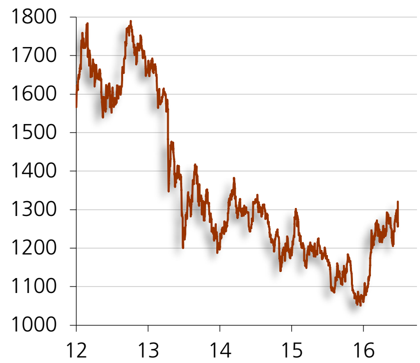
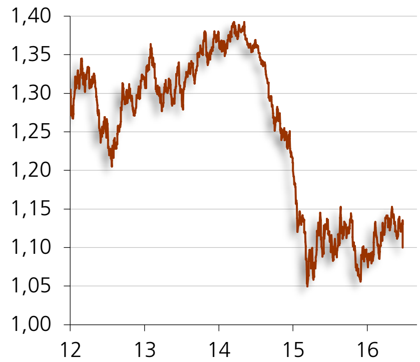
Degussa Market Report
24 June 2016
Economics · Finance · Precious Metals

USD per ounce of gold



USD per ounce of silver

EUR USD



Source: Bloomberg. Daily data

Precious metals prices				
	Actual (spot)	Change against (in percent): 2 W	3 M	12 M
I. In US-dollar				
Gold	1,314.2	5.6	6.6	12.1
Silver	17.7	7.5	14.8	12.4
Platinum	975.3	-1.2	0.0	-9.8
Palladium	549.6	-0.9	-2.4	-18.5
II. In euro				
Gold	1,186.8	8.4	9.6	12.8
Silver	15.9	10.5	17.9	13.1
Platinum	881.4	2.0	2.8	-9.1
Palladium	497.5	2.6	0.6	-17.8
III. Gold price in other currencies				
JPY	134,647.3	1.6	-2.9	-6.1
CNY	8,696.2	7.0	9.1	19.5
GBP	965.2	12.6	12.7	29.3
INR	89,361.5	1.9	9.6	19.7
RUB	82,607.4	2.6	-0.3	27.3

Source: Bloomberg; own calculations.

OUR TOP ISSUES

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

Brexit - The Day After

The outcome of the UK's EU referendum should be known by 7am Friday. We'll briefly comment on it.

The Credit Cycle and the Price of Gold

Ever more money needs to be issued to keep the credit wheel spinning. This bodes well for the price of gold.

The Neutral Interest Rate Cannot Be Zero, Let Alone Negative

Originary interest is elemental, healthy and practically part of the human condition. The central bank's negative interest rate is unnatural and toxic.

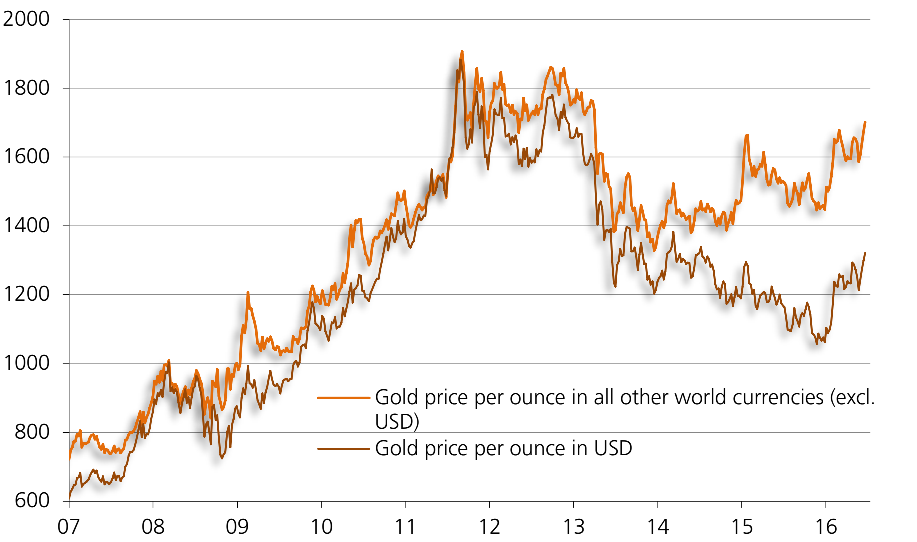
The Upside of Inequality

People have different goals, preferences and skills. Acknowledging and respecting this inequality is the key to peaceful and productive coexistence.

A Word on the Precious Metal Market

Exchange traded funds' role in the latest precious metals price surge

Gold price per ounce
*in US dollars and all world currencies (excl. the US dollar)**
January 2007 to June 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

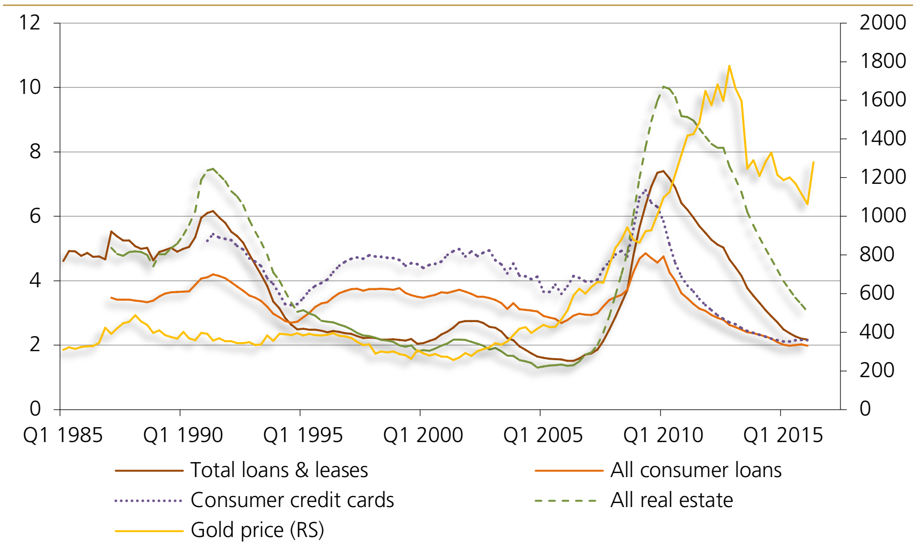
The Credit Cycle and the Price of Gold

Ever more money needs to be issued to keep the credit wheel spinning. This bodes well for the price of gold.

Gold, the ultimate means of payment, hedges against inflation. Not only that, it also immunizes against potential credit defaults. Gold, in its physical form, does not carry a default risk, and this distinguishes it from unbacked paper-denominated time and savings deposits and debentures issued by states, banks and corporates.

History teaches that there was no connection between US loan delinquency rates and the gold price from mid-1980 to around 2005; at least none close enough to be discerned. In 1990, for example, loan delinquency rates spiked with hardly a ripple in the price of gold. But things started to change early in the 21st century.

Lately, the price of gold rose as delinquency rates fell
Loan delinquency rates in percent* and the price of gold (USD/oz)



Source: Thomson Financial. *Loans are those past due thirty days or more and still accruing interest as well as those in nonaccrual status. Measured as a percentage of end-of-period loans

The turn of the 21st century brought a colossal commodities boom, and gold prices shot up as well. When the global economic and financial crisis hit in mid-2007, loan delinquency rates went up, and so did the gold price. What had changed?

We have to look at the overall debt situation to find the most feasible explanation for this phenomenon. In practically all major economies, the level of debt relative to gross domestic product (GDP) is now far higher than these levels were in the 1980s and 1990s. In fact, governments, corporates, consumers and banks, especially, have been ramping up their debt levels in recent years.

The trajectory of debt levels in the United States of America surely raises eyebrows: Total debt as percentage of US GDP rose from around 231 percent at the start of the 1990s to around 352 percent at the start of 2016 (and peaked at a whopping 381 percent in Q2 of 2009). Even more striking is the fact that this rise was accompanied by plummeting borrowing costs, creating a very precarious situation indeed.

On the role of credit in today's economic and financial system

Credit is the modern economic and financial system's lifeblood because today's monetary organism relies so heavily on bank credit expansion to produce the money that keeps it animate. As banks extend loans to corporates and consumers, they increase the amount of money by conjuring it out of thin air.

Bank credit expansion and the burgeoning money supply are constant companions. For most borrowers, credit has become the financing pipeline that never runs dry. States, corporates and consumers typically refinance maturing debt by taking out new loans, often going deeper into debt over time.

As the quantity of bank credit and money gradually rises, the price of goods and services tends to follow suit. This generally holds true for the price of producer goods, consumer goods and assets such as stocks, bonds and real estate.

This inflationary regime relies on incessant credit expansion and money that can be borrowed at ever lower interest rates. But this money wheel will grind to a halt if borrowers start paying down their bank loans. The quantity of money would decline, exerting downward pressure on overall prices. Sharply falling prices could be very painful indeed for those who have run up debt in an unbacked paper money system. Their nominal incomes decline, while their nominal debts remain unchanged. In other words, borrowers' level of *real debt* goes up.

As borrowers start defaulting on loans, lenders grow wary of renewing maturing debt and taking on even greater risks by lending more money. And rising credit risks push interest rates up, exerting further pressure on overstretched borrowers.

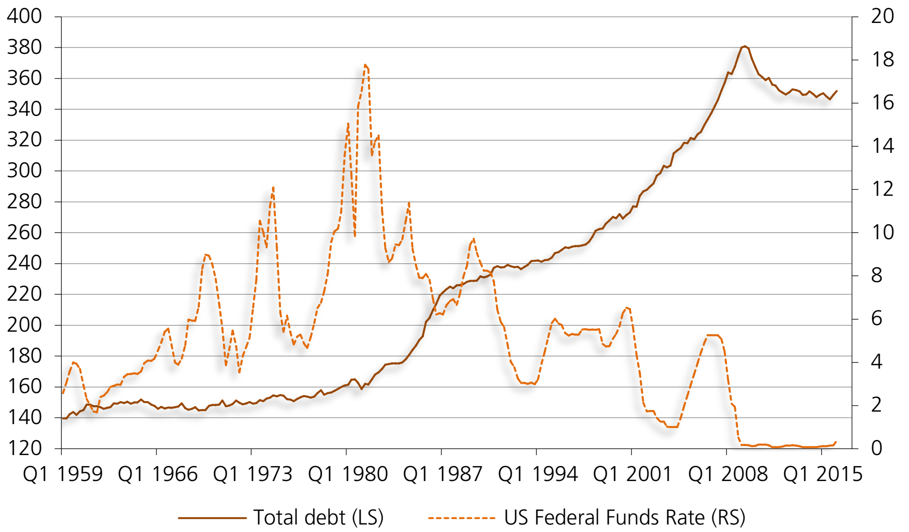
Central banks are keen to avert such a scenario, which could ultimately send the economy spiraling into a deflation-driven recession. So they prop up the system by hammering down interest rates and putting to rest credit default concerns in the marketplace.

Where does all this end? Logic would suggest at zero or perhaps even negative rates. But even zero rates may not be an antidote to the problems caused by issuing unbacked paper money through credit expansion. If interest rates are zero, lenders no longer have an incentive to churn out new loans. And if credit dries up, the boom turns into bust.

The US Federal Reserve (Fed) reflexive response to emerging crises has been to slash interest rates effectively to zero. Rates have since remained at extraordinarily low levels; the Fed's 25 basis point rate hike in December 2015 has proven to be more cosmetic than invasive. This prolonged period of low rates has allowed borrowers to refinance their maturing debt at low(er) rates. And these low rates have boosted demand for even more loans.

Falling interest rates, rising debt levels

Total debt in the US versus GDP and Federal Funds Rate in percent, respectively



Source: Thomson Financial; own calculation

It wouldn't be a stretch to suggest that the US economy's dependency on this regime of extremely low interest rates has gone from habit to addiction in recent years. It's even fair to say that it is now greater than it has ever been. This goes a long way towards explaining why the Fed is so hesitant to bring interest rate levels back up to 'normal'.

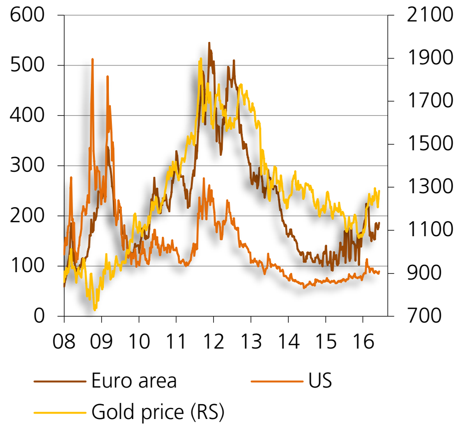
Indeed, the Fed—like practically all other central banks around the world—has to bear down on borrowing costs to keep them artificially suppressed. Otherwise, the cyclical upswing currently underway could stall on a steep hill. And if it loses traction, it's a long way down to the bottom. In other words, the Fed's low rate policy is propping the credit boom up by holding credit default rates down.

Raising rates without upsetting the precarious balance of a production and employment structure erected on artificially low interest rates would appear to be an impossible feat. One false move in this juggling act and it will all come crashing down. To keep all the balls in the air, the Fed will have to let the credit flow and the quantity of money grow.

There's a tempest brewing with all major central banks around the world pumping new unbacked paper money into the system. It will hit eventually, and holding the currency that is gold could be one way of weathering the storm. It's a fundamental principle of economic law that a rise in the quantity of money erodes money's buying power. The powers that be evidently believe that the ills brought on by the credit boom can be cured by printing more money. We, however, believe that gold is and will remain a natural portfolio hedge with a considerable upside price potential.

The link between the gold price and credit default concerns in recent years

Gold price (USD/oz) and the prices of insurances against credit defaults*



Source: Thomson Financial. *Credit default swap spreads, 5 years, in basis points

The price of gold fell from around 1,000 to 700 USD/oz From March to November 2008. At the same time, credit default concerns spiked. What had happened? Financial markets had cause to fear a deflation-drived recession: that is, falling prices and an increase in bankruptcies. Investors took flight into currencies, dumping their gold holdings.

Then everything changed: Rising credit default concerns were accompanied by a rising gold price. Up to around the middle of 2012, financial markets were more concerned about the credit system defaulting. Gold was in demand as a safe-haven asset.

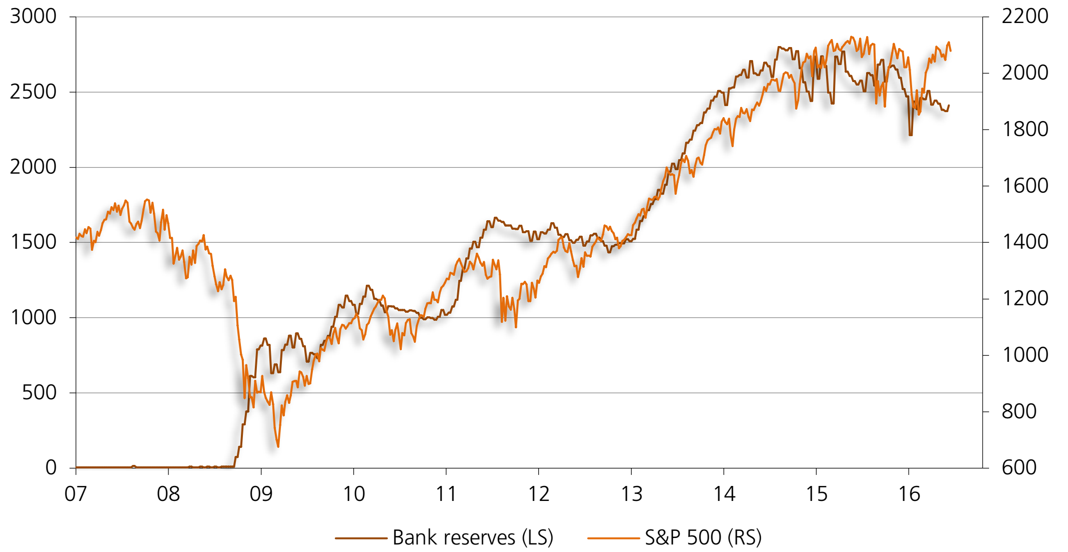
Then it began to dawn on investors that central banks would fend off any major credit default. Credit default concerns waned, and the gold price ebbed.

Central banks have clearly succeeded in squaring the circle: They somehow managed to assuage inflation concerns by signaling that they would issue new money to prevent any payment defaults on the part of banks and governments.

Retreating credit default concerns and muted inflation expectations were not kind tothe price of gold.

Looking forward, however, there is great cause to doubt that central banks will succeed in curbing inflation expectations if they continue to expand the quantity of money. And if central banks' future efforts to square the circle fail, the price of gold may rise sharply.

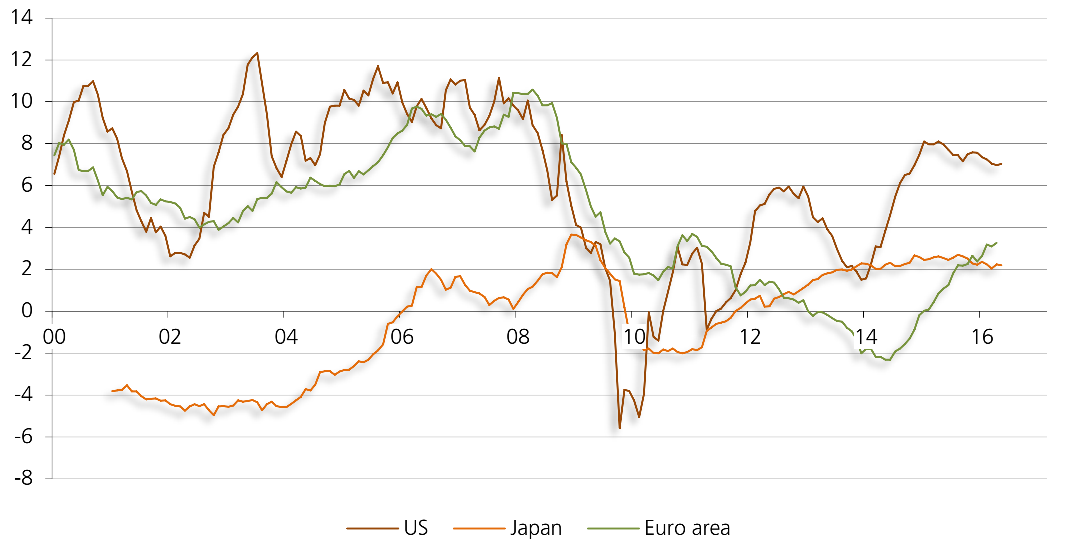
1 S&P 500 and US banks' excess reserve in US$ bn



► Central banks' practice of printing lots of money has certainly helped drive up stock prices and keep the credit boom chugging along.

Source: Thomson Financial, Federal Reserve

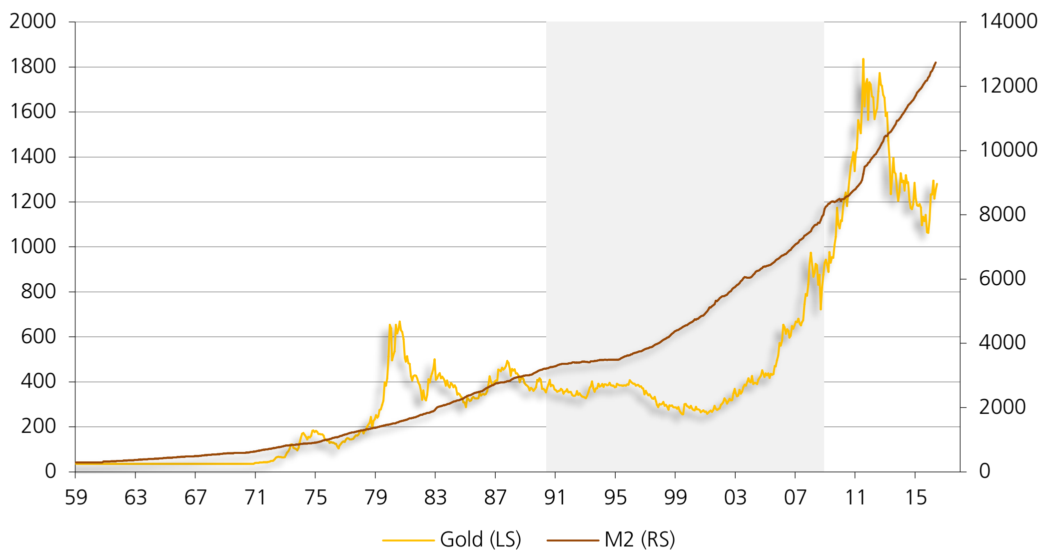
2 Bank loan growth, selected regions, in percent against the previous year



► Bank credits are still on the rise in the USA, Japan and the euro area, thereby adding to the burgeoning supply of money.

Source: Thomson Financial

3 Gold price (USD/oz) and US money stock M2, US$ bn



► Gold doesn't look expensive in view of the monetary expansion that is underway. In fact, it would appear to have quite some upside potential.

Source: Bloomberg

Precious metals prices, actual and projections (per ounce)

In US-dollar

	Gold		Silver		Platinum		Palladium	
I. Actual	1,321.1		17.7		980.9		552.0	
II. Gliding averages								
5 days	1,281.7		17.4		979.1		556.3	
10 days	1,286.1		17.5		978.3		546.5	
20 days	1,261.8		17.0		982.0		548.1	
50 days	1,259.5		17.0		1,012.7		571.5	
100 days	1,246.6		16.2		985.3		558.1	
200 days	1,176.8		15.4		941.9		569.7	
III. Projections								
	Rante		*Range*		*Range*		*Range*	
	Low	*High*	*Low*	*High*	*Low*	*High*	*Low*	*High*
Q1 2016	1,020	1,127	13.1	14.7	720	870	400	538
Q2 2016	1,139	1,280	16.1	17.3	790	1,050	560	610
Q3 2016	1,175	1,320	16.1	17.9	820	1,090	580	630
Q4 2016	1,251	1,360	15.6	18.4	770	1,130	590	650
Q1 2017	1,279	1,390	16.3	19.1	1,010	1,180	620	670
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		16.2		905		570	

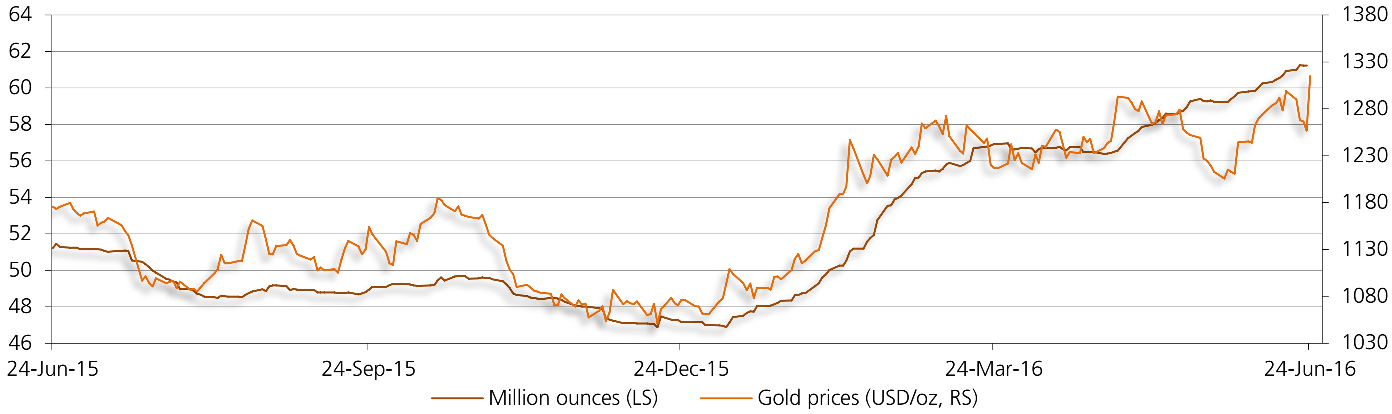
In Euro

	Gold		Silver		Platinum		Palladium	
I. Actual	1,163.7		15.6		864.0		486.2	
II. Gliding averages								
5 days	1,134.1		15.4		866.4		492.3	
10 days	1,141.2		15.5		868.1		484.9	
20 days	1,120.4		15.1		872.0		486.7	
50 days	1,114.5		15.0		895.9		505.6	
100 days	1,109.2		14.4		876.5		496.5	
200 days	1,059.6		13.9		848.0		513.1	
III. Projections								
	Range		*Range*		*Range*		*Range*	
	Low	*High*	*Low*	*High*	*Low*	*High*	*Low*	*High*
Q1 2016	898	993	11.5	13.0	634	767	352	474
Q2 2016	1,036	1,164	14.7	15.8	718	955	509	555
Q3 2016	1,119	1,257	15.3	17.0	781	1,038	552	600
Q4 2016	1,227	1,333	15.3	18.0	755	1,108	578	637
Q1 2017	1,279	1,390	16.3	19.1	1,010	1,180	620	670
IV. Annual averages								
2013	1,052		18		1,108		545	
2014	949		14		1,036		611	
2015	1,045		14		945		619	
2016 (projected)	1,123		15		841		529	

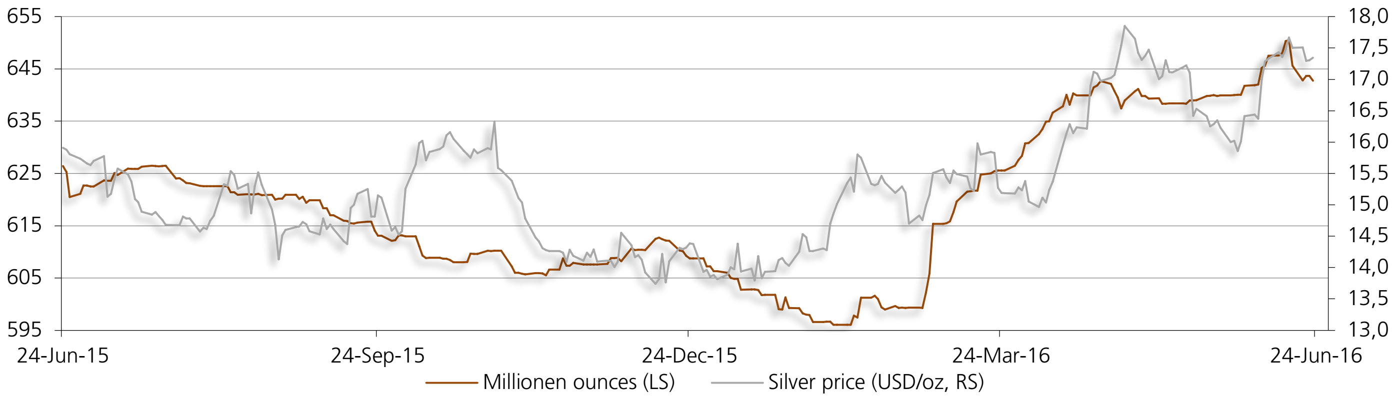
Source: Bloomberg; own calculations. Projections of Degussa Goldhandel GmbH (end of quarter); numbers are rounded.

Precious metals prices and ETF holdings

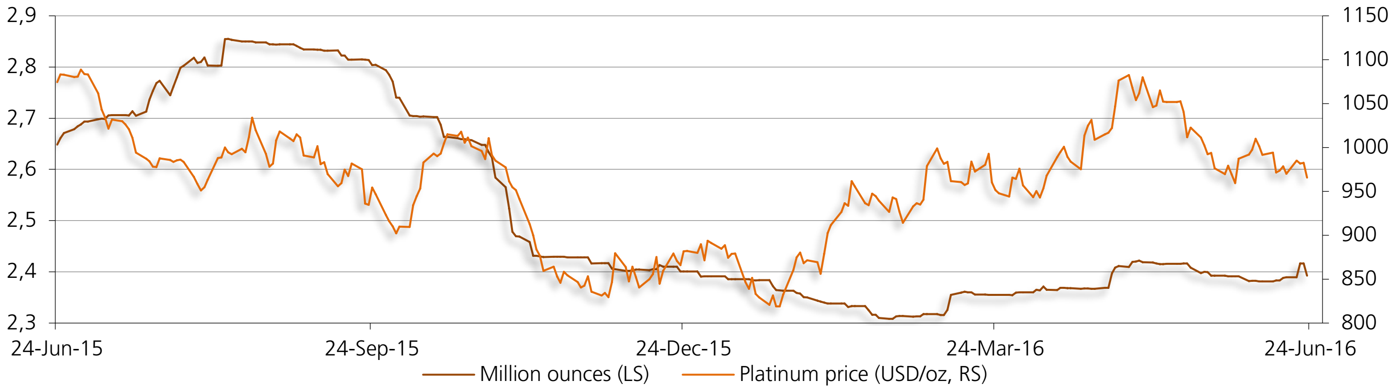
Gold ETFs (million ounces) and gold price (USD/oz)



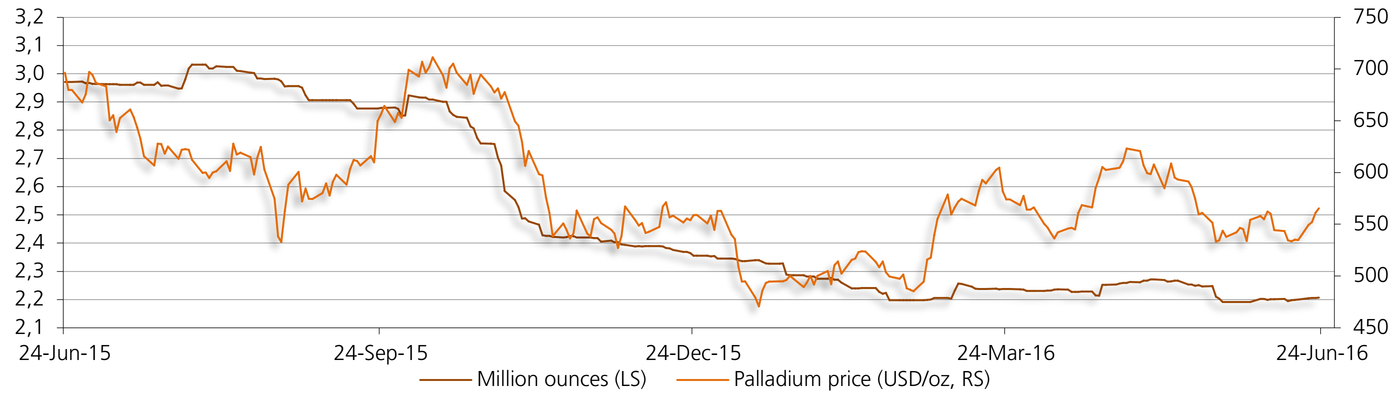
Silver ETFs (million ounces) and silver price (USD/oz)



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



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



Source: Bloomberg.

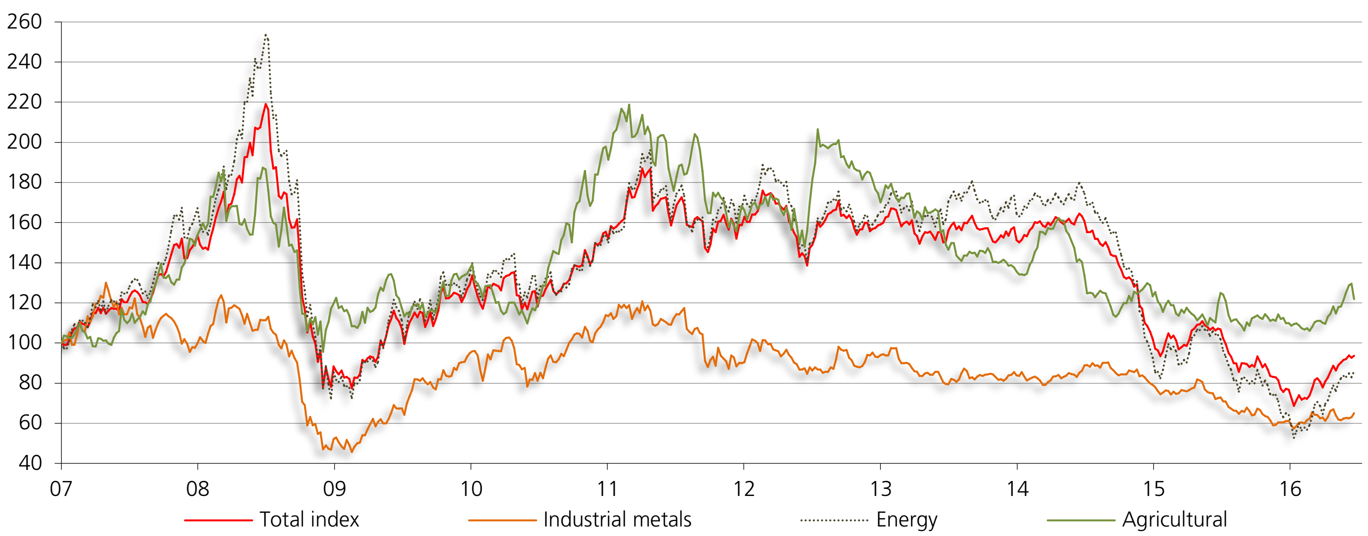
Commodity prices

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	47.52	-4.4	14.9	23.4	13.5	-24.3	32.0	37.9
Brent crude oil	48.32	-4.4	17.2	25.6	15.6	-30.7	31.3	38.8
Gasoline	153.80	-1.4	5.4	13.8	2.3	-21.2	29.8	33.7
Heating oil	145.65	-3.9	19.2	25.9	17.3	-28.0	30.3	37.3
Gas oil	433.75	-4.5	15.8	22.5	15.3	...	30.5	36.8
Natural gas	2.66	4.0	23.4	33.9	5.9	-12.3	38.6	36.3
II. Agriculture								
Corn	382.25	-10.6	6.0	4.1	1.9	-1.9	31.3	25.4
Wheat	459.00	-9.4	-6.4	-2.3	-6.8	-14.0	28.6	26.2
Soy beans	1091.00	-6.2	18.0	24.9	23.6	19.0	21.0	18.0
Coffee	142.90	2.9	8.9	20.3	7.8	1.1	34.4	28.4
Sugar	19.19	-2.7	22.9	34.1	30.7	37.9	23.3	28.9
Cotton	64.85	-0.3	12.3	15.4	0.2	2.9	20.0	16.7
III. Industrial metals								
Aluminum	1642.00	4.4	8.0	4.4	9.0	-5.6	14.9	17.1
Copper	4780.00	6.0	-1.4	1.8	1.6	-20.5	19.6	21.2
Zinc	2039.00	-2.3	12.2	15.6	26.7	-6.8	22.0	27.8
Lead	1730.00	2.1	1.5	-1.3	-3.5	-11.3	18.3	23.8
Iron ore	50.10	0.2	-5.8	8.0	15.4	-18.0	...	...
IV. Precious metals								
Gold	1314.20	3.1	6.6	6.7	23.7	10.4	18.9	16.8
Silver	17.65	1.8	14.8	19.0	27.2	5.4	22.5	23.4
Platinum	975.25	-1.7	0.0	4.6	9.1	-12.3	19.9	23.5
Palladium	549.59	0.8	-2.4	11.2	-2.2	-29.3	28.1	29.6
V. Ratios								
Gold-silver	74.45	1.3	-7.1	-10.4	-2.7	4.7	15.1	15.0
Gold-platinum	1.35	5.1	6.6	1.9	13.2	25.8	17.1	16.9
Gold-palladium	2.38	2.3	8.9	-4.3	26.0	55.7	30.7	29.2
Palladium-platin	0.56	2.9	-2.1	6.6	-10.2	-19.2	21.3	23.3

Source: Bloomberg; own calculations.

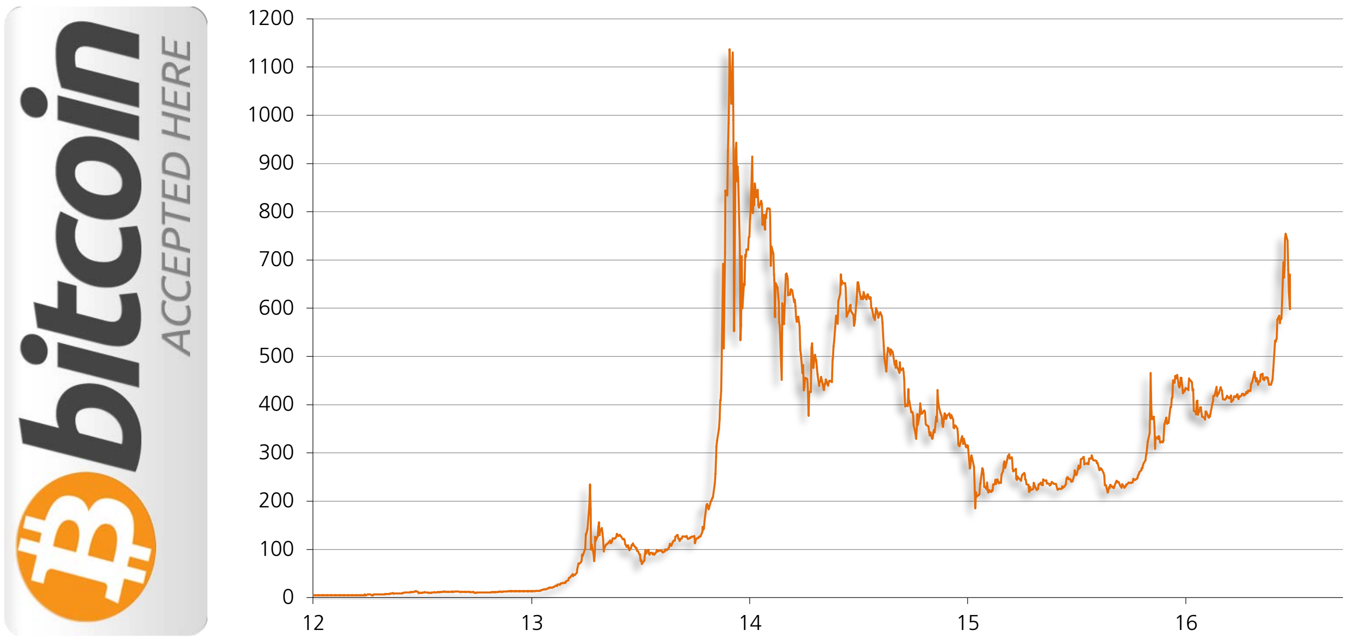
S&P commodity prices (in US dollar terms)



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

Bitcoin, performance of various asset classes

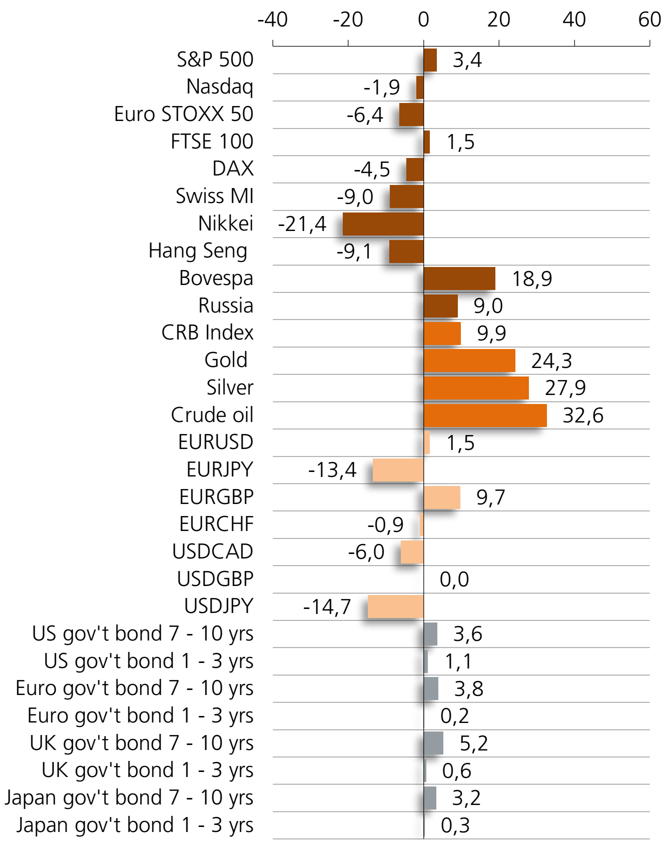
Bitcoin in US dollars



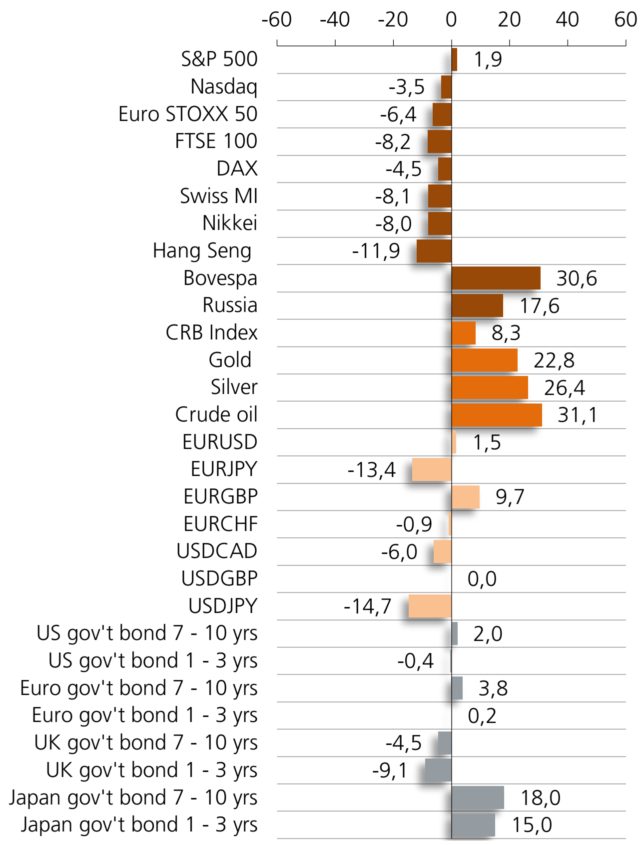
Source: Bloomberg

Performance of stocks, commodities, FX and bonds

(a) In national currencies



(b) In euros



Source: Bloomberg; own calculations

Articles in earlier issues of the *Degussa Market Report*

Issue	Content
24 June 2016	The Credit Cycle and the Price of Gold
10 June 2016	Savvy Investors Say Yes to Gold and Stocks Despite Prospective Fed Rate Hike
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's 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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