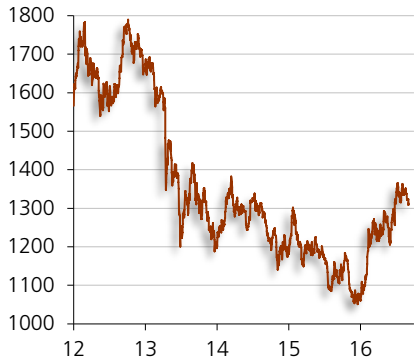
Degussa Market Report

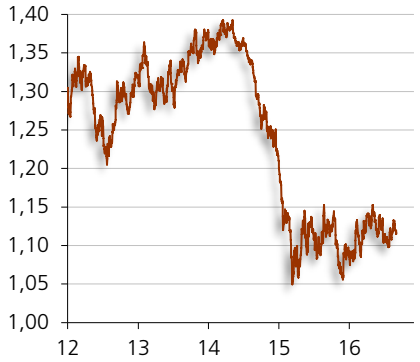
2 September 2016 Economics · Finance · Precious metals

Gold price, USD/oz



Silver price, USD/oz

EURUSD



Source: Bloomberg.

Precious metals prices	Actual (spot)	Change against (in percent): 2 W	3 M	12 M
I. In US-dollar				
Gold	1,311.9	-1.8	-0.8	17.7
Silver	18.9	-4.2	2.2	30.0
Platinum	1,047.8	-6.7	2.9	15.1
Palladium	667.8	-2.8	11.9	2.4
II. In euro				
Gold	1,171.9	-2.1	-1.4	17.5
Silver	16.9	-5.1	1.1	29.9
Platinum	935.7	-7.8	1.8	15.0
Palladium	596.7	-3.5	10.7	2.2
III. Gold price in other currencies				
JPY	135,867.6	0.4	0.0	1.9
CNY	8,763.2	-2.3	-0.2	23.6
GBP	988.2	-4.5	-0.4	34.1
INR	87,680.9	1.9	-1.4	20.1
RUB	86,408.8	-0.4	2.6	18.3

Source: Bloomberg; own calculations.

OUR TOP ISSUES

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

No return to "normal" interest rates

The policy of negative nominal interest rates is a dead end. The "new alternative" represents low but positive nominal rates, plus somewhat higher inflation.

What you always wanted to know about gold

Gold is in demand for various reasons. Most importantly, gold serves as money – and it is, no doubt, the best money over the long-term.

The SNB keeps walking a tightrope

In its attempt to stem the appreciation of the Swiss Franc, the Swiss National Bank keeps running the risk of becoming overwhelmed by capital inflows.

The problems resulting from central banks buying stocks

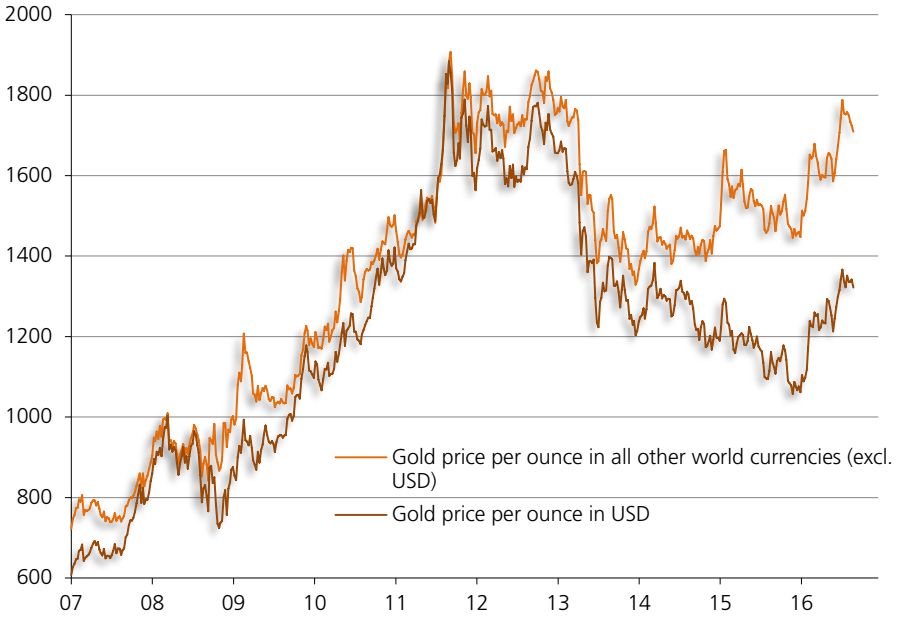
Central banks buying stocks could cause far-reaching and potentially severe damage to the market economy.

Precious Metals Market Comment

ETF investors, driven by low yields, continue to be an important driver in the current recovery of gold and silver prices.

Gold price per ounce
in US dollar and all world currencies (excl. the US dollar)*

January 2007 to September 2016



Source: Bloomberg; own calculations. *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.

The relation between nominal interest rates, inflation and real interest rates

Many influential economists consider a policy, which brings the interest rates in real terms into negative territory, advisable. Doing so would, as the argument goes, stimulate the economy, helping to create additional jobs and higher incomes.

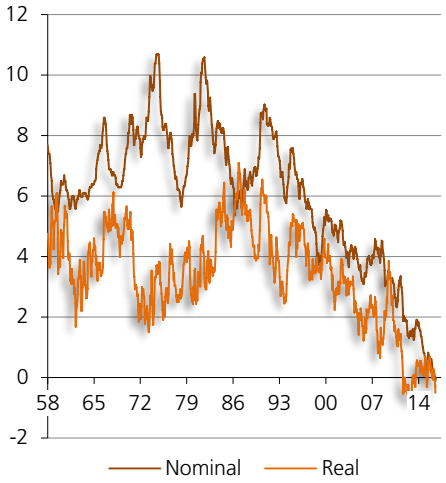
[1] Nominal interest rate	[2] Inflation premium	[3] = [1] - [2] Real interest rate
4	2	2
2	2	0
0	2	-2
0	4	-4

Source: Own calculations.

If the central bank can lower interest rates only to zero, but not below that level, it has to ramp up inflation to bring real interest rates into negative territory. The higher the inflation, the more real interest rates dive into negative territory if and when nominal interest rates are kept at or close to zero percent.

Never have German interest rates been as low

German long-term gov't bond yield, nominal and real[1)], in percent



Source: Thomson Financial; own calculations. [1)]Nominal rate minus annual consumer price inflation.

In the Eurozone, for instance, various nominal bond yields (for instance yields on German gov't bonds) have been pushed into negative territory by the European Central Bank (ECB). As inflation is positive, real yields have fallen into negative territory.

No return to 'normal interest rates'

There are limits to a policy of negative nominal interest rates. The alternative is having to fear a policy of low positive rates, plus higher inflation.

The US Federal Reserve (Fed) is considering raising the Federal Funds Rate. Accordingly, financial markets expect that borrowing costs, currently at 0.5 percent, could rise in the coming months.

Is this the "normalization" of interest rates which savers and investors have been yearning for? Most likely not. It seems that policy makers are increasingly realizing that the policy of zero or even negative yields just doesn't pay off.

The wider public is very much against it. Banks, for instance, run into trouble because their profits come under severe pressure in an environment of zero, let alone negative, interest rates.

What is more, bank clients start protesting as their bank deposits no longer earn a positive return. They even start redeeming their deposits in cash, thereby causing bank refinancing gaps.

All this doesn't mean that central banks will abandon the idea of pushing real – that is inflation-adjusted – interest rates into the negative to try to stimulate the economy and deal with the global debt burden.

There is a popular notion that "higher" inflation could "grease the wheel" and thus kick-start the economy. Upon closer inspection, however, this is a flawed idea, which becomes obvious once one understands how inflation actually works.

Inflation only works if and when it comes unexpectedly. The stimulus it provides is due to the errors which it produces. It distorts prices and causes entrepreneurs to make the wrong decisions.

However, this kind of "surprise inflation" can never be more than a temporary incentive. Sooner or later, people will discover that they have been tricked by the central bank and adjust their behavior accordingly.

For instance, consider a case in which the central bank promises to deliver an inflation rate of 2 percent. After clients have entered into their contracts, the central bank ramps inflation up to 4 percent.

Clients will react and bring their inflation expectation to 4 or even 5 percent. As a result, the central bank, if it wants to stimulate the economy with inflation, has to bring inflation to ever higher levels.

This would ultimately lead to high or even hyperinflation – which has been observed in many countries around the world, such as in Latin America in the 1980s and 90s.

Deleveraging

However, if the central bank succeeds in (1) raising inflation from, for example, 2 to 4 percent on a one-off basis, and (2) simultaneously preventing nominal yields from rising, it can help to deleverage an economy that devalues outstanding debt.

This outcome can be briefly explained as follows: an increase in inflation leads to a higher nominal growth rate of gross domestic product (GDP) over time (all things being equal). This, in turn, lowers the ratio between outstanding debt and nominal GDP. What is more, a negative real interest rate paid on additional borrowing works towards reducing the stock of debt.

Under a policy of a negative real interest rate, the central bank can cause the debt-to-GDP ratio to drift lower over time. It may even allow additional borrowing without derailing the downward path of the debt-to-GDP ratio.

That said, a policy of deleveraging via a policy of negative real interest rates can be expected to be quite attractive from the point of view of politically powerful players, such as states and banks.

If nominal interest rates cannot be pushed below zero, there is only one way to bring about negative interest rates: forcing the central bank to ramp up inflation. How can this be done?

Expanding the quantity of money

The central bank could simply announce that it will, going forward, raise 4 percent inflation from currently 2 percent. To make such an announcement "credible", it would have to start raising the quantity of money.

Technically speaking, the central bank can expand the quantity of money at any time and any amount politically desired, as the central bank has a monopoly on money production.

To this end, the central bank could provide banks with a refinancing of, for example, *minus* 3 percent in real terms, so that banks can extend credit to consumers and firms at zero percent. This would, of course, increase the quantity of money. What is more, the central bank could also purchase government and corporate bonds against issuing new money balances.

The central bank could even resort to "helicopter money": it provides – as a cost-free gift – states, banks, corporates and consumers with newly created money at an amount deemed appropriate for raising inflation.

The truth is that central banks can increase inflation, as they control the production of money. And inflation is, as Milton Friedman once said, always and everywhere a monetary phenomenon. There is plenty of historical experience showing that if the quantity of money increases significantly (and actually above the increase in production output), inflation will result sooner or later.

One may have difficulty imagining that central banks could at some point change course and deliver higher inflation. However, central banks are 'politicized institutions', and they will pursue a policy that is politically expedient.

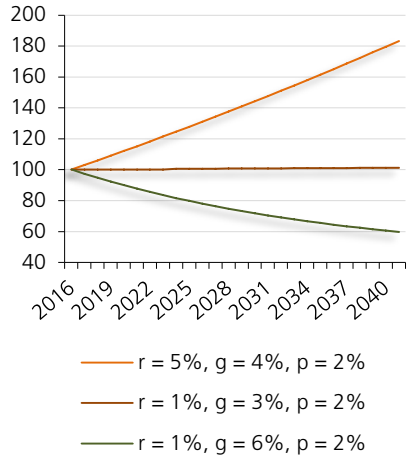
Of course, central banks will try to prevent inflation from getting out of control, as this could cause the unbacked paper money system to come crashing down, endangering its very existence.

It shouldn't come as a surprise if central banks, at some stage, were to drive inflation up – from a target rate of 2 to 4 or even a higher rate – as this policy is already under discussion among Fed policy makers and influential economists.

Such a change in policy would make it advisable for savers and investors to keep at least some gold in their portfolios, as it would be damaging to the economy and peoples' life savings. Gold cannot be devalued by central bank policies aimed at debasing the currency.

How inflation and low nominal interest rates help deleveraging t

Example: Gov't debt in percent to gross domestic product in percent

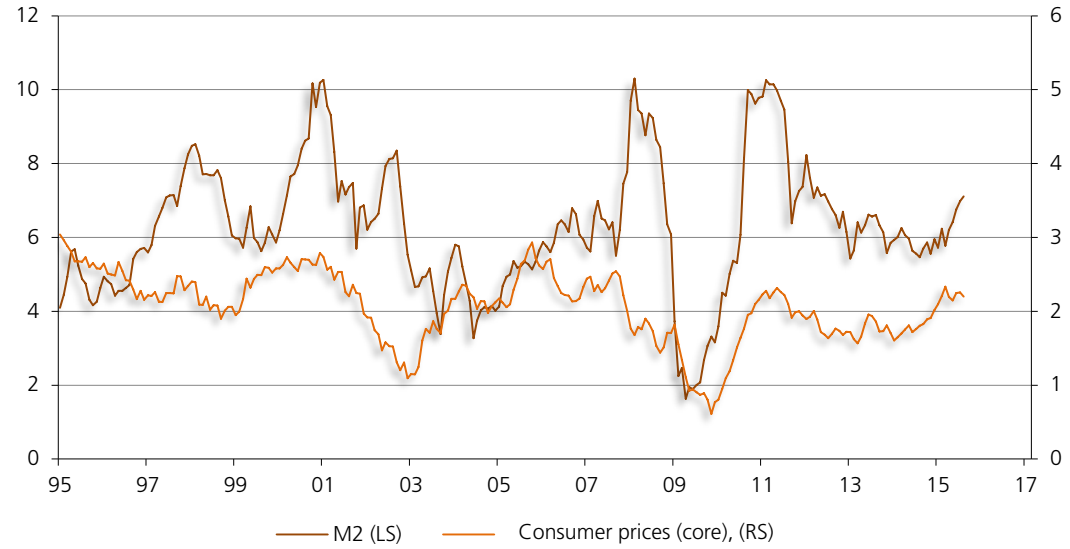


Source: Own calculations. Legend: r = nominal interest rate, g = nominal growth rate of gross domestic product (GDP), p = primary balance (expenditures minus revenues excluding interest payments).Assumption: Debt-to-GDP ratio is 100 in 2016.

There is a mathematical relation between an economy's debt-to-GDP ratio, inflation, the nominal growth rate of GDP and the nominal interest rate. It is also termed "debt dynamics".
If inflation increases the nominal GDP growth rate, the debt-to-GDP lowers – provided the nominal interest rate does not exceed the nominal GDP growth rate (and additional borrowing remains in check).
In other words: to lower the debt-to-GDP ratio over time by taking recourse to higher inflation, the central bank must succeed in preventing nominal interest rates from rising. The policy of raising inflation must go hand in hand with controlling nominal interest rates.
How could that be done? The central bank can, as is widely known, control short-term rates perfectly. It can do the same with longer-term bond yields. The central bank simply buys bonds in unlimited amounts if and when their prices are at a pre-set level. By doing so, the central bank puts an upper ceiling on yields. Once the central bank has credibly established a minimum price for bonds in the market place, bond prices will not fall below that level, as no one would sell bonds at a price below the price paid by the central bank. As a result, the central bank can push the real rate into negative territory while keeping nominal yields at or above the zero line.

Selected market developments

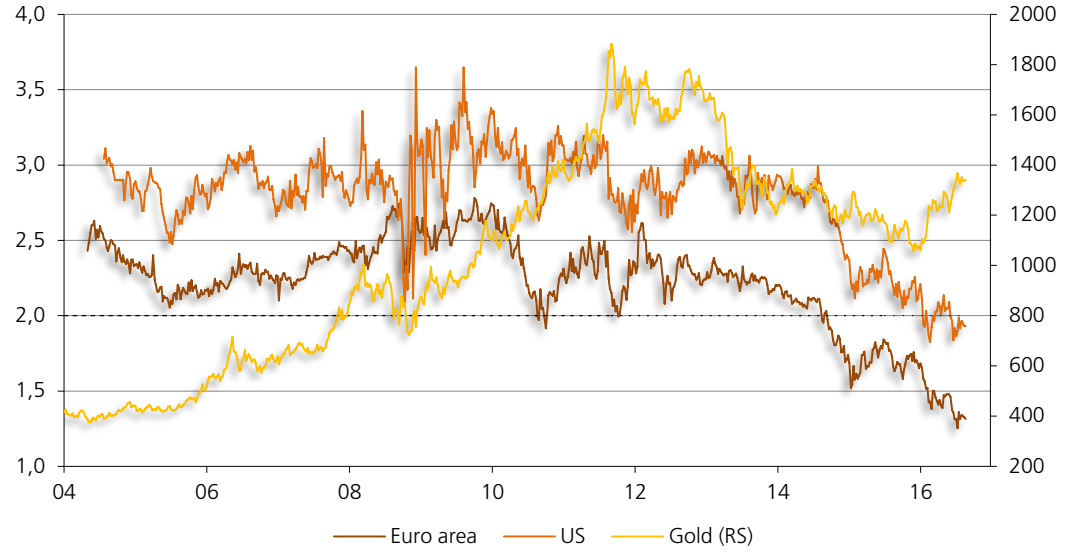
1 M2 and consumer prices, annual increases in percent



► The growth rate of the money stock M2 has been accelerating lately – suggesting higher (core) inflation going forward.

Source: Thomson Financial; own calculations.

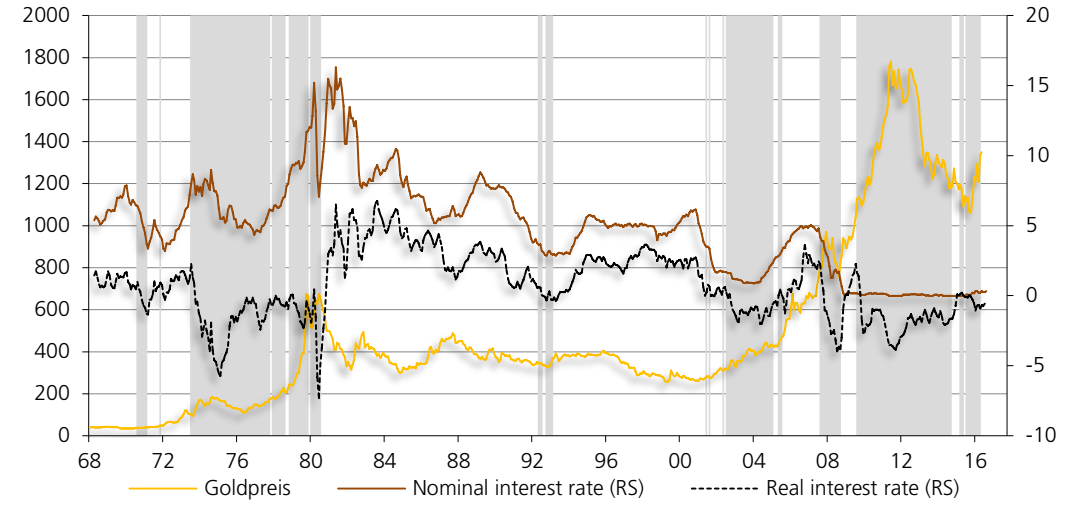
2 Gold price (USD/oz) and inflation expectations* in percent



► Since the beginning of 2016, the gold price has been drifting higher – despite inflation expectations having come down further.

Source: Thomson Financial; own calculations. * Inflation swaps: Inflation expectations in 5 years for the coming 5 years.

3 Gold price (USD/oz) and interest rates, nominal and real*, in percent



► Negative real interest rates have pushed the gold price up (and in some periods considerably so).

Source: Thomson Financial. *Nominal rate minus annual change in consumer prices. Grey area: Periods of negative real interest rates.

Precious metals prices, actual and projections (per ounce)

In US-dollar

	Gold		Silver		Platinum		Palladium	
I. Actual	1,311.2		18.9		1,047.6		668.5	
II. Gliding averages								
5 days	1,314.3		18.8		1,056.0		675.3	
10 days	1,322.3		18.7		1,071.7		683.0	
20 days	1,332.6		19.3		1,103.1		691.5	
50 days	1,336.7		19.6		1,096.7		667.6	
100 days	1,298.1		18.3		1,054.7		619.5	
200 days	1,229.5		16.5		982.2		577.4	
III. Projections								
	Rante		*Range*		*Range*		*Range*	
	Low	*High*	*Low*	*High*	*Low*	*High*	*Low*	*High*
Q3 2016	1,175	1,320	17.6	19.5	850	1,130	640	700
Q4 2016	1,251	1,360	17.1	20.1	800	1,170	660	730
Q1 2017	1,279	1,390	17.8	20.9	1,040	1,220	700	760
Q2 2017	1,306	1,420	18.5	21.8	1,080	1,270	730	790
IV. Annual averages								
2013	1,398		23.4		1,473		725	
2014	1,252		18.6		1,370		805	
2015	1,154		15.5		1,043		684	
2016 (projected)	1,209		17.3		931		619	

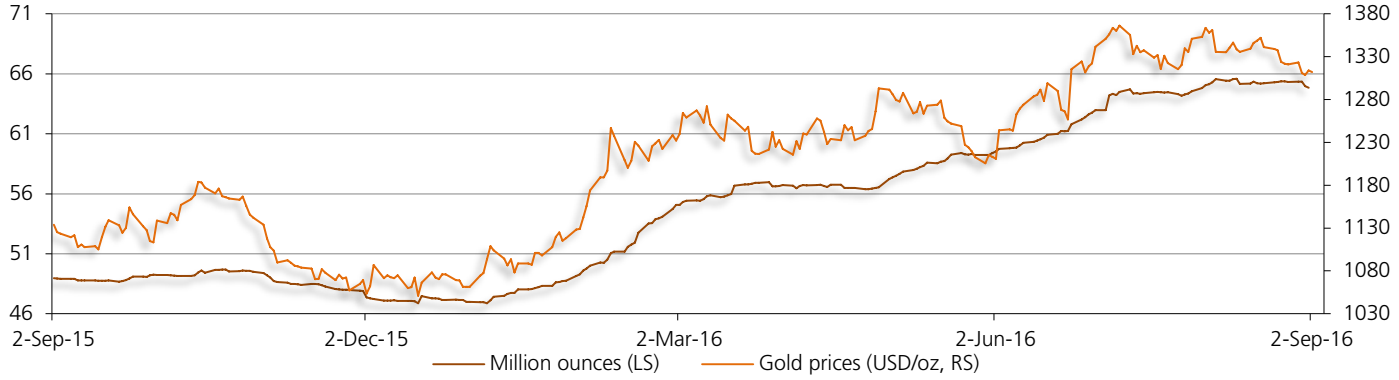
In Euro

	Gold		Silver		Platinum		Palladium	
I. Actual	1,170.9		16.9		935.6		597.0	
II. Gliding averages								
5 days	1,176.0		16.8		944.9		604.2	
10 days	1,176.5		16.7		953.5		607.6	
20 days	1,188.8		17.2		984.2		616.9	
50 days	1,201.0		17.6		985.3		599.7	
100 days	1,157.7		16.3		940.7		552.6	
200 days	1,105.0		14.9		882.7		519.0	
III. Projections								
	Range		*Range*		*Range*		*Range*	
	Low	*High*	*Low*	*High*	*Low*	*High*	*Low*	*High*
Q3 2016	1,058	1,189	15.8	17.6	766	1,018	577	631
Q4 2016	1,180	1,283	16.1	19.0	755	1,104	623	689
Q1 2017	1,279	1,390	17.8	20.9	1,040	1,220	700	760
Q2 2017	1,306	1,420	18.5	21.8	1,080	1,270	730	790
IV. Annual averages								
2013	1,052		18		1,108		545	
2014	949		14		1,036		611	
2015	1,045		14		945		619	
2016 (projected)	1,098		16		846		562	

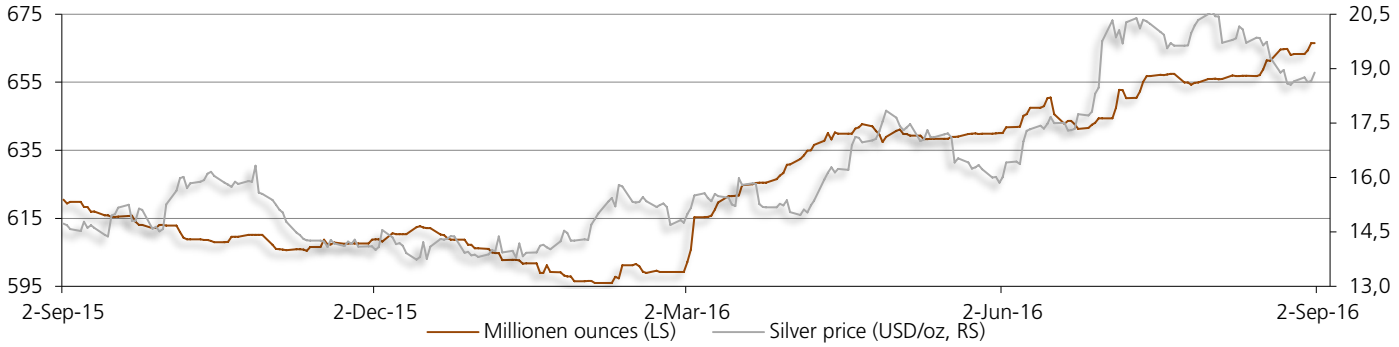
Source: Bloomberg; own calculations. Projections of Degussa Goldhandel GmbH (end of quarter); numbers are rounded.

Precious metals prices and ETF holdings

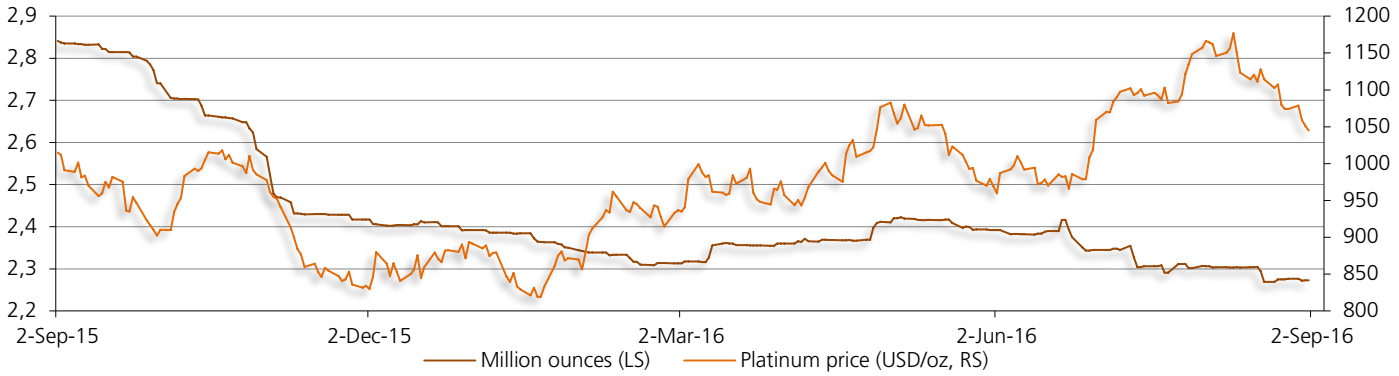
Gold ETFs (million ounces) und gold price (USD/oz)



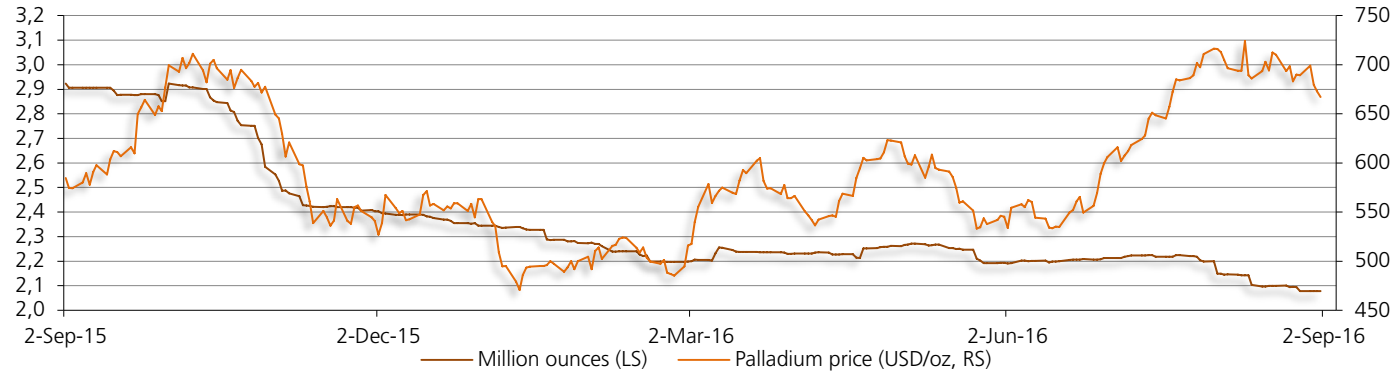
Silver ETFs (million ounces) and silver price (USD/oz)



Platinum ETFs (million ounces) and platinum price (USD/oz)



Palladium ETFs (million ounces) and palladium price (USD/oz)



Source: Bloomberg.

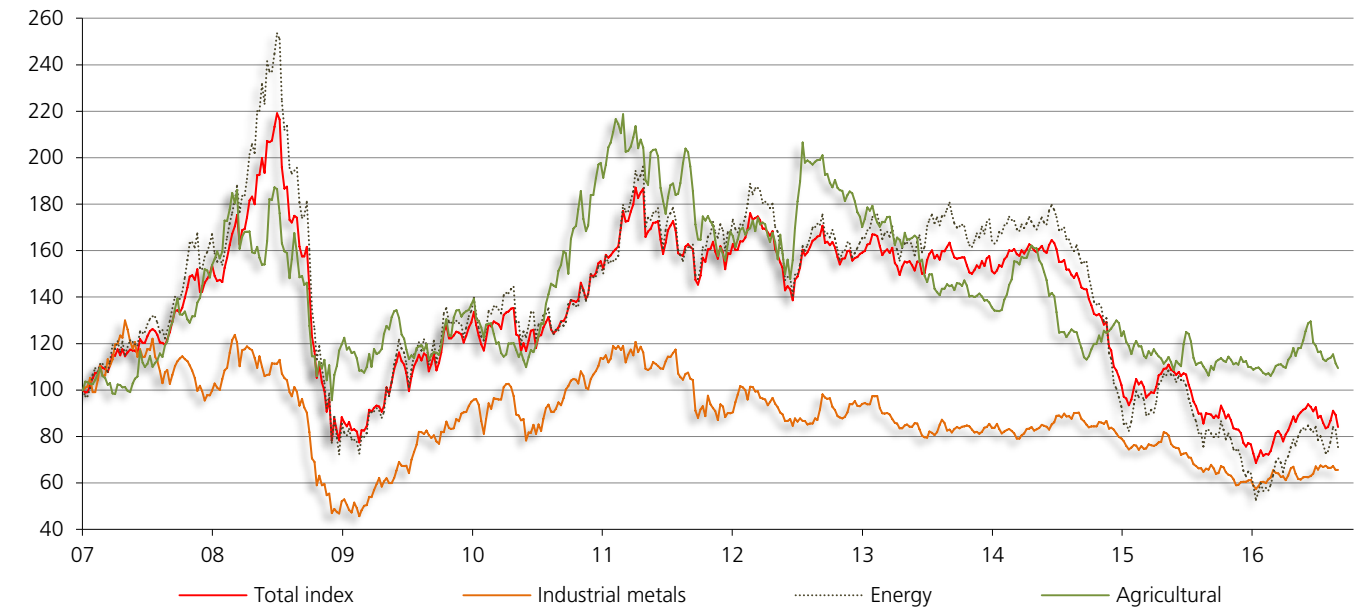
Commodity prices

Selected commodity prices

	Actual price in US-dollar	Change against (in percent): 1 week	1 mth	3 mths	6 mths	12 mths	Volatility (in percent): 30 days	90 days
I. Energy								
WTI crude oil	43.28	-11.9	-12.7	-13.9	2.2	-19.6	37.2	36.3
Brent crude o	45.52	-11.1	-9.9	-10.5	6.5	-23.9	35.3	35.7
Gasoline	127.73	-11.2	-9.6	-12.4	1.0	-16.8	34.5	34.8
Heating oil	138.26	-10.1	-9.5	-9.8	7.6	-21.1	32.8	33.4
Gas oil	404.00	-9.7	-11.1	-12.4	4.5	...	30.6	31.9
Natural gas	2.80	6.9	-5.0	10.8	22.4	-8.5	40.2	35.5
II. Agriculture								
Corn	327.00	-4.9	-11.9	-20.0	-11.3	-17.3	18.4	26.8
Wheat	398.00	-10.5	-14.5	-19.4	-21.0	-26.2	22.6	24.4
Soy beans	948.50	-5.6	-17.8	-10.2	2.6	4.8	23.0	28.9
Coffee	151.40	6.9	2.1	20.0	13.9	7.2	23.6	28.8
Sugar	19.64	-0.7	-3.4	11.2	25.8	54.0	30.6	31.1
Cotton	67.79	-0.4	5.6	6.7	17.3	5.7	25.2	23.2
III. Industrial metals								
Aluminum	1615.00	-3.1	-2.1	3.8	6.3	-0.2	13.5	16.1
Copper	4630.00	-3.5	-4.4	-0.9	-4.5	-11.5	13.0	18.6
Zinc	2338.00	2.3	11.1	21.6	28.7	22.0	15.4	21.1
Lead	1930.00	2.5	7.9	13.5	13.2	13.4	13.8	19.4
Iron ore	57.10	0.2	6.5	21.0	7.3	4.0	...	...
IV. Precious metals								
Gold	1312.00	-2.2	-0.3	8.0	6.5	19.7	10.3	14.6
Silver	18.88	-2.2	2.2	17.9	22.8	27.7	20.0	24.5
Platinum	1047.82	-6.0	2.9	7.0	7.4	6.6	20.4	21.2
Palladium	667.75	-6.1	11.9	22.1	18.6	9.1	30.6	29.1
V. Ratios								
Gold-silver	69.48	0.2	-2.4	-8.4	-13.3	-6.1	12.7	16.7
Gold-platinum	1.25	4.0	-3.1	1.0	-0.8	12.4	15.5	15.7
Gold-palladiu	1.96	3.6	-10.9	-11.7	-10.3	9.8	26.6	28.7
Palladium-pla	0.64	0.1	8.7	14.1	10.5	2.2	18.9	21.6

Source: Bloomberg; own calculations.

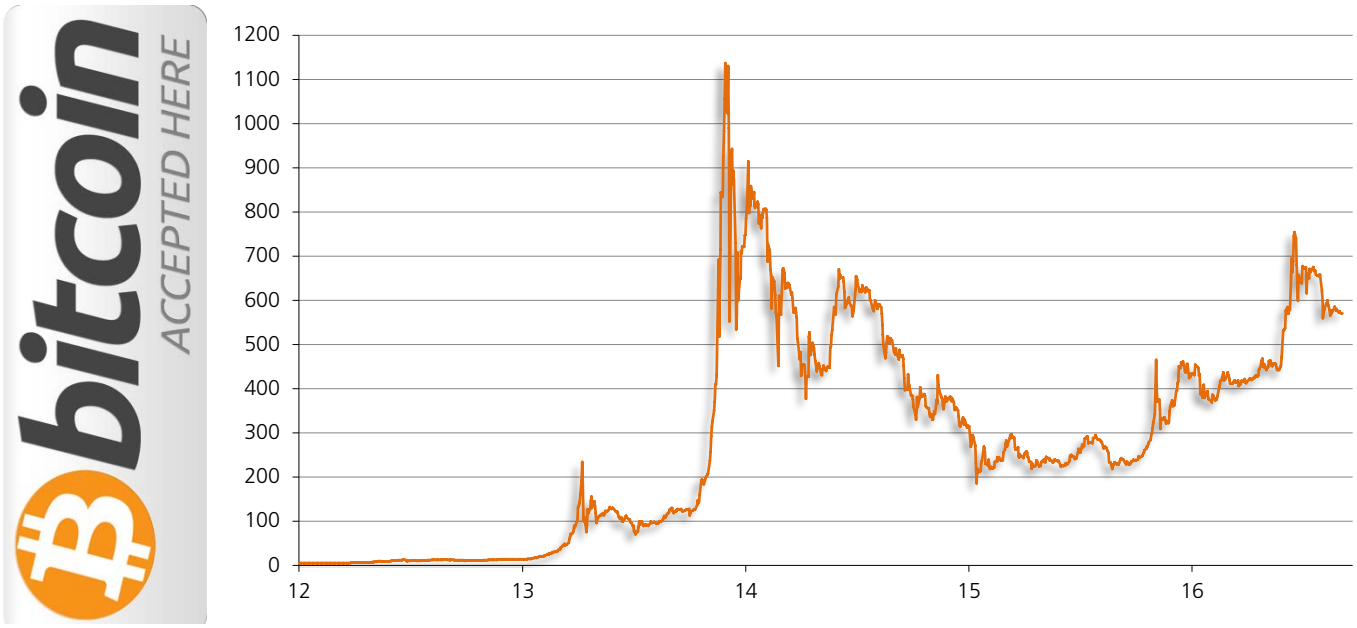
S&P commodity prices (in US dollar terms)



Source: Bloomberg. Series are indexed (January 2007 = 100).

Bitcoin, performance of various asset classes

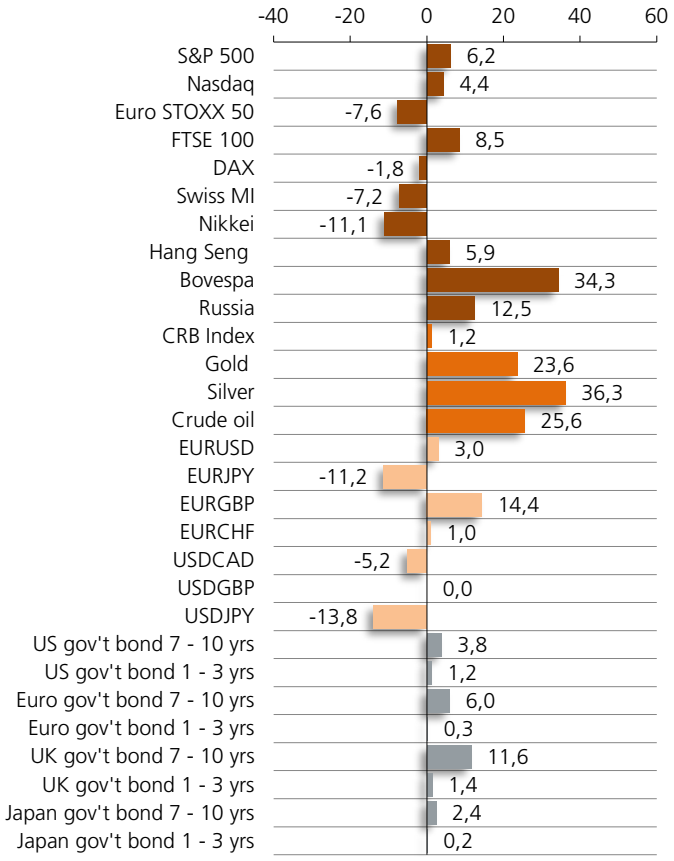
Bitcoin in US Dollar



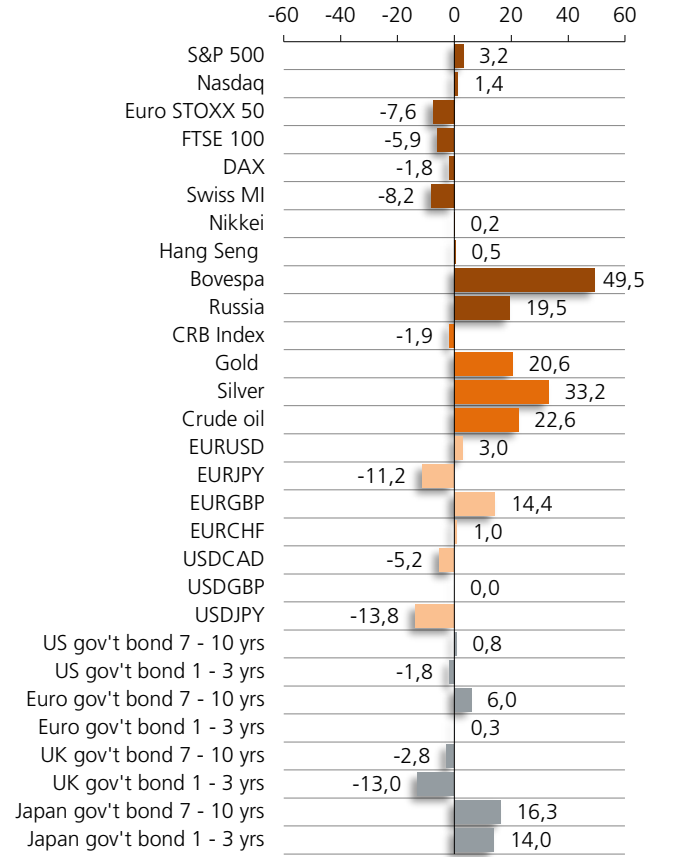
Source: Bloomberg.

Performance of stocks, commodities, FX and bonds

(a) In national currencies



(b) In euro



Source: Bloomberg; own calculations.

Articles in earlier issues of the *Degussa Market Report*

Issue	Content
2 September 2016	No return to "normal" interest rates
19 August 2016	Debt Monetized End Masse to Fend Off the Euro Crash?
5 August 2016	*No English issue due to summer break*
22 July 2016	The Demise of the Interest Rate - the Comeback of Gold Money
8 July 2016	Escaping the Euro Trap
24 June 2014	The Credit Cycle and the Price of Gold
10 June 2016	US Fed wants to raise rates further - investors should cling to gold and stocks
27 May 2016	The Illusion of Central Bank Independence and the Consequence for the Gold Price
13 May 2016	The Fight Against "Secular Stagnation" and What It Means for Gold and Silver Prices
29 April 2016	US dollar dominance - challenged by gold
15 April 2016	A World without Returns
1 April 2016	Helicopter Euros Hovering on the Horizon
18 March 2016	Gold and stocks protect against 'helicopter-euros'

The Degussa Marktreport (German) and the Degussa Market Report (English) are available at:
www.degussa-goldhandel.de/de/marktreport.aspx.

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