce the amount of silver used. Electronic and electrical requirements are also expected to climb as the amount of silver used in wires and switches grows, with demand increasing across a variety of end-uses.

In uncertain times silver could benefit along with gold from a shift to safe-haven assets this year and, as the higher beta metal, modestly outperform gold. Rising political and economic uncertainty and volatile equity markets could encourage investors to look again at precious metals as a store of value. This should help to lift the silver price which is forecast to trade in a range between $14.50/oz and $20.00/oz this year.

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The platinum market’s fundamentals are weak. Total supply is projected to grow slightly more than gross demand this year, resulting in a large market surplus of over 700 koz. Primary and secondary supply are both forecast to increase, while industrial uses are the main driver of demand growth this year, as jewellery demand is projected to be flat with risks to the downside and autocatalyst demand edges down.

Automotive platinum demand is expected to decline slightly this year. After a large fall in the diesel market share of passenger cars in Western Europe last year, the rate of decline is expected to ease, but with overall car sales forecast to grow by only around 1%, diesel car sales are therefore projected to dip slightly. In addition, Japanese automotive demand is projected to drop this year and the heavy-duty diesel market in China is expected to cool after two very strong years. However, automotive use in India and other emerging markets is forecast to increase this year.

Globally, platinum jewellery demand is expected to be flat at best in 2019. Demand in China, the largest platinum jewellery market, remains challenged. Shifting consumer tastes mean that generic product sales are likely to continue to shrink while fashionable branded pieces, where sales are growing, are lighter in weight, resulting in an overall reduction in demand. The low price has helped to support jewellery demand in the US and Europe so moderate increases in sales are anticipated in those regions this year. In India, the market is likely to continue to expand, albeit from a relatively low base.

Industrial demand is forecast to rise this year owing to increased requirements in the petroleum and chemical sectors, as the requirements in glass and other end-uses are expected to be slightly down. Petroleum refining capacity expansions are predicted to increase in China, North America and the Rest of the World. Capacity expansions for the production of chemicals in China and the US should also lift demand.

Global platinum supply is estimated to expand by 1% in 2019 owing to shafts ramping up production in South Africa and the US. Output from South Africa is forecast to increase by 1% while yield from North America is expected to be up 12%. Partially offsetting this is an anticipated decline in Russia owing to depletion of alluvial sources, while output from other regions should be stable. Overall recycling is forecast to grow modestly as platinum recovered from spent autocatalysts increases, outweighing lower jewellery recycling caused by the low price environment.

Producers in South Africa are unlikely to make significant production cuts this year. The Sibanye-Lonmin merger could ultimately result in some closures and Impala’s announced rationalisation is still expected to take place, reducing the amount of high-cost production, but this is not expected to have much impact on output in 2019. In addition, the weak platinum price is being compensated for by strong prices for all the other PGMs, so the revenue from all the metals produced is now higher than the mines’ costs.

Industrial unrest could negatively impact PGM output in South Africa this year. AMCU members at Sibanye’s platinum mines staged a one-day strike in sympathy for their fellow union members who are striking over wages at Sibanye’s gold mines. The union may try to extend this strike. In addition, the three largest producers, Anglo American Platinum, Impala and Lonmin, will begin to negotiate a wage agreement with the unions representing their workers towards the middle of the year. Risks to demand include slower growth in Europe denting car sales, and further decline in Chinese jewellery as economic growth slows.

With supply growth exceeding demand growth this year, the platinum price is likely to remain weak, although the price could be pulled higher if gold performs well. Any strike action would likely have only modest upside for the price given the large surplus. The price is forecast to trade between $950/oz and $700/oz.
Market fundamentals are solid, with a sizeable deficit forecast, and the price is expected to continue to climb. Palladium supply is projected to increase more than gross demand which means that while the market deficit will not be quite as large as last year, it will still be over 600 koz. Market tightness persisted throughout 2018 and into 2019 and the price has hit new highs early in the year.

Palladium ETFs have seen outflows of around 2.2 moz over the last few years which have helped to supply the market. Globally, ETFs now hold 720 koz which could theoretically be supplied to the market. Although there are other sources of stock, ETF holdings’ contraction to low levels could provide fresh upside momentum to the price.

There are some opposing forces that could lead to significant price volatility this year. Short-term lease rates have been over 30% and the futures market remains in backwardation, demonstrating an ongoing need for ingot. While mining companies mostly produce sponge for industrial uses, other refiners are providing ingot to the market, so it is unclear how much longer the tightness will last and therefore how much further the price could rally. Sentiment on the demand outlook could change as economic growth is slowing and Chinese auto sales declined in 2018 for the first time in over 20 years. However, there is also the possibility of a strike at South African mines which, should it be prolonged, could give the price fresh upside impetus. As a result, the price is forecast to trade in a range between $1,130/oz and $1,650/oz.

There are some downside risks to demand considering that economic growth is forecast to slow in China, the US and Europe this year. US trade talks with China are ongoing and there remains the possibility that tariffs could be raised on US imports of European cars.

Industrial demand remains on a downward trend as the high price continues to incentivise thrifting in electrical applications and lower dental use.

Palladium supply is set to rise modestly this year as greater production is forecast in North America, South Africa and Russia, and recycling expands. Palladium recovered from recycled autocatalysts continues to grow as an increasing number of vehicles reach the end of their lives and the high palladium price incentivises collection and processing of those spent autocatalysts.

It is possible that a strike could occur at South African mines this year. Wage negotiations are due to start later in the year at the three largest South African palladium producers, and the AMCU has already called a one-day strike of its platinum mining members at Sibanye in sympathy for the gold miners who are on strike over wage negotiations.

Palladium production is more geographically diversified than platinum or the small PGMs where production is concentrated in South Africa, but in a tight market any loss of supply could push the price higher.

**High price volatility expected, especially if supply is constrained**

**Palladium**

**Average 2018:** $1,033/oz  
**Low 2018:** $860/oz  
**High 2018:** $1,277/oz  
**Price change 2018:** 19%

**Forecast 2019**  
**Low 2019:** $1,130/oz  
**High 2019:** $1,650/oz

Palladium demand comes mostly from the automotive sector and is anticipated to grow modestly in 2019. While US light vehicle sales are expected to drop slightly this year, sales are predicted to increase in China, Europe and other regions. In addition, palladium demand in China is likely to rise ahead of the introduction of tighter emissions legislation next year.
The rhodium market is expected to remain tight in 2019. The market is forecast be close to balance and both supply and gross demand are projected to increase slightly this year. Rhodium ETF holders have taken profits, reducing their holdings by over 50% to 37 koz in 2018 and leaving a shrinking pool of visible stock. Lease rates remain elevated, indicating tight physical supply, which is supportive of higher prices. The rhodium price is therefore estimated to trade in a range between $2,000/oz and $3,250/oz.

Mine production of rhodium is dominated by South Africa which produces around 80% of global supply. Global output is anticipated to be marginally higher in 2019 as South African production is expected to rise slightly, while production in other regions such as Russia and North America is forecast to be stable. Rhodium recovered from recycled autocatalysts is forecast to continue to grow as more vehicles reach the end of their lives and high palladium and rhodium prices incentivise the recycling of gasoline autocatalysts, particularly in North America. With miners’ wage negotiations coming up this year it is possible that there could be a strike in South Africa which would impact rhodium production proportionally more than platinum or palladium. This would push the market into deficit, tightening the market further and giving the price renewed upside momentum.

Global rhodium demand is forecast to expand by around 2% this year as both autocatalyst and industrial demand are set to increase. Rhodium used in autocatalysis represents approximately 80% of global consumption and this is the sector contributing most of the growth. Automotive demand is accelerating in emerging markets as light vehicle sales rise. However, demand is stagnant in developed markets where light vehicle sales growth is weak, although there has been an increase in catalyst loadings to tackle NOx emissions. This reliance on the auto sector puts rhodium demand at risk should light vehicle sales growth miss expectations, and is a downside risk for the price.
Demand growth supports higher prices

The ruthenium price saw strong growth in the first six months of last year (+25%, from $200/oz to $250/oz). The price continued to climb at a more sedate pace in the second half, reaching $285/oz in September, the highest point in 10 years. It remained there for most of the last quarter, but ended the year at $280/oz.

Hard disk drives (HDDs) continue to use ruthenium. Differing technologies are competing for market share but Western Digital’s latest development, microwave-assisted magnetic recording, continues with the ruthenium-containing materials used in current disks. It was released for sampling late in 2018, and the expectation is that mass production will begin in 2019. This technology step is expected to keep HDDs competitive compared to solid-state drives, certainly for the expanding cloud data storage market.

Chemical catalyst demand for ruthenium was robust in 2018, for the manufacture of feedstocks for nylon in China. Capacity build continues, to satisfy growing domestic demand for nylon materials across a range of sectors.

Positive demand trends are supportive of the price trading in a range between $200/oz and $350/oz. South African mines produce approximately 90% of global ruthenium supply, so should a strike occur this year, lower supply would result in a strong price reaction to the upside.
Iridium

The iridium price saw a very steep rise from April to June last year (+37%, from $1,040/oz to $1,425/oz) and ended the year at $1,470/oz, close to its all-time high of $1,480/oz.

Iridium crucible demand is supported by the use of lithium tantalate crystal material, used in SAW (surface acoustic wave) filters; these are widely used electronic components, one of whose main uses is in smartphones. In the near term, demand for new crucibles has slowed as crystal material sales have been far lower than expected when production capacity was increased. While there have been widespread reports of weakening smartphone sales growth, the component content is set to continue increasing as sophistication (rising numbers of 5G phones) supports long-term demand growth. Crystal material producers continue to optimise production to reduce costs, but iridium crucibles are expected to remain part of the process.

Electrode coatings, using both iridium and ruthenium, in the chloralkali and mineral processing industries continue to be in strong demand, but the rising metal prices are of concern in these sectors.

Iridium tips for gasoline vehicle engine spark plugs can confer a combination of longer plug lifetime and increased combustion efficiency, especially in the latest emissions-efficient engines. Demand for new gasoline vehicles (especially hybrids) is expected to continue increasing for several more years, as diesel's decline continues in Western Europe and as battery electric vehicles remain unattractive for many consumers, sustaining this small sector of iridium demand.

Iridium is used as a minor component in platinum jewellery alloys, so demand from this end-use has declined and, with the current weakness in the platinum jewellery market, it is expected to continue to fall.

Iridium output from South Africa is estimated to be slightly higher in 2019 than 2018, in line with increased production of platinum. With little change to the overall demand outlook this year and an already very high price, the iridium price may not make much more upside progress. However, similar to rhodium, around 80% of global iridium supply comes from South Africa, so should a strike occur this would tighten the market and lift the price further. Therefore, the price is predicted to trade in a range between $1,150/oz and $1,750/oz.

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<tr>
<th>Year</th>
<th>Average 2018</th>
<th>Low 2018</th>
<th>High 2018</th>
<th>Price change 2018</th>
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<td></td>
<td>$1,296/oz</td>
<td>$975/oz</td>
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<td>51%</td>
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Source: Heraeus

Ir Forecast 2019

Iridium

Average 2018: $1,296/oz
Low 2018: $975/oz
High 2018: $1,480/oz
Price change 2018: 51%
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Heraeus Precious Metals – a global business unit within the Heraeus group – is a world-wide leading provider of precious metals services and products. We combine all activities related to our comprehensive expertise in the precious metals loop – from trading to precious metals products to recycling. Heraeus Precious Metals is among the world’s largest refiners of platinum-group metals (PGMs) and an authority in industrial precious metals trading.

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