

USD per ounce of gold



USD per ounce of silver



EURUSD



Source: Thomson Financial; graphs by Degussa.

Precious metals prices

| | Actual (spot) | Change against (in percent): | | |
|--|---------------|------------------------------|------|------|
| | | 2 W | 3 M | 12 M |
| I. In US-dollar | | | | |
| Gold | 1.492.6 | -0.8 | 7.8 | 22.9 |
| Silver | 17.5 | 0.0 | 15.9 | 23.4 |
| Platinum | 914.4 | 4.3 | 10.2 | 9.4 |
| Palladium | 1.742.7 | 4.6 | 12.6 | 61.6 |
| II. In euro | | | | |
| Gold | 1.341.6 | -2.1 | 9.4 | 25.0 |
| Silver | 15.8 | -1.3 | 17.7 | 25.4 |
| Platinum | 821.9 | 3.1 | 11.8 | 11.1 |
| Palladium | 1.566.0 | 3.2 | 14.2 | 64.0 |
| III. Gold price in other currencies | | | | |
| JPY | 162.159.0 | 0.8 | 8.1 | 18.3 |
| CNY | 10.541.6 | -2.0 | 11.2 | 24.5 |
| GBP | 1.157.2 | -5.1 | 5.7 | 21.7 |
| INR | 105.558.9 | 1.9 | 10.7 | 17.6 |
| RUB | 95.403.0 | -1.9 | 9.4 | 19.3 |

Source: Thomson Financial; calculations by Degussa.

OUR TOP ISSUE

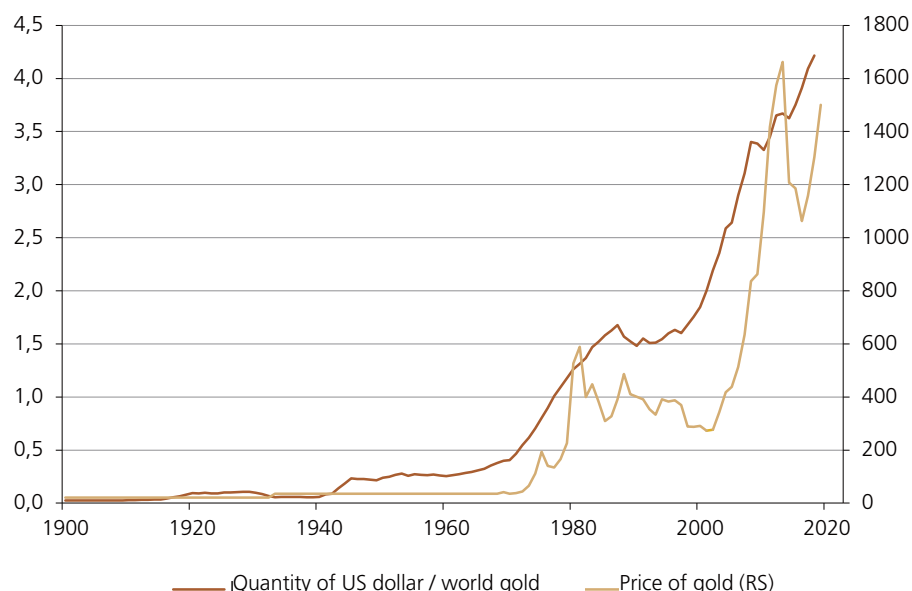
This is a short summary of our fortnightly **Degussa Marktreport**.

THE INFLATONARY SUPPLY OF UNBACKED US DOLLARS AND THE PRICE OF GOLD

Let us talk about the relation between the US dollar price of gold and the quantity of US dollar. In fact, one would think that it is, economically speaking, a rather straightforward relationship: All you need is to compare the supply of physical gold and the quantity of US dollar. If the increase in the quantity of US dollar exceeds the increase in the supply of gold, one would expect gold to become more expensive in US dollar terms (other things being equal); and if the increase in the supply of gold exceeds the increase in the quantity of US dollar, the gold price in US dollar terms should go down.

1 Generous US dollar supply drives gold price up

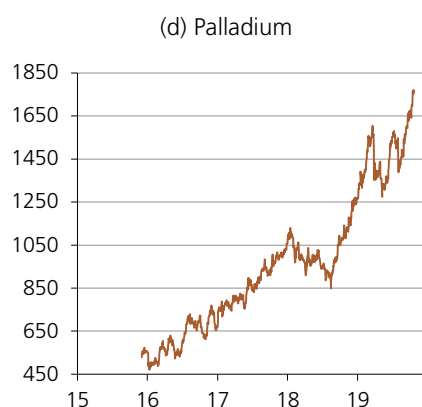
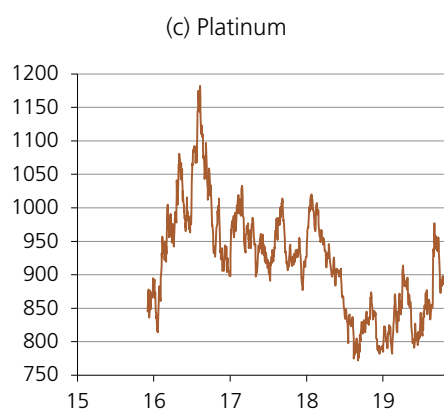
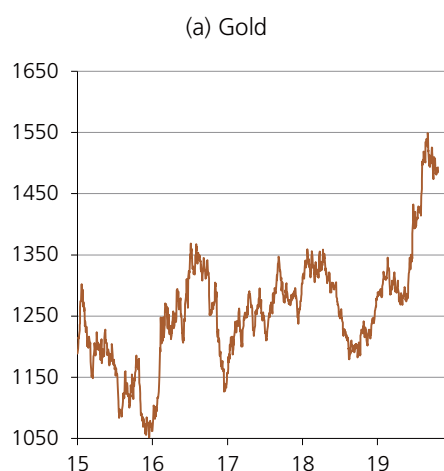
Quantity of US dollar relative to world gold and gold price (USD/oz)



Source: USGS, Federal Reserve of St. Louis; calculations Degussa. Series are indexed (1900 = 100).

In the period from 1900 to 2018, the increase in the quantity of US dollar was around 6.4 per cent per year on average (compound rate), while the increase in the physical supply of gold was just 1.8. This would suggest that, over time, the price of gold in US dollar terms has traded upwards. And indeed it has, as the chart above shows. Most notably, the price of gold has been (more or less) traded upwards since the early 1970s; before that the price of gold had been

Precious metal prices (USD/oz) in the last 4 years



Source: Thomson Financial; graphs by Degussa.

fixed vis-à-vis the US dollar (in other words: US dollar had been an equivalent to a fixed weight of physical gold).

The chart depicts the ratio between (i) the quantity of US dollar and the world's physical gold stock and (ii) the US dollar price of gold. As the chart indicates, the two series had a positive correlation since the early 1970s. In other words: The higher the quantity of US dollar relative to physical gold was, the higher was the gold price in US dollar terms. As noted earlier, this is precisely what one would expect. Moreover, it suggests that gold has remained closely associated with what is going on with the US dollar. Or, to be more precise: Investors continue to consider gold, even well after its "official demonetisation", as a form of money or at least as a reliable store of value.

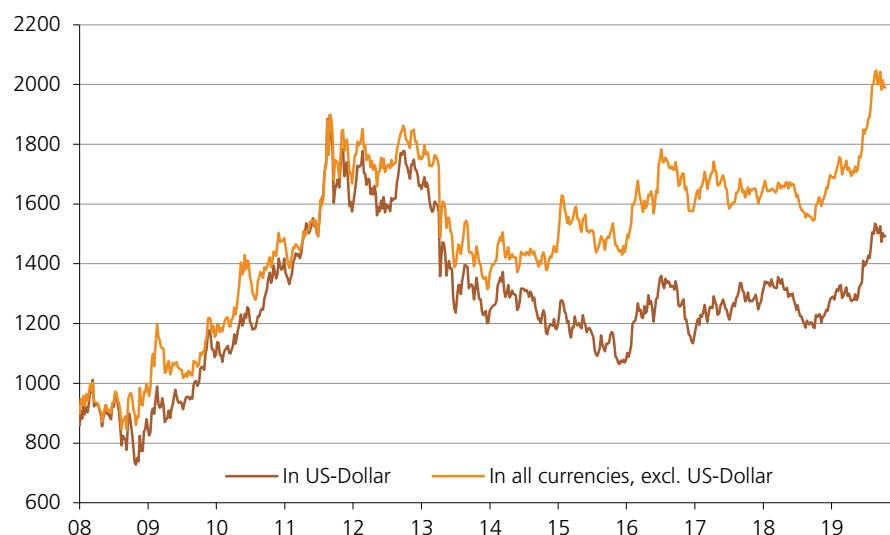
If the relationship between the quantity of US dollar and the supply of physical gold as depicted in the chart continues, there is a good chance for a further rise in the price of gold. For US monetary policy is clearly geared towards expanding the money stock further in the years to come. And the same can be expected in other currency areas around the world. This is because monetary policymakers follow the very idea that by increasing the quantity of money production and employment will be supported and economic and financial crises will be averted; and that for this end market interest rates have to be suppressed to the lowest levels possible.

However, sound economics would inform us that central banks' inflationary policies – and, no doubt, the expansion of the quantity of money is inflationary – do great harm to the economy and the purchasing power of money in particular. As long as central banks continue with their inflationary scheme, the savvy investor has good reason to consider keeping gold as part of his/her liquid means because the purchasing power of gold cannot be debased by central banks printing up ever greater amounts of currency. And unlike bank deposits, gold does not carry a payment default risk. At current prices, we believe gold offers an attractive risk-reward profile, meaning a significant upward price potential that comes with a limited downside price risk.

Gold price per ounce

*in US dollars and all world currencies (excl. the US dollar)**

January 2008 to October 2019



Source: Bloomberg; calculations Degussa. *Calculated from the gold price (USD/oz) and the nominal trade weighted exchange rate of the US dollar. The timeline was indexed at 5 September 2011 with a value of 1.900.

Precious metals prices

In US-dollar per ounce

| | Gold | | Silver | | Platinum | | Palladium | |
|----------------------------|--------|------|--------|------|----------|------|-----------|------|
| I. Actual | 1492.9 | | 17.5 | | 915.0 | | 1743.5 | |
| II. Gliding averages | | | | | | | | |
| 5 days | 1487.5 | | 17.5 | | 888.4 | | 1762.6 | |
| 10 days | 1489.2 | | 17.6 | | 889.3 | | 1733.2 | |
| 20 days | 1494.5 | | 17.6 | | 894.7 | | 1696.9 | |
| 50 days | 1507.7 | | 17.8 | | 904.7 | | 1601.5 | |
| 100 days | 1457.8 | | 16.8 | | 868.6 | | 1546.4 | |
| 200 days | 1377.5 | | 16.0 | | 854.1 | | 1478.7 | |
| III. Estimate for end 2020 | 1690 | | 22.9 | | 930 | | 1570 | |
| Bandwidths | Low | High | Low | High | Low | High | Low | High |
| | 1440 | 1840 | 16 | 26 | 780 | 990 | 1380 | 1650 |
| (1) | -4 | 23 | -7 | 50 | -15 | 8 | -21 | -5 |
| IV. Annual averages | | | | | | | | |
| 2016 | 1242 | | 17.0 | | 985 | | 617 | |
| 2017 | 1253 | | 17.1 | | 947 | | 857 | |
| 2018 | 1268 | | 15.8 | | 880 | | 1019 | |

In euro per ounce

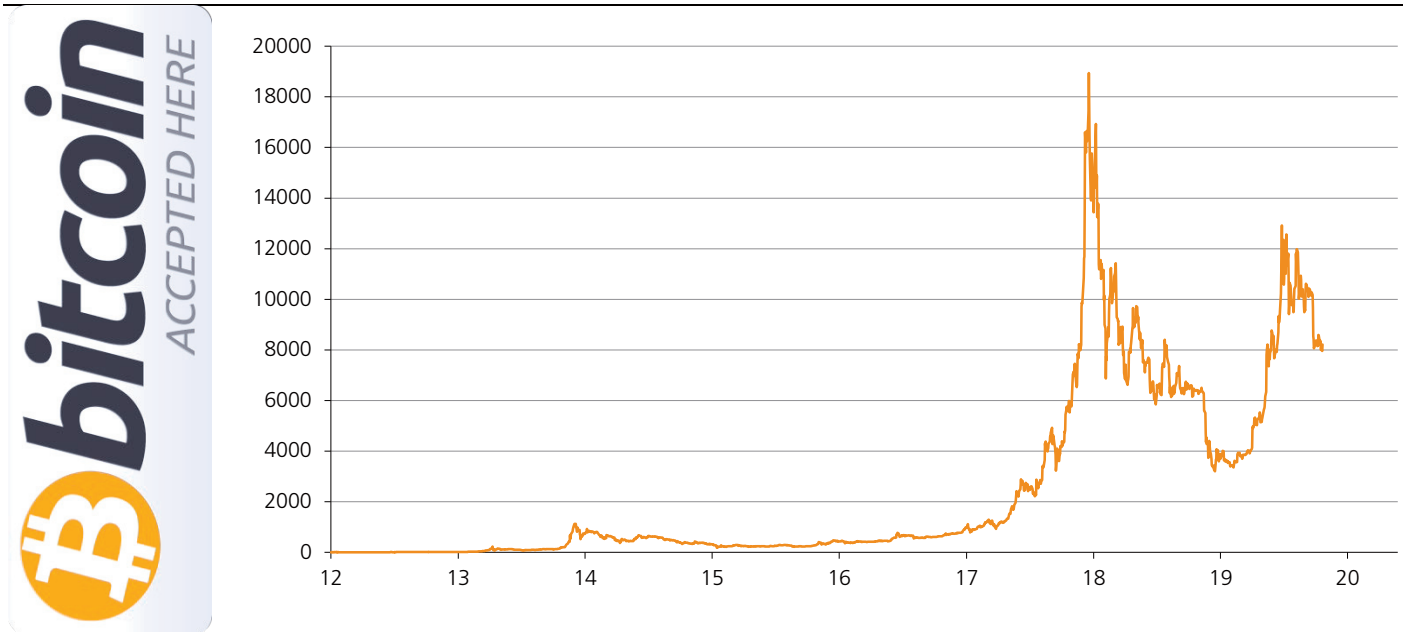
| | Gold | | Silver | | Platinum | | Palladium | |
|----------------------------|--------|--------|--------|------|----------|-------|-----------|--------|
| I. Actual | 1342.0 | | 15.8 | | 822.5 | | 1567.2 | |
| II. Gliding averages | | | | | | | | |
| 5 days | 1338.1 | | 15.8 | | 799.2 | | 1585.6 | |
| 10 days | 1345.6 | | 15.9 | | 803.5 | | 1565.9 | |
| 20 days | 1357.4 | | 16.0 | | 812.6 | | 1541.0 | |
| 50 days | 1366.1 | | 16.1 | | 819.8 | | 1451.3 | |
| 100 days | 1309.5 | | 15.1 | | 780.3 | | 1389.1 | |
| 200 days | 1229.9 | | 14.3 | | 762.5 | | 1320.0 | |
| III. Estimate for end 2020 | 1580 | | 22 | | 870 | | 1470 | |
| Bandwidths | Low | High | Low | High | Low | High | Low | High |
| | 1350.0 | 1730.0 | 15.3 | 24.8 | 730.0 | 930.0 | 1290.0 | 1550.0 |
| (1) | 1 | 29 | -3 | 57 | -11 | 13 | -18 | -1 |
| IV. Annual averages | | | | | | | | |
| 2016 | 1120 | | 15 | | 888 | | 557 | |
| 2017 | 1116 | | 15 | | 844 | | 760 | |
| 2018 | 1072 | | 13 | | 743 | | 863 | |

Source: Thomson Financial; own calculations and estimates. Numbers are rounded.

(1) Estimated return against actual price in percent.

Bitcoin, performance of various asset classes

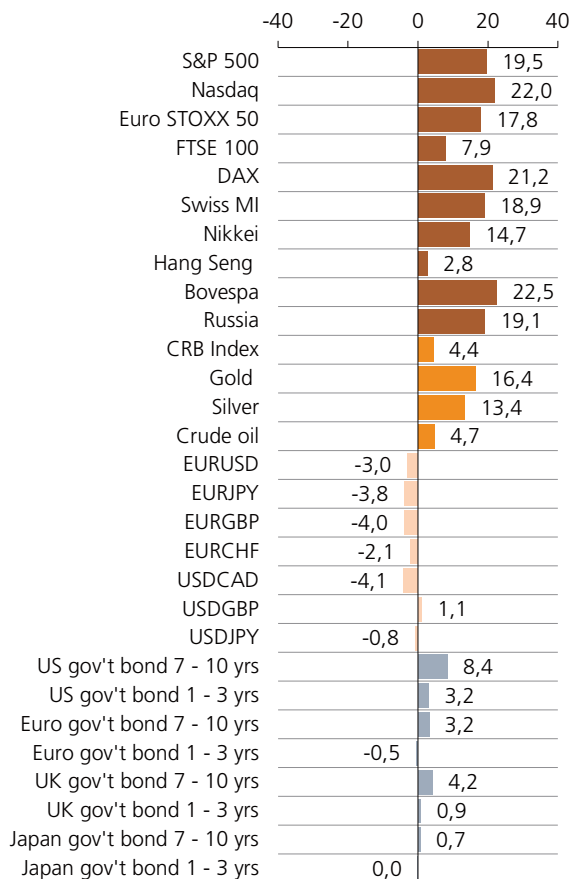
Bitcoin in US dollars



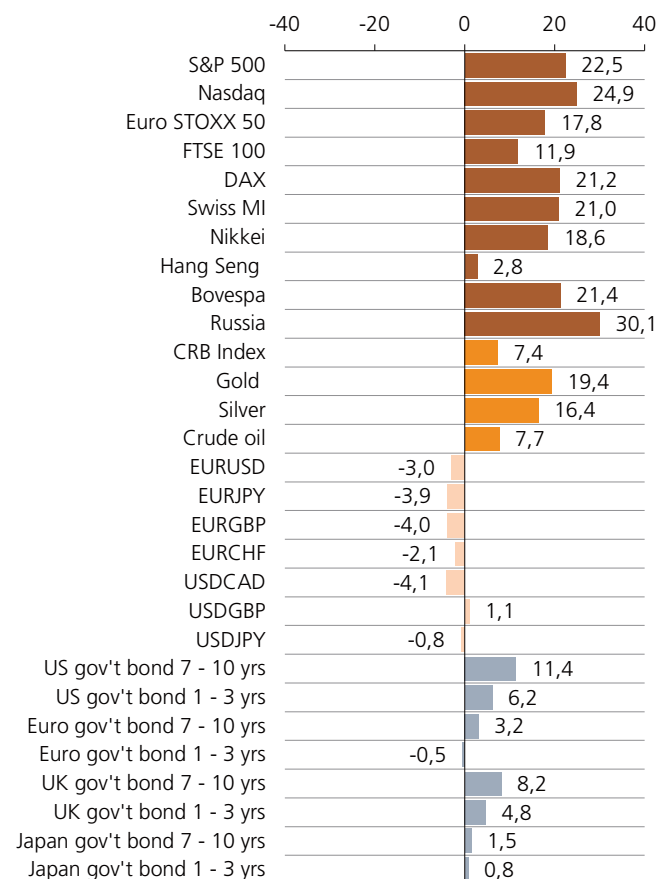
Source: Thomson Financial; graph by Degussa.

Performance of stocks, commodities, FX and bonds

(a) In national currencies



(b) In euro



Source: Thomson Financial; calculations by Degussa.

Articles in earlier issues of the *Degussa Market Report*

| Issue | Content |
|-------------------|--|
| 24 October 2019 | The Inflationary Supply Of Unbacked US Dollars And The Price Of Gold |
| 10 October 2019 | Let's Get Physical With Gold And Silver |
| 26 September 2019 | The US Dollar Beast |
| 12 September 2019 | The Inflationary Tide That Lifts all Boats but One |
| 29 August 2019 | The Disaster of Negative Interest Rate Policy |
| 15 August 2019 | The Gold Bull Market Is Back |
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| 4 July 2019 | It Looks Like A Gold Bull Market, It Feels Like A Gold Bull Market – Maybe It Is A Gold Bull Market? |
| 19 June 2019 | Good Money, Bad Money—And How Bitcoin Fits In |
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| 23 May 2019 | The Boom That Will Have It Coming |
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| 14 March 2019 | The Big Central Banks Increase the Case for Gold |
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www.degussa-goldhandel.de/marktreport

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