

PRECIOUS METALS FORECAST 2017

EUR/USD

Ø 2016: 1,1067

High 2016: 1,1527

Low 2016: 1,039

USD IS EXPECTED TO BE STRONGER IN 2017 THAN EUR

Over the past two years, the Euro has been trading against the US Dollar in a 14 cent range between 1.04 €//\$ and 1.17 €//\$ - determined by a zero % interest rate policy and exceptional monetary easing on both sides of the Atlantic Ocean. We found ourselves on a similar EUR-USD level at the end of 2015 as at the end of 2016, i.e. at the lower end of the trading range and with the same expectations regarding interest rate increases in the US and unchanged rate levels in Europe. Instead of the expected four rate hikes in the US, the Federal Reserve (Fed) actually delivered only one, which in fact weakened the US Dollar over the course of the year.

However, things are different for 2017: a new President with the promise of a major program for infrastructure as well as tax cuts has already catapulted up inflation expectations and bond yields. This puts the Fed in the comfortable position of being able to increase interest rates in 2017 in several steps. At its last meeting in December, the Fed indicated they would raise interest rates an expected three times this year. ECB President Draghi, on the other hand, announced at the last ECB meeting that bond purchases would be extended until the end of 2017 with a volume of more than 60 billion € per month and that interest rates would remain at the same or even lower level until at least 2018.

Regarding the economy, growth in the US has accelerated considerably and is expected to be more than 2% in 2017 and thus stronger than in the EU where 1.6% is anticipated. Due to this macroeconomic environment and the increasingly divergent central bank policies, we expect the Euro-Dollar to mark further lows this year and to fall below parity. Over the course of the year, however, the high US budget deficit and the approaching debt ceiling could come into the view of the market again. In addition, the real economic results of "Trumponomics" are likely to only become visible after a certain period and to disappoint the current high expectations. The effects of Trump's policy with regards to protectionism, immigration and the confrontation with China remain to be seen. Unless no new (or old) political crises in the EU arise, the Euro could benefit from a weakening US Dollar towards the end of this year. Considering Brexit negotiations, political instability in Italy and Spain, as well as critical elections in France, Germany and the Netherlands, the extent of the Euro's comeback is likely to be limited. We are expecting a low of 0.95 €//\$ for 2017 and 1.08 €//\$ at year end.

GOLD

Ø 2016: 1247

High 2016: 1366

Low 2016: 1060

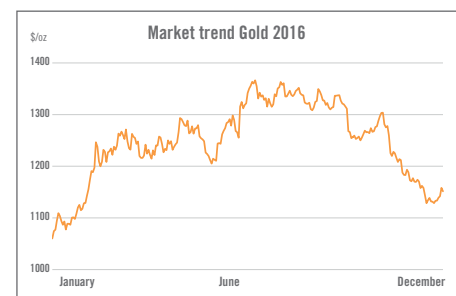
DOUBTS ABOUT SUSTAINABLE TURNAROUND OF INTEREST RATES MAKE GOLD ATTRACTIVE

Markets at the beginning of 2017 are characterized by rising interest rates in the US, record highs in stock markets, political uncertainty in the EU and a lack of clarity regarding the policy of US President Trump.

Expectations for both inflation and economy in the USA had already risen last summer – before the surprising outcome of the presidential election - with the result that interest rates climbed, thus putting the Gold price under pressure.

Better growth forecasts fuelled investors' appetite for risk. Losses in bonds and "safe havens" such as Gold were the outcome: By the end of 2016 the metal's price had fallen to 1,151 \$/oz. Even if this development is likely to characterize the coming months, we do not expect there to be a fundamental change in interest rates. A look at the real interest rate, i.e. the interest rate adjusted for inflation, is of avail. As long as there is no discernable increase, the losses in Gold should also only be temporary. In an environment that is shaped worldwide by extremely low base rates, it seems unlikely that the US central bank is launching a radical

change, which would strengthen the US Dollar and thus weaken the domestic economy. The Fed has recently signalled three rate hike steps in 2017. Janet Yellen, the Fed chairman, has left open in December



whether Donald Trump's presidency will lead to a tightened pace of monetary policy. The great promises of the President-elect bear a certain potential for disappointment. If the announced investment programs are not entirely implemented and fail to take full effect, respective market reactions are likely. Trump's view on trade agreements and potential consequences of proclaimed protectionist measures may accentuate the situation.

The political year of 2017 is dominated by important elections in France and Germany. Even if these decisions are politically significant, we expect short-term effect on the Gold price at most. The Brexit referendum and the US election, as well as the vote on the constitutional reform in Italy have only left temporary marks on the markets. With the exception of the performance of the British Pound, they were completely different than originally expected.

Speculation about possible import restrictions by the world's two largest physical buyers, India and China, already weighed on the Gold price towards the end of last year. In order to reduce capital outflows from their nations, both countries are considering import bans for the precious metal. The former largest consumer, India, has already gained experience with similar measures in the past. The monetary reform, adopted in November, could now be

expanded to the Gold market and the local premium for Gold has already increased as a result.

Impulses from the supply side, on the other hand, could support the Gold price: Gold mines have already begun to reduce their production and at the same time are investing less in new mining projects. Equally, the availability of scrap gold has already fallen significantly in the fourth quarter of last year.

Against this background and based on the current price level, we are cautiously optimistic about Gold's performance in 2017. In the first half of the year, we consider a decline to 1,060 \$/oz - the low of 2015 - as possible but no do not rule out another hike up to 1,300 \$/oz in the course of the year.

SILVER

Ø 2016: 17,08

High 2016: 20,60

Low 2016: 13,79

ROBUST DEMAND IS LIKELY TO SUPPORT SILVER'S PERFORMANCE

At the beginning of last year Silver traded at its lowest level but was gaining in value over the course of the following months. With an annual performance of +14.7%, it was one of the best performing assets, also clearly outperforming Gold. As a result, the Gold-Silver ratio improved from over 76 to just under 72.

We expect Silver to continue appreciating in value in 2017 as well:

The political climate remains to be a certain guarantee for high demand for "safe havens". Several geopolitical crises persist: there are elections in at least two core countries of the EU (France and Germany), Brexit negotiations as well as unresolved debt problems. Trump's domestic and foreign policy is also likely to cause negative surprises. In particular, the approaching debt ceiling and high budget deficit in the US have the potential to withdraw confidence in the US Dollar and to revive interest in precious metals. This could result in a scenario seen similar in 2011 when the creditworthiness of the US was downgraded by the rating agencies and Silver rose to 49 \$/oz.

Additionally, the pace of interest rate hikes by the Federal Reserve Bank (Fed) is likely to remain moderate with two to three increases and inflation will, in line with market expectations, increase significantly. This results in an overall positive environment for precious metals and in particular for industrially used metals such as Silver.

The physical market has seen a deficit for four consecutive years which is expected to persist in 2017. The output from mines decreased for the first time in 12 years last year and is antici-

pated to further decline. This is the result of mine closures and production cuts due to inefficiency and low base metal prices (silver is often a by-product). The supply volumes from recycling are likely to remain on the same low level as last year due to the still relatively low price.



On the demand side, we expect to see the same solid inflows into ETFs as in 2016. In contrast to European demand (+ 14%), however, global demand for bars, coins and jewelry decreased in 2016. With a view to the positive economic expectations in the US, the optimistic consumer confidence in China as well as value-oriented demand in India, investment demand should pick up again in 2017. Industrial demand from the photovoltaic sector reached a new record high in 2016 and will continue to grow and support the Silver price as a result of the worldwide expansion of renewable energies - even if US demand under Trump should decline.

From a technical perspective, we expect to see an upward outbreak from the downward trend (in place since July 2016) in the second half of the year at the latest - and a trading range between 15 \$/oz and 23 \$/oz for the full year.

PLATINUM

Ø 2016: 985

High 2016: 1172

Low 2016: 817

PLATINUM WITH SUPPLY SURPLUS

After falling to a 7-year low in January 2016, Platinum experienced a temporary recovery last year. While trading at prices below 900 \$/oz, the metal reached its high in August with 1,193 \$/oz. Gold's performance as well as the strong US Dollar, which weighted down the Platinum price to close to 900 \$/oz in December, are likely to remain substantial drivers of supply and demand in the current year.

The emission scandal as well as discussions about the future of the internal combustion engine had little to no effect on the demand for Platinum from the automotive industry in the past year. However, this is likely to change. In the important European market, the diesel share of new car registrations already fell to below

50% in 2016 - a trend that seems to persist. The CAR Institute (Center Automotive Research) anticipates by now a diesel market share of less than 40% by the end of 2017.



Discussions about the limited use of diesel vehicles in larger cities are reinforcing this change.

The second important source of demand for Platinum, the jewelry industry, is also giving little reason for optimism. In China, the most important jewelry market, demand fell by about 20% in 2016 already. Though steadily growing, demand from the Indian jewelry industry was unable to compensate for the decline. However, global demand from the jewelry sector is likely to stabilize at the lower level, starting to grow again as of 2017 in single-digit values (%).

The consumption in the other industrial applications, ranging from the chemical and petrochemical sectors to the electrical, glass and medical industries, hardly changed at all. The individual segments are too marginal to have any crucial impact on the price development.

On the supply side, multi-year contracts in the South African Platinum industry have virtually eliminated the risk of possible supply shortages due to strikes in 2017. At the current price level of between 900 and 1,000 \$/oz, more than 30 t or 1 million ozs of a total of approximately 135 t or 4.4 million ozs are no longer profitable for the primary Platinum producers in South Africa.

Considering this, we are likely to see a slightly lower Platinum production in South Africa this year, which in the medium term could support the price again. The high diesel share in the European vehicle fleet, which is now nearing the end of its life cycle, will lead to a further increase in recycling volumes.

Expectations for a further depreciation of the South African Rand and the respective higher sales prices for producers are rather medium-term oriented and by trend of minor impact for our forecast period. With regards to the influence by investors, we expect only limited effect. On the one hand, fundamental data gives little incentive for new exposure, while on the other hand the liquidation of long positions appears to be unattractive at the current price level.

With an overall expectation of stable supply and declining demand for 2017, we expect to see a slight supply surplus again. To forecast the Platinum price, we also need to consider Gold's performance, as well as the current strong US-Dollar. We therefore predict Platinum to trade in a range of 820 \$/oz to 1,050 \$/oz, with an average of 950 \$/oz.

PALLADIUM

Ø 2016: 612

High 2016: 769

Low 2016: 470

PALLADIUM: HIGH PRICE LEVEL TO BE DEFENDED IN 2017

We had already anticipated Palladium's potential in our previous forecast, yet not the pace with which it ensued. Following the disappointing performance in 2015, Palladium started 2016 with prices below 500 \$/oz. All the more remarkable was the rise of the metal and the significant increase in value, peaking at 780 \$/oz at the end of November. Palladium worked itself up in several waves: First, in spring, climbing to approximately 640 \$/oz and then, after a summer break, to about 700 \$/oz. The temporary downtrend in autumn then ended with Trump's victory in the US presidential elections and a temporary upswing to almost 780 \$/oz. Whether this level can be sustained in 2017 depends on various influencing forces:

Palladium's performance will continue to be dominated by the automotive industry. Demand from this segment, which has risen significantly in recent years, has resulted in a gross demand volume of nearly 8 million ozs, which is substantially more than the primary supply from mines of approximately 7 million ozs. Only with the ever-increasing recycling of auto-catalysts, which is now responsible for about 1.8 million ozs per annum, can the gap be closed. The automotive markets in the US and China were the main drivers for growth of demand in 2016. In 2017, increase is likely to be much flatter. Due to tax benefits expiring partially at the end of 2016, many car purchases in China had been preponed. The country's car sales nowadays represent the biggest market worldwide and though more restrained than last year will continue to increase.

In the second most important market, the US, the positive economic environment is likely to lend continuous support to the automotive industry. The new administration of President Trump will probably be unable to implement all proclaimed plans, thus bearing a certain potential for disappointment. Taking into account the changes in other important sales regions, an overall similarly high demand should therefore be expected for 2017. Future driving technologies beyond the combustion engine will not affect the consumption scenario in the short to medium term.

In the long term, however, we will have to adapt to the coming changes. The complexity of possible effects does not allow for a serious evaluation at this stage.



Applications beyond the automotive industry, absorbing around 2 million ozs are spread over the chemical, electronics and dental sectors. Due to price development and technological changes, a slight decline in consumption of approx. 100,000 ozs is to be expected for 2017.

On the supply side slowly growing primary output as well as continuously growing recycling volumes will lead to a slightly improved supply situation in Palladium. Once again, the market will pay particular attention to Norilsk Nickel, the world's largest Nickel producer (Palladium is extracted as by-product). After a slight decline in 2016, production volumes may increase again by about 200,000 ozs to the level of 2015, alternatively they also have the option to sell existing stocks.

The bottom line is that the supply deficit could be reduced by 300,000 ozs to 1 million ozs versus 2016. Decisions by ETF investors are likely to be influenced by the development of interest rates in the US Dollar area as well as by a positive consumption environment. Since both factors are priced in already, we only expect minor impulses for 2017.

Since Palladium decoupled from Gold's performance as well as currency effects, we expect the metal to trade in a range of 585 \$/oz to 850 \$/oz in 2017, with an average value of 725 \$/oz.

RHODIUM

CAUTIOUS POSITIVE OUTLOOK FOR RHODIUM IN THE MEDIUM TERM

Rhodium showed by comparison a notable performance in 2016. In the course of the year the metal appreciated by "only" 15%. The overall trading range, however, was wider than 200 \$/oz, which is rather remarkable in the current environment.

Yet there were also several longer periods, in which the price hardly moved or when there was no movement at all. Generally, the reaction of the market to price moves became much faster: Rallies were used for Rhodium selling, thus restricting the upturn, while dips were immediately used for purchases, resulting likewise in a stabilization of the market.

Industrial players became somewhat unsettled by this rapidly changing environment, as no real trend was discernable. Overall, both the automotive as well as the chemical industry were signi-

ficantly more active than in the past. The mining environment in South Africa and Russia has also changed as relatively low stock levels meant an absence of regular sales. New output is sold relatively quickly due to the pressure of a positive cash flow.

From a long term perspective, Rhodium has found a bottom in the past 1.5 years but is still in a downward trend. The average price of this period is equivalent 1,050 \$/oz, which is almost 300 \$/oz above the current level.

Nevertheless, we are cautiously positive for Rhodium in the medium term provided that industrial demand remains stable and investors' interest in Rhodium picks up again. We expect prices to range in 2017 from 700 \$/oz to 950 \$/oz.

RUTHENIUM

LIMITED POTENTIAL FOR RUTHENIUM PRICES

Ruthenium's weak performance in the first half of 2016 continued seamlessly in the second half of the year. Unfortunately, there are still few market-influencing factors adding spirit back to the metal. The market is still lacking new applications or stronger demand from existing consumers. The data storage industry continues to be the largest source of demand. Even though more and more data is being stored and overall demand has picked up as a result of this, the high availability in the market prevented any

positive impact on the price. On the contrary, at the end of the year the metal came even under further pressure, when a number of market participants wanted to sell off their positions, thus weighing on the already low price.

Despite the somewhat greater industrial demand of the past four months, we see limited potential for the Ruthenium price and hence expect a range of 30 \$/oz to 45 \$/oz in 2017.

IRIDIUM

SURPRISING DEVELOPMENT IN IRIDIUM

Iridium's development was rather surprising: by trend it performed as we had anticipated in our H2 report for 2016. However, the appreciation of 35% between July and the year end was rather astonishing. Though the number of purchases was low, the volumes caught the market by surprise, as respective supplies were simply not available.

Due to the small size of the market, Iridium is not prepared for such transactions and reacted accordingly. Since the standard business, e.g. in the chemical, automotive and medical industry, has developed positively as well, prices were driven even higher. We are now trading on a 3-year high and it is not foreseeable that the price will decline any time soon as availability is still severely restricted. For the next 12 months we expect a price range of 625 \$/oz to 800 \$/oz.

TRADING SITES



Heraeus Metals Germany GmbH & Co. KG

Phone: +49 (0) 6181 / 35 2760

E-mail: edelmetallhandel@heraeus.com



Heraeus Metals New York LLC

Phone: +1 212 752 2180

E-mail: tradingny@heraeus.com



Heraeus Metals Hong Kong Ltd

Phone: +852 2773 1733

E-mail: tradinghk@heraeus.com



Heraeus Metals Shanghai Ltd

Phone: +86 21 3357 5679

E-mail: tradingsh@heraeus.com

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