Incrementum Liechtenstein

In Gold we Trust 2016

Gold is back! With the strongest quarterly performance in 30 years, the precious metal in Q1 2016 emerged from the bear market that had been in force since 2013. A decisive factor in this comeback is growing uncertainty over the recovery of the post-Lehman economy. After years of administering high doses of monetary painkillers, will the Fed succeed in discontinuing the practice? Or is the entire therapy about to be fundamentally challenged?

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(Most) Prices are closing prices as of June 24th

Generating growth and inflation remains the imperative of monetary policy. The systematic credit expansion required for this just doesn't want to get going. Even the ECB, which initially acted with restraint after the financial crisis, is nowadays stuck in a perennial loop of monetary improvisation and stimulus. **General uncertainty has now increased even further after the surprise outcome of the Brexit referendum.**

After years of pursuing low interest rate policies, central banks have maneuvered themselves into a lose-lose situation: Both continuing and ending the low interest rate regime harbors considerable risks. In an attempt to finally achieve the desired boost to growth, a monetary Rubicon has been crossed in several currency areas with the imposition of negative interest rates. **Gold is increasingly attractive in this environment. It used to be said that gold doesn't *pay* interest, now it can be said that it doesn't *cost* interest.**

As a last resort, even the radical measure of helicopter money is considered these days. As the flood of liquidity has hitherto primarily triggered asset price inflation, newly created money is now supposed to be injected into the economy by circumventing the banking system in order to boost aggregate demand. It seems realistic to expect that such a windfall would indeed ignite the much-coveted price inflation. Whether it will be possible to put the genie back into the bottle once it has escaped is a different question.

An exit from the Fed's monetary emergency programs has been announced for years in the US. This, together with the perception that the economy was recovering, led to a strengthening US dollar in recent years. Commodities and gold weakened as a result. So far, the actual extent of the normalization of monetary policy consists of the discontinuation of QE 3 and a single rate hike by 25 bps.

The US economic expansion appears to have run its course already. Should the rate hike cycle that has been initiated fail, a significant loss of confidence in the central bank's policies and with it the USD appears likely. **This would go hand in hand with rising commodity prices and a return of inflation and would represent a "perfect storm" for gold.**

We believe the time for investing in inflation-sensitive assets has come. Apart from gold, silver and mining stocks offer very interesting opportunities. After several years of drastic adjustments, it is likely that mining shares will once again exhibit strong gold price leverage.

We believe that the events of the past year are validating our views and are maintaining our gold price target of USD 2,300 by June 2018.

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We would like to express our profound gratitude to our premium partners for supporting the "In Gold we Trust" 2016

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1. INTRODUCTION

Every year we delve into the "fount of insight" and subsequently try our best to forge high grade analytical jewels for our readers. Putting together this year's gold report was even more exciting for us than it usually is, for two reasons:

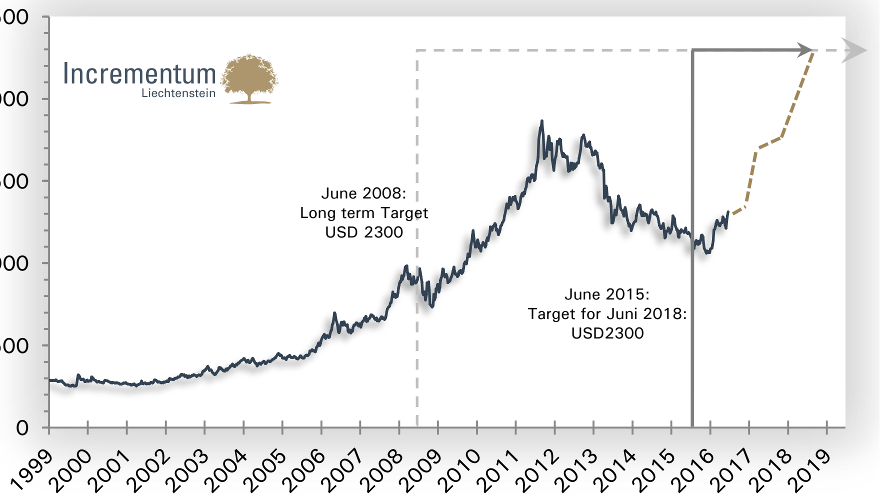
Happy Birthday, "In Gold we Trust"

Firstly, this is an anniversary edition of the report: "In Gold we Trust" has now been published for ten consecutive years.[1]
Every year we are largely isolating ourselves from the outside world for a few weeks in order to write this publication. On the one hand this serves the purpose of sorting through the flood of information and putting the insights we derive from it to paper. On the other hand, by presenting our "big picture" views, we want to provide informative and intellectually stimulating value to our readers. Aside from current events, we want to discuss historical and occasionally also philosophical aspects around the topic of gold. **We want to thank our readers, who are inspiring us year after year anew to make the fascinating subject of gold accessible in an informative, comprehensible and entertaining manner.**[2]

"It would be nice to know when the rest of the world will come around to the gold-friendly view that central bankers have lost their marbles."
Jim Grant

Secondly, we believe that recent events in financial markets are confirming our views more than ever.
On occasion of the anniversary, we permit ourselves to undertake a brief – and definitely self-critical - review of our most important statements regarding the gold price. When gold traded at USD 800 in 2008, we first called for a long term price target at the inflation-adjusted all time high of USD 2,300, which must have appeared outlandish to many market participants at the time.

Gold in US-Dollar since 1999



Source: Federal Reserve St. Louis, Incrementum AG

After the gold price had reached a (nominal) all time high of USD 1,920 in September 2011, a correction started, which – contrary to our expectations – evolved into a full-blown bear market in 2013. While most analysts subsequently expected prices to languish for many years, **we**

[1] For the first time the report isn't published in cooperation with Erste Group. We want to thank Erste Group Research for the longstanding successful cooperation.
[2] We will be happy to receive your feedback at ingoldwetrust@incrementum.li

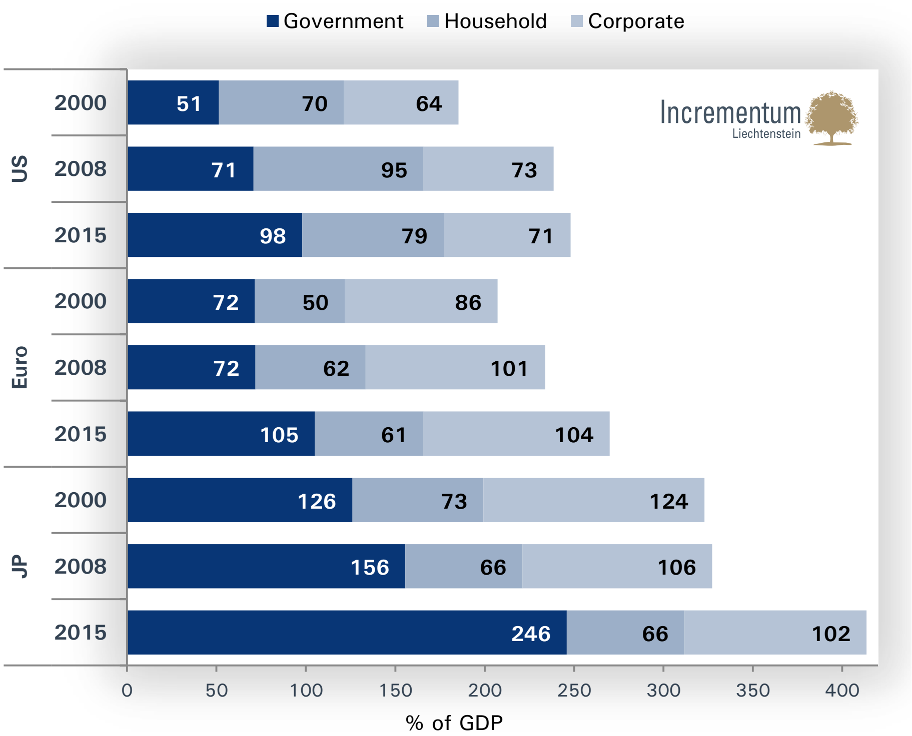
continued to stand by our thesis that gold was still in a secular bull market.

Our main argument was primarily that it is an impossibility to create a "self-sustaining" economic expansion by means of the printing press. Central bankers succeeded in suppressing symptoms, which restored faith in the monetary system and seemingly made gold *passé*. The underlying structural problems creating the crisis in the first place have only gotten worse. We therefore remained optimistic with regards to the overarching trend in the gold price. Last year we felt confident enough to set an **ambitious price target of USD 2,300 by June of 2018**. In the following, we will explain why we believe that our views from then have been validated by events over the last twelve months and why we are maintaining our price target.

"Turn and face the strange
Ch-ch-changes
Don't want to be a richer man
Ch-ch-ch-ch-changes."
David Bowie

Structural over-indebtedness is obvious in many parts of the world. **Since true reform and spending cuts appear illusory and massive tax increases are counterproductive, more growth has to be generated at any cost in order to make it possible to service these debts over the medium term.** And so the monetary all-or-nothing gamble of global central bank experiments continues unabated – in the vain hope that it will eventually bring about the long promised self-supporting and sustainable recovery.

Private and public debt as a ratio of GDP (2000/2008/2015)



Source: BIS, Incrementum AG

Negative interest rates are one of the last hopes to which policymakers cling.[3] This monetary Pandora's box has in the meantime been opened in five currency areas[4]: While just a few years ago, the imposition of negative

[3] Stocker, Ferry: "Geldpolitisches Extremdoping ohne Ausweg" *("Extreme monetary policy doping without way out"), Die Presse (guest commentary), December 30, 2015*
[4] Japan, Eurozone, Switzerland, Sweden and Denmark

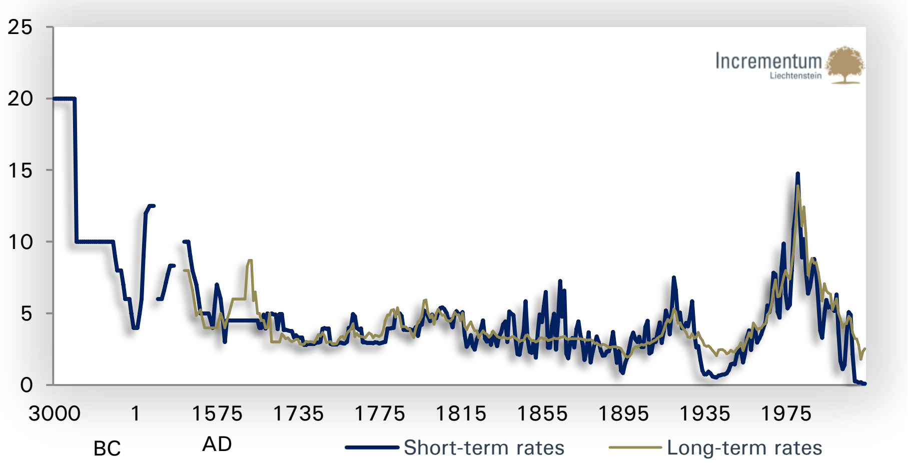
"Markets say the ECB is done, their box is empty… But we are magic people. Each time we take something and give to the markets - a rabbit out of the hat."
Vitas Vasiliasukas, member of the ECB's Governing Council

"Government bonds are the last bastion of the illusion of value."
Christoph Pfluger

rates was largely considered a thought experiment of monetary cranks with too much time on their hands, nowadays the debate is solely focused on how deeply into negative territory interest rates can be pushed. The fatal "unintended consequences" of this monetary wrack and ruin are hardly ever discussed. **Central banks are increasingly becoming hostage to developments which they themselves have helped to set into motion.[5]**

Interest rates have never been as low as today; 5,000 years of data confirm this. In the meantime government bonds valued at more than eight trillion dollars[6] have negative yields to maturity. As an asset class, fixed income securities are more expensive than ever before. By now, central bank interventions have decimated all notions of honest, free market price discovery in bond markets and beyond. The centrally planned bubble in bonds is about to bring about the "euthanasia of the rentier" so craved by Keynes himself and his acolytes. **When this bubble inevitably bursts, it will be abundantly clear how valuable an insurance policy in the form of gold truly is.**

Interest rates at the lowest level in 5000 years



Source: Bank of England, "Growing, Fast and Slow", Andrew G. Haldane, 2015

From "gold *pays* no interest" to "gold doesn't *cost* interest"

Today's interest rate environment will have grave consequences for investors; consequences which will be discussed extensively throughout this report. A foretaste of what to expect was provided by Muenchner Rueck: As the second-largest reinsurance company in the world, with a balance sheet of EUR 280 billion, it felt extraordinary when they announced they have started to put physical cash and gold into storage.[7]

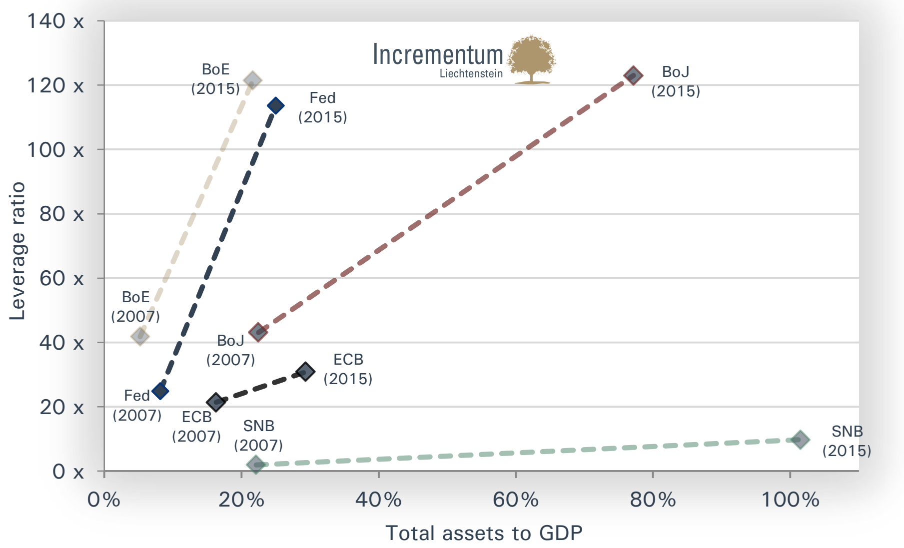
Pyrrhic victory of monetary policy

However, what will happen if it turns out that negative interest rates aren't an effective means for achieving the long wished-for economic expansion either? As a last resort, helicopter money is waiting in the wings. This measure ultimately combines two ingredients that are already problematic on their own: more expansive monetary policy and more expansive fiscal policy. **This instrument could succeed in boosting price inflation and help central banks to achieve one of their goals. It seems however quite possible that they would end up grossly overshooting their objective. Excessive use of helicopter money would change the monetary system fundamentally.**

[5] See: "Data dependent", *Market Outlook Fall 2015*, DALE Investment Advisors
[6] This number probably rose sharply since the Brexit vote
[7] See: "Versicherer hortet Geld statt es der EZB zu geben" (*"Insurance company hoards money instead of depositing it with the ECB"*), *Die Welt*, March 16, 2016

As can be seen below, the worst offender, the Bank of Japan (BoJ), has taken this insanity several steps further than their peers have managed. BoJs leverage ratio[8] and the size of its balance sheet relative to GDP has reached unprecedented levels. While the European Central Bank (ECB) appears conservative in comparison, they are currently doing their best to catch up.

Expansion of central bank balance sheets: 2007 vs. 2015



Source: FRED, ECB, BoJ, BoE, SNB, Guggenheim Investments, Incrementum AG

Peak Monetary Policy?

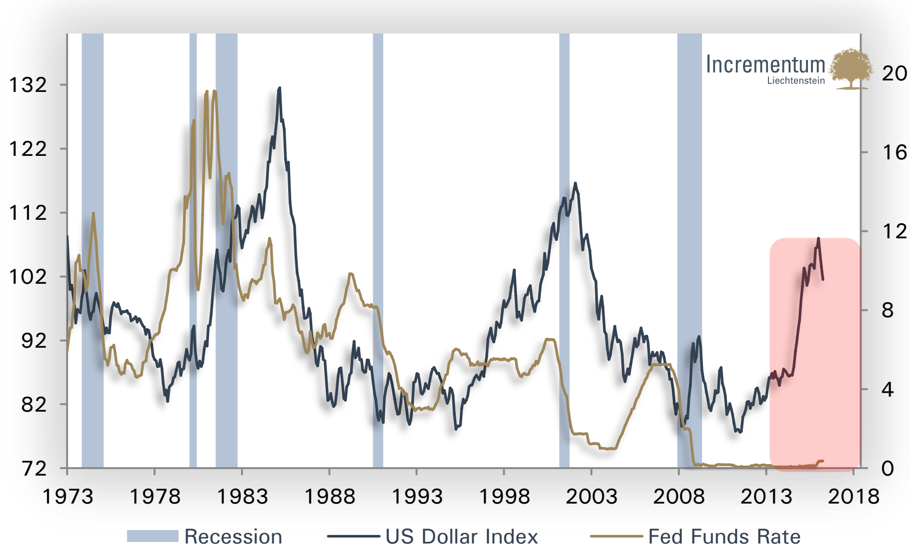
The whole world is in thrall to central bankers imposing ever more expansive policies...the whole world? No! In one currency area administered by indomitable central bankers, normalization of monetary policy has actually begun quite some time ago. The Fed announced the gradual tapering of its QE 3 program in the first half of 2013, and cautiously reduced its asset purchases over the course of 2014. The subsequent step that has been talked up as a new rate hike cycle, so far amounted merely to a hike in the federal funds rate by 0.25% in December of 2015, coupled with an announcement that four additional hikes were in the offing in 2016. However, the stock market quickly demonstrated to Ms. Yellen that a price would have to be paid for rate hikes, by slumping in January and February. **The turnaround in US interest rates played up by the media has failed miserably in our opinion – even though markets have recovered in the meantime. At least, until the Brits opted to leave the European Union.**

"Study predicts gold could plunge to $350 an ounce!"
Market Watch, July 30, 2015

On the back of relative optimism with respect to the US economy we have seen "peak bearishness" on commodities last year and "peak bullishness" on the US dollar. These sentiments depend however crucially on the narrative that there will be a return to a normal monetary policy environment in the US.

[8] The leverage ratio is the sum of equity capital and retained earnings divided by the balance sheet total of central banks.

Trade-weighted US dollar index (lhs) and the effective federal funds rate (rhs)



Source: Federal Reserve St. Louis, Incrementum AG

Why do we believe recent events are validating our views with respect to our gold price target? In our Christmas letter to investors we stated the following:

"Poor Janet does not know what she is doing. She thinks she is driving a car, but the car's steering wheel is not connected to any steering mechanism."
Prof. Antal Fekete

"It is impossible to overlook that investors are focused on US interest rate policy and the global reserve currency at the turn of the year. *In the middle of a currency war driven by deflationary pressures, after eight years and countless delays, expectations regarding a normalization of US interest rate policy are enormous.* ***We believe the potential for disappointment that could result from a further delay in the normalization process or a return to reflationary measures is extraordinarily high."***

"The time is coming (when) global financial markets stop focusing on how much more medicine they will get (QEs) and instead focus on the fact that it does not work."
Russell Napier

What we have witnessed in the markets so far this year is a foretaste of what is going to happen if the expected monetary policy normalization cannot be implemented. The rally in the gold price in the first quarter of 2016 was the strongest quarterly performance in 30 years and has finalized the metal's bottoming process in our opinion. Once the feasibility of current monetary policy is fundamentally questioned, significant consequences for investors will be in the offing. **Volatility, this is to say uncertainty about the future as reflected in market prices, will increase markedly once market participants fully realize that we have gradually moved toward a monetary and fiscal dead end in recent years.**

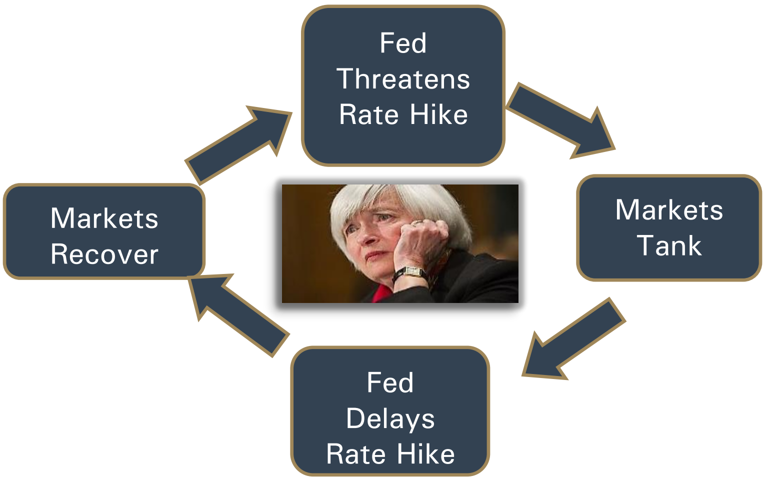
Brexit will be a welcomed excuse for the Fed to reverse their policy

Most market participants still seem to assume that the normalization of US monetary policy has begun. However, they are also aware of the fact that the number of trouble spots in the world is on the rise and that policy-makers continually resort to improvisation. The measures they implement are allegedly without alternative, but ultimately only push problems into the future, while making them even worse in the process. We are absolutely certain, that **the unexpected Brexit may well serve as a welcome excuse for the Fed to communicate a "temporary" halt of the process towards a normalization of monetary policy.**

It is obvious that central banks in particular have become hopelessly entangled in an interventionist spiral; that is, it has seemingly become impossible to exit from "unconventional monetary policies" once they have been adopted, and that a normalization of policy is out of reach everywhere. Most market participants have largely suppressed memories of the monetary near-death experience of 2008. **They have also become inured to the fact that they have to take ever greater risks in order to achieve desired returns.**

"If command economies worked we would all be speaking Russian."
Kyle Bass

It is well-known that central economic planning doesn't work. Why should central planning of monetary policy be any different?[9] The dilemma faced by central banks that have artificially boosted markets with low interest rates and are now striving to achieve a normalization of policy is illustrated by the following chart: Low interest rates have only created the illusion of a healthy economy, which would vanish into thin air as soon as interest rates return to a normal level. Markets have become conditioned to low interest rates; if they are withdrawn, asset prices will plunge – and plunging asset prices helped trigger the two last global recessions. **The current, even graver asset bubble will do the same thing.**



Source: BofA Merrill Lynch Global Research, Incrementum AG

The next Lehman Brothers will probably be a State

The proper lesson that should be drawn from a crisis should be that the system needs to be made more stable (respectively more anti-fragile). Instead, since 2008, the exact opposite has happened. By disallowing change, central banks made the system increasingly fragile and it is now hanging by a thread. Global debt levels have increased by more than 40% since 2007, a trend that has spilled into emerging markets as well, especially China. The balance sheets of the five largest US banks are significantly larger than they were in 2008 and their derivatives books have grown markedly. **According to the *Financial Stability Board,* 29 banks are currently "*too big to fail*" - and furthermore, they are "*too big to bail*" as well: Neither rate cuts nor fiscal injections will be able to mitigate the next banking crisis.**

„Gold is the anticomplex asset, and therefore one asset that an investor should own in a complex world".
Jim Rickards

Gold by contrast represents the opposite of these entanglements and uncovered credit pyramids: Gold represents anti-complexity. This not only refers to the fact that gold has to be physically mined and that its global supply is exceedingly stable. Gold is the ultimate medium of exchange and as such gains in value amid increasing global productivity, which rests on

[9] Note: In our view, it is quite odd that economists are largely opposing price controls, but are making an exception with respect to the level of interest rates.

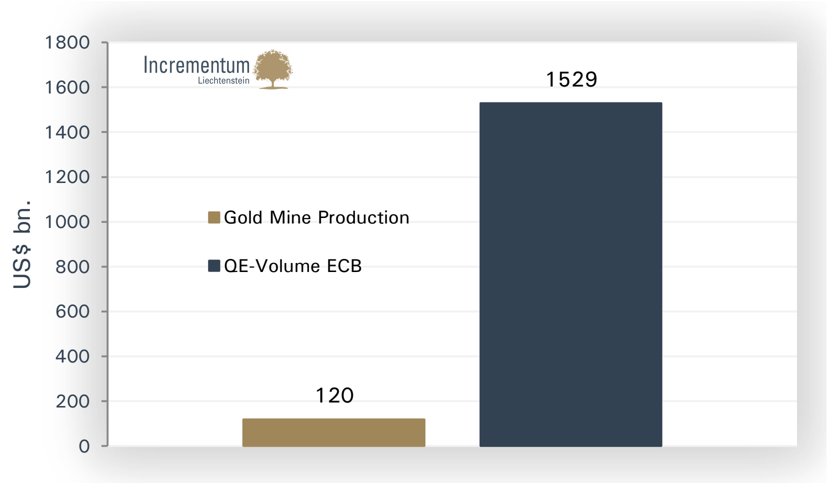
complex exchange relationships and complex technologies. In addition gold is an object of speculation for a complex financial world and the inverse of a complex monetary system. Holding the precious metal provides insurance against monetary interventionism and an endogenously unstable currency system. In a global currency and financial market collapse it will demonstrate the true extent of its robustness.[10]

The amount printed by the ECB and the BoJ in a single month is equivalent to the value of global annual gold production.

In order to put the size of QE programs into perspective, we are comparing them to the value of global gold production. At a price of USD 1,200 per ounce, the ECB could have bought 4,698 tons of gold in the first quarter of 2016 alone with the current volume of its QE program. Thus the ECB's asset purchases in the first quarter of 2016 have exceeded the value of globally mined gold by a **factor of more than 6**.

If the European QE program is continued as planned[11], it would be equivalent (assuming prices don't change) to the value of 21,609 tons of gold, this is to say approximately 12% of the total stock of gold of 183,000 tons mined over the past several thousand years. If one adds the volume of the Bank of Japan's QE asset purchases to this, the total would be equivalent to the value of 39,625 tons of gold over 2016 as a whole. **Incredibly, the ECB and the BoJ are printing an amount equivalent to the value of global annual gold production within just 30 days.**

Value of gold production vs. volume of ECB and BoJ QE purchases 2016



Source: FRED, EZB, World Gold Council, Incrementum AG

"Patience is bitter, its fruit is sweet."
Aristotle

Readers of our annual reports know that we analyze gold primarily as a monetary asset and not as an industrial commodity. In our tenth "In Gold we Trust" report we will once again take a sober look at the big picture and examine whether gold has re-entered a bull market. We will present our conclusion in advance: **Yes, gold is in a new bull market, which will see it rise to new all-time highs. The formidable rally in the first quarter signals what is still to come for gold and markets in general.**

"Almost all books about gold are boring", writes Roland Baader in the introduction to his book *Gold: Letzte Rettung oder Katastrophe* (*Gold: Last*

[10] See: Rickards, Jim: *The New Case For Gold*, Penguin Random House, New York, 2016, p. 57
[11] At its current size of EUR 80 billion per month

Hope of Salvation or Catastrophe?).[12] We are trying to prove the opposite in our annual "In Gold we Trust" report: **Time and again, gold proves to be an interesting topic, as it is mirroring the state of the global economy and monetary architecture. We want to thank you, our readers, for your loyalty and hope you will have an entertaining and stimulating time reading our tenth "In Gold we Trust" report.**

[12] See: Baader, Roland: *Das Ende des Papiergeld-Zeitalters. Ein Brevier der Freiheit* (*The End of the Paper Money Age. A Breviary on Freedom*), ed. Rahim Taghizadegan, Verlag Johannes Müller, Bern, 2016

2. WHERE THINGS STAND

Q1 2016: Gold scores biggest quarterly gain in 30 years

Every bear market is the foundation of a new bull market. *Chrysophiles*, i.e., friends of gold, have had little cause for joy in recent years. The first few months of 2016 restored smiles to the faces of long-suffering gold holders though: **The first quarter of 2016 delivered the best quarterly performance in 30 years**.

At the beginning of our report we want to determine where things stand and critically assess the question whether the recent rally was merely a bear market rally or whether it has ushered in a new phase of the bull market. **Numerous developments are giving us confidence that the vale of golden tears has been left behind and that a formidable uptrend lies ahead**.

a. Retrospective and Status Quo

"*Gold always does what it should do… it just never does it when we think it should.*"
Richard Russell

In our analysis and in the funds we manage, we are primarily focused on inflation-sensitive assets. Similar to 2014, 2015 was another year for the history books for this asset class. The Gold Bugs Index (HUI) intermittently fell by another 50% and traded at the lowest level since 2003. GDXJ, an ETF containing junior mining shares, had at one point declined by 90% from its 2011 all time high, while the oil price halved within a few weeks and traded at the lowest level since 2002. **What 2008 was for the broader stock market, 2015 was for the commodities sector.**

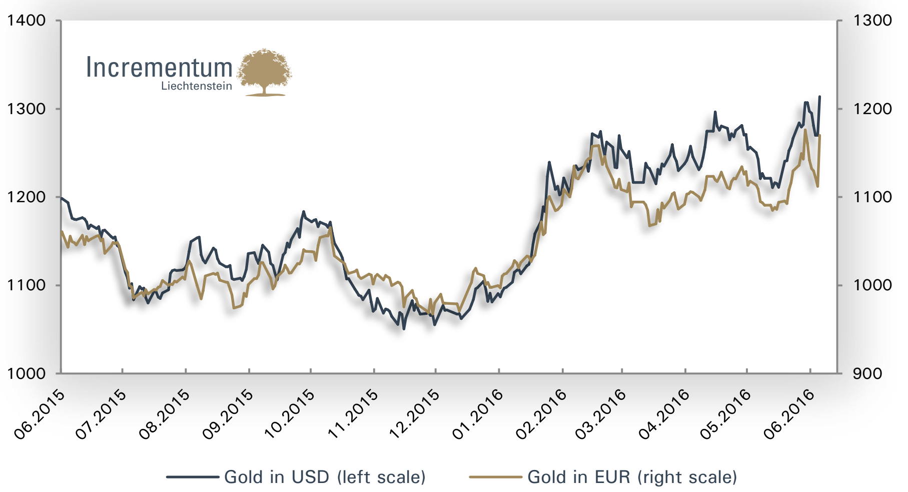
Contrary to the majority of gold analysts, we believe that the analysis of backward-looking supply/demand statistics is scarcely useful for determining gold price trends. Gold is a hard asset and a monetary metal. As such the decisive factors that ultimately influence its price trend relate to the current state of the monetary system. **In our opinion gold analysis should be focused on the following factors:**[13]

- The trend in inflation and inflation expectations
- The level and trend of real interest rates
- The trend of the US dollar and other fiat currencies
- The trend of commodity prices
- Credit spreads (as an indicator of economic confidence and credit growth)
- The trend and momentum of money supply growth
- Opportunity costs (returns offered by stocks, bonds, etc.)
- Confidence in central bank policy, the stability of the financial system and economic developments
- Confidence in the political system and fiscal stability
- The demand for money and the propensity to save

Looking at developments since the publication of our last report on 25 June 2015, the gold price has performed very well. The gain amounts to 10% in USD terms and 8% in euro terms. Mining stocks were able to gain an impressive 60%, while silver advanced by 12%.

[13] See: Pater Tenebrarum: "Gold: Still Misunderstood", *Acting-man.com*, April 8, 2016

Gold in USD and EUR terms since our last gold report

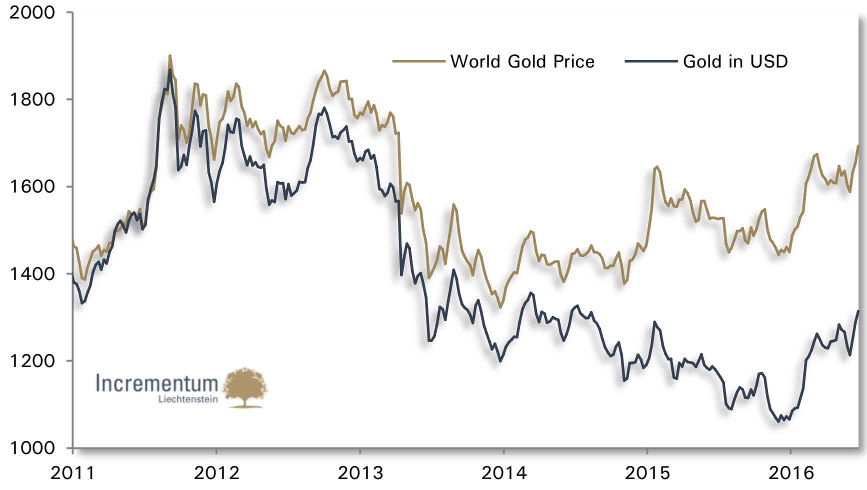


Source Federal Reserve St. Louis, Incrementum AG

World gold price in an uptrend since 2014

The following chart shows the so-called "world gold price". Instead of using USD or EUR terms, it expresses the gold price in terms of the trade-weighted exchange rate of the US dollar. **If one compares the world gold price to the USD gold price, one can see that there has been a growing divergence between the two since 2014.** This was primarily due to increasing confidence in the US economy's recovery and the associated rate hike fantasies, which boosted the US dollar.

World gold price in an uptrend since 2014



Source: Federal Reserve St. Louis, Incrementum AG

The decisive factors driving the positive trend of recent months were in our opinion primarily the following:

- **A weaker US dollar**
- **Rising commodity prices**
- **A turnaround in the inflation trend**
- **A decline in real interest rates**
- **Widening credit spreads**
- **Weakness in US and European financial stocks**

2015 was characterized by losses for gold in terms of several currencies, inter alia in USD, CHF, GBP and JPY. However, these have been more than compensated for since early 2016. **We continue to be impressed by gold's average annual performance since 2001,** which between 2001 and 2016 amounts to 10.71%. **Gold has thus outperformed virtually every other major asset class in this time period – in spite of suffering a massive correction.**

Performance of gold since 2001 in terms of various currencies

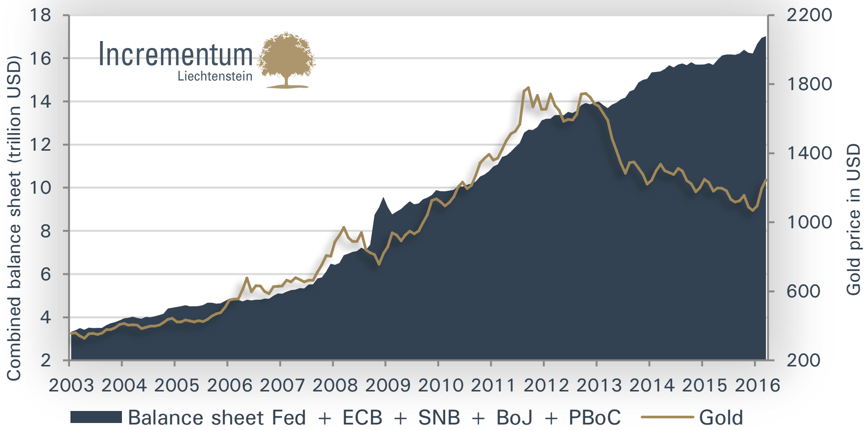
	EUR	USD	GBP	AUD	CAD	CNY	JPY	CHF	INR	Average
2001	8.10%	2.50%	5.40%	11.30%	8.80%	2.50%	17.40%	5.00%	5.80%	7.42%
2002	5.90%	24.70%	12.70%	13.50%	23.70%	24.80%	13.00%	3.90%	24.00%	16.24%
2003	-0.50%	19.60%	7.90%	-10.50%	-2.20%	19.50%	7.90%	7.00%	13.50%	6.91%
2004	-2.10%	5.20%	-2.00%	1.40%	-2.00%	5.20%	0.90%	-3.00%	0.90%	0.50%
2005	35.10%	18.20%	31.80%	25.60%	14.50%	15.20%	35.70%	36.20%	22.80%	26.12%
2006	10.20%	22.80%	7.80%	14.40%	22.80%	18.80%	24.00%	13.90%	20.58%	17.24%
2007	18.80%	31.40%	29.70%	18.10%	11.50%	22.90%	23.40%	22.10%	17.40%	21.70%
2008	11.00%	5.80%	43.70%	33.00%	31.10%	-1.00%	-14.00%	-0.30%	30.50%	15.53%
2009	20.50%	23.90%	12.10%	-3.60%	5.90%	24.00%	27.10%	20.30%	18.40%	16.51%
2010	39.20%	29.80%	36.30%	15.10%	24.30%	25.30%	13.90%	17.40%	25.30%	25.18%
2011	12.70%	10.20%	9.20%	8.80%	11.90%	3.30%	3.90%	10.20%	30.40%	11.18%
2012	6.80%	7.00%	2.20%	5.40%	4.30%	6.20%	20.70%	4.20%	10.30%	7.46%
2013	-31.20%	-23.20%	-28.80%	-18.50%	-23.30%	-30.30%	-12.80%	-30.20%	-19.00%	-24.14%
2014	12.10%	-1.50%	5.00%	7.70%	7.90%	1.20%	12.30%	9.90%	0.80%	6.16%
2015	-0.30%	-10.40%	-5.20%	0.40%	7.50%	-6.20%	-10.1%	-9.90%	-5.90%	-3.75%
2016ytd	20.70%	24.50%	32.90%	21.10%	16.10%	26.50%	5.40%	20.10%	27.10%	21.60%
Average	10.50%	11.56%	12.50%	9.36%	10.37%	9.67%	10.21%	8.36%	13.87%	10.71%

Source: Incrementum AG, Goldprice.org

"Asset purchases may act like a sweet poison for governments. The rude awakening may come when the purchases are reduced or stopped altogether."
Jens Weidmann

The following chart illustrates that there has been a divergence between money supply growth and the gold price trend since 2011. It shows the combined balance sheet totals of the Fed, ECB, SNB, PBoC and the Bank of Japan. **When the supply of fiat currencies grows faster than the stock of bullion, the gold price should rise and vice versa.** The chart indicates that either the gold price has corrected too much, or central bank balance sheets are set to stagnate or decline in the future. Anyone who studies economic history knows that barely any precedents for a sustained reduction of central bank balance sheets exist so far. **This is therefore a strong indication that the gold price still has quite a bit of room to catch up.**

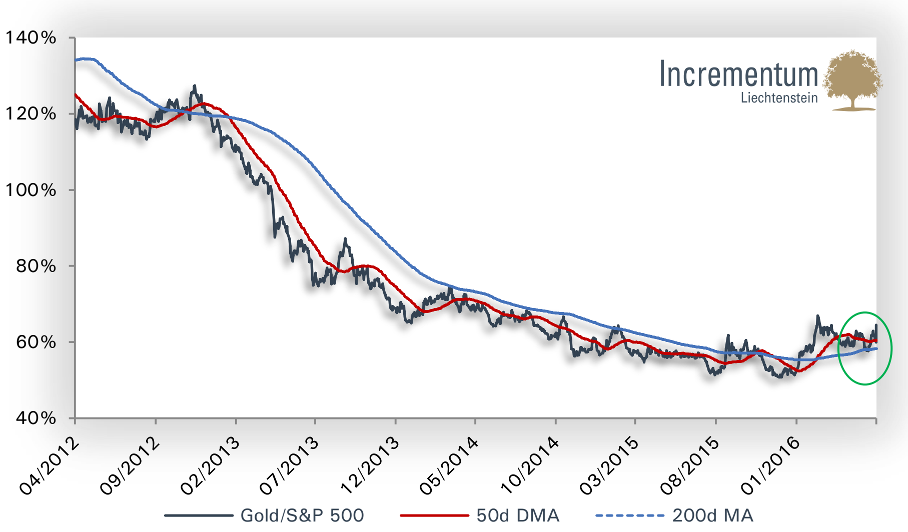
Combined balance sheet totals Fed+ECB+SNB+PBoC+BoJ in USD billion



Source: FRED, PBoC, SNB, Incrementum AG

If one compares the performance of the gold price to that of the stock market, one can see that the relative weakness in gold which has persisted since the autumn of 2011 appears to be ending. We already pointed out last year that the momentum of this trend was weakening noticeably. Now it appears as though the downtrend has ended and a turnaround has begun. **After the past several years of gold underperforming against stocks, the tide may be turning in favor of gold with respect to the coming years**.

Gold/S&P 500 ratio

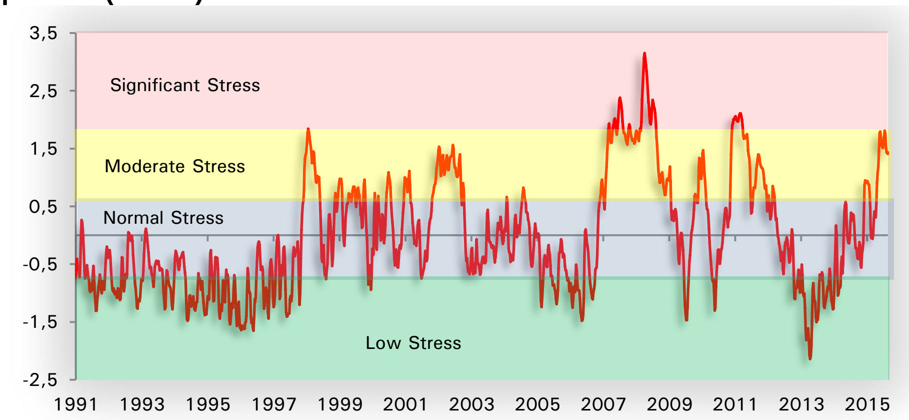


Source: Federal Reserve St. Louis, Incrementum AG

"It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so."
Mark Twain

The degree of uncertainty among financial market participants also represents an important factor affecting the gold price. The Cleveland Financial Stress Index (CFSI) also points to rising financial market risks. The risk index which is calculated by the Federal Reserve in Cleveland measures the "state of health" of the US financial system and is supposed to predict systemic risks. Altogether 11 sub-indicators from the areas of credit, equities, currencies and interbank markets are combined into a single indicator, which in turn is divided into four levels. The levels indicate low, normal, moderate and significant periods of stress. **Since early 2014 the index has re-entered an upward trend and has recently reached the highest level since 2011**.

Cleveland Financial Stress Index indicates "moderate" stress levels at present (level 3)



Source: Bawerk.net, Federal Reserve St. Louis, Incrementum AG

b. Are Inflation Dynamics Changing?

"We may well at present be seeing the first stirrings of an increase in the inflation rate — something that we would like to happen."
Stanley Fischer, Fed Vice-Chair

Price inflation dynamics are in our opinion the element that can tip the scales toward a sustained upturn in the gold price. The trend in US price inflation is particularly important for the global environment. We are going to discuss the latter in further detail below.

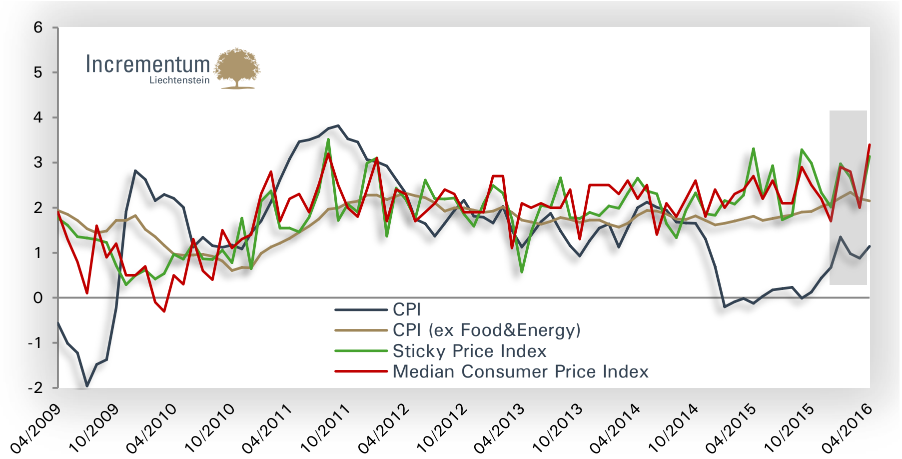
In last year's report we wrote the following on the title page:

"We are convinced that we are now close to a decisive fork in the road: the disinflationary trend will (have to) be broken. Rising price inflation rates are possible both in conjunction with a revival in economic activity and in a stagflationary environment. In both cases, inflation-sensitive investments including gold and gold mining stocks will benefit."

Has the momentum of inflation, which has been in a pronounced disinflationary trend since 2011, finally turned? Even though we are critical of official price indexes due to their methodological limitations, we nevertheless want to take a look at US consumer price inflation rates.

Already in early 2016 a change could be observed in the rolling rate of change of consumer prices. It appears as though a low has been put in and price inflation indexes are now beginning to broadly trend upward again.

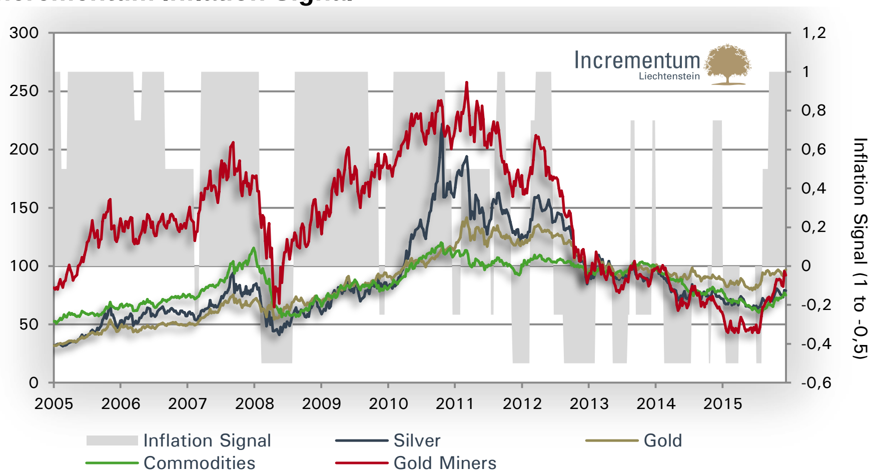
Various US inflation indexes



Source: Federal Reserve St. Louis, Incrementum AG

Due to the importance of inflation momentum, we have developed a proprietary inflation signal which we use as a guide for investment allocations in our funds. The signal is exclusively based on market-derived data and has a shorter reaction time than the usual inflation statistics. Depending on the signal's message we shift allocations into or out of inflation-sensitive assets – primarily mining stocks, commodities and energy stocks. **For the first time in 24 months the Incrementum Inflation Signal indicates that a full-fledged inflation trend is underway.**

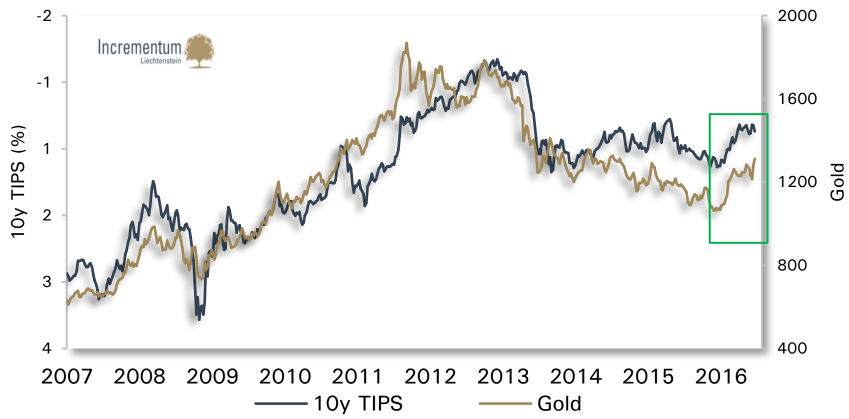
Incrementum Inflation Signal



Source: Yahoo Finance, Incrementum AG

The yields on inflation-protected bonds are exhibiting a strong (negative) correlation with the gold price. **If one compares the gold price to the yields of 10 year inflation-protected US Treasuries (TIPS), one can see that the breakout in the gold price was accompanied by an increase in inflation concerns being priced in.**

Gold price vs. yield on 10-yr. TIPS (inverted)



Source: Federal Reserve St. Louis, Incrementum AG

According to our statistical analysis, a sustainable rally in the gold price is improbable if the gold/silver ratio rises concurrently. A declining g/s ratio significantly increases the probability that gold has entered a bull market. We are paying particular attention to the ratio's current position, as a change in trend has possibly occurred in recent weeks. **A renewed downtrend in the ratio would signal a positive outlook for gold, and an increase in the momentum of price inflation as well.**[14]

[14] See: "The gold-silver ratio as an indicator measuring inflation momentum", *In Gold We Trust Report 2015*, p. 38-39

Gold/silver ratio

Source: Incrementum AG

All in all we believe there is a very high probability that the trend in inflation has changed and that reports in the financial media will increasingly reflect this fact in coming months.

c. Is the Bull Back?

"There is no training, classroom or otherwise, that can prepare for trading the last third of a move, whether it's the end of a bull market or the end of a bear market."

Paul Tudor Jones

"Whenever you find yourself on the side of the majority, it is time to pause and reflect."
Mark Twain

To correctly assess whether or not a stock, a currency or a commodity is in a bull market is of decisive importance for investment success. In the following paragraphs we therefore want to briefly turn to the question whether gold is in a new bull market or merely in a correction phase within an ongoing bear market.

According to Wikipedia: *"A bull market is a period of generally rising prices."* More technically speaking, a bull market represents an ***overarching upward trend,*** which is characterized by a succession of *higher lows* and *higher highs*.

"*Even when the experts all agree, they may well be mistaken.*"
Bertrand Russell

The Dow Theory describes three types of trends. Charles Dow, the father of modern technical analysis, compares these three trends to the behavior of water in the oceans. The primary trend stands for the tides and shows the current overarching market direction. Secondary trends stand for waves, and tertiary trends, which are not particularly important, for small changes on top of these waves. The primary trend can be divided into the following stages:

- ***Accumulation phase:*** the market has just turned up, well-informed investors are buying.
- ***Public participation phase***: as the media begin to report on the rise in prices, many investors decide to enter the market.

- ***Distribution phase:*** the interest of the broader public increases greatly, the market is near a peak, but smart investors are already beginning to sell.[15]

"We're very bullish on gold, which is the anti–paper money, of course, and is underowned by investors around the world."
Paul Singer

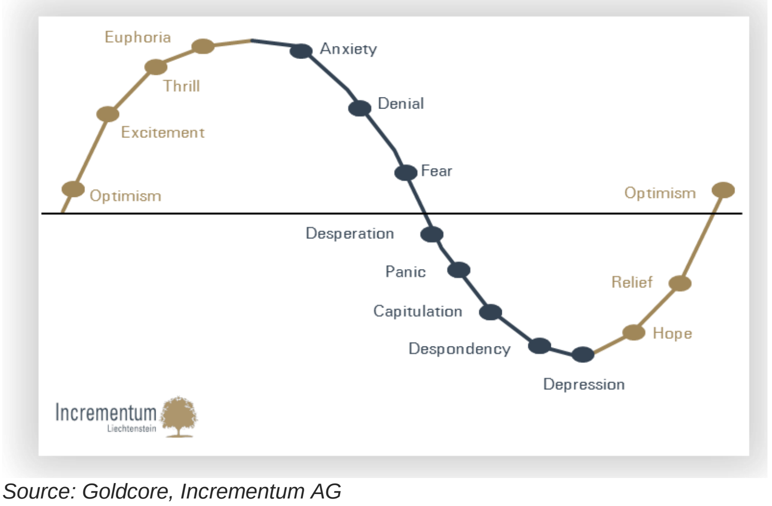
We see reports that highly successful macro investors such as Stanley Druckenmiller, Carl Icahn, Paul Singer and George Soros have recently amassed large gold-related positions as an indication that the accumulation phase is already behind us and that the market is now in the transition period to the second phase (public participation).

The following technical factors are relevant for identifying a bull market in addition to this:

- **A rally of 20%+ from the lows**
- **Rising moving averages** (50/100/200 day ma). Ideally the shorter-term moving averages should be above the longer-term ones. The greater the gap between them, the stronger the momentum of the upward trend.
- **Market breadth** is also an important factor. In contrast to the stock market, in which market breadth can be defined via the performance of sub-sectors, the exercise is a bit more difficult in the case of gold. However, one can employ different currencies as a suitable proxy. Since gold already has put in a low relative to many currencies in 2013 already and is now rising in terms of nearly every currency, this indicator also appears to point to a new bull market being underway.

Investor psychology is also a crucial aspect in the evaluation of bull and bear markets. In the early stages of a bull market the enthusiasm of investors is usually very subdued, scepticism and disinterest tend to predominate. This changes gradually as the cycle progresses, until euphoria and buying panics predominate near the end of the trend. **The following chart illustrates this emotional roller-coaster.**

Cycle of market emotions



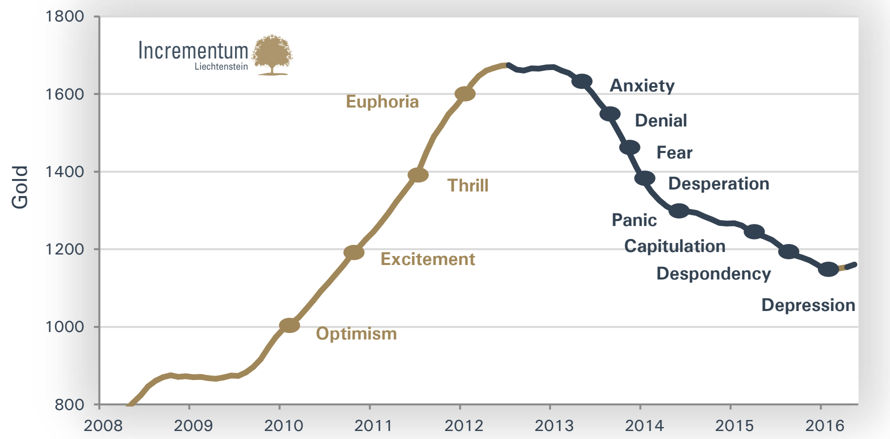
Source: Goldcore, Incrementum AG

"Being a contrarian is tough, lonely and generally right."
Lance Roberts

If one compares this idealized sentiment cycle to the gold price chart (360-day moving average), one can see that the point of maximum frustration was very likely reached last year – in last year's gold report we were speaking of the market as a "pain maximizer" in this context.

[15] See: Murphy, John J.: *Technical Analysis of the Financial Markets: A Comprehensive Guide to Trading Methods and Applications*, New York Institute of Finance, Prentice Hall Press, 1999

Cycle of investor sentiment applied to the gold price

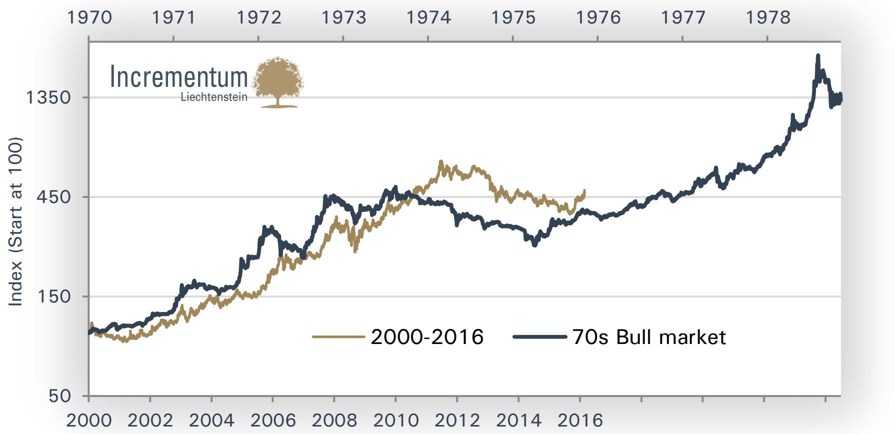


Source: Federal Reserve St. Louis, Incrementum AG

"The two most powerful warriors are patience and time."
Leo Tolstoy

A comparison with past bull markets is interesting as well. In our previous studies we have compared the recent correction with the *mid-cycle correction* between 1974 and 1976. The similarities between the two periods are in particular pronounced disinflation, rising real interest rates and extremely high pessimism with respect to the future trend of the gold price. If one compares the price trends of the two time periods, it can be seen that the bear market since 2011 had roughly the same structure and depth as the 1974-1976 mid-cycle correction (they differ in terms of duration though).

Gold bull markets of the 1970s (black line) and 2000s (golden line) compared



Source: Federal Reserve St. Louis, Sharelynx.com, Incrementum AG

Conclusion:
Numerous technical and sentiment indicators are suggesting that the gold price has gone through a traditional cycle which culminated in a selling panic and a peak in pessimism last year. **It appears as though a new bull market cycle has now begun. The fundamental factors which support this assumption will be discussed in the following pages.**

d. Anecdotal Evidence of Three Worldviews

In the course of dozens of events and countless meetings with clients and professional market participants (e.g. asset managers, fund managers, private bankers, etc.) we have been able to discern roughly three different worldviews with respect to the assessment of the overall economic situation. **We want to outline these below**:

1. Believers in the system

Among these are for example financial analysts and market pundits who believe that the Keynesian economic policy which has been implemented in the wake of the global financial crisis is in principle correct and necessary. According to their view, the economy is in a recovery process, which due to unforeseeable regional economic difficulties (euro area debt crisis, slowing growth in China, etc.) has developed at a slower pace than expected. All in all, the "patient" that is our global economy, is however on the way to regaining his health, and the financial markets are in the process of gradually sounding the "all clear". The supervisory authorities have moreover learned much-needed lessons from the crisis, and have lowered systemic risk by implementing better regulations. **This view is equivalent to the current mainstream economic worldview**, which we will elaborate on in the third chapter.

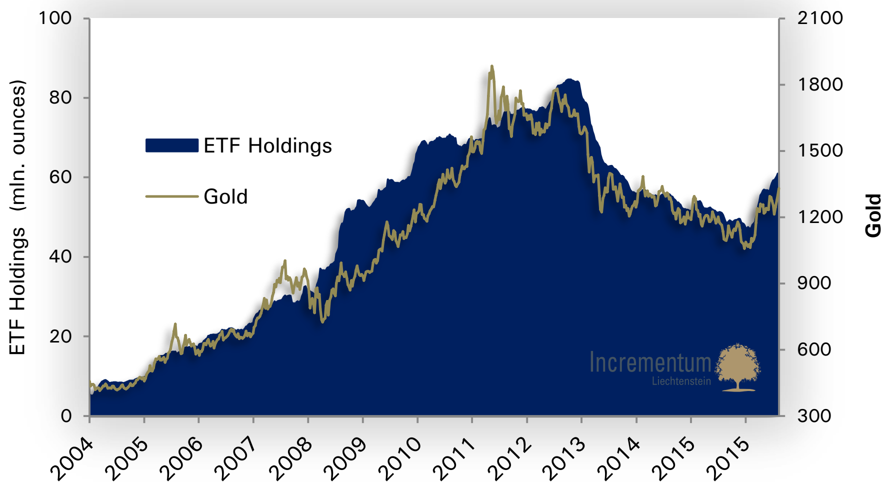
Representatives of this camp are increasingly critical of the fact that expansive monetary policy has lately been "*the only game in town*". According to believers in the system "secular stagnation" or the "new normal" are the paradigms which best describe the current phase of weak growth. This state of affairs is supposed to be countered by more stimulus such as fiscal stimulus measures and/or "helicopter money" (when and where appropriate, coupled with structural reforms). **The gold allocation in the portfolios of this group has been extremely low, respectively zero over the past decade.**

2. The Sceptics

This camp comprises people who harbor doubts about the sustainability of the extreme economic policy measures that have been taken. After the crisis many of them instinctively already came to the conclusion that fighting a debt crisis with even more debt and extravagant monetary policy measures is probably not an appropriate therapy. This group inter alia includes hedge fund managers and traditional asset managers who are often unable or unwilling to communicate their critical assessments, especially publicly.

With respect to gold allocations within the portfolios managed by this group, many have acted in a pragmatic manner: **In the years after the crisis they accumulated a lot of gold, but these positions were reduced and in some cases even sold in their entirety in recent years (often on account of performance pressures).** The outstanding volume of gold ETF bullion holdings reflects this development. The recent significant increase in ETF inflows shows that inter alia these sceptical investors have partly returned to the market. ETFs have purchased 367 tons of gold in the first quarter, which represents the largest inflow since the first quarter of 2009.

Total amount of bullion held by ETFs (m. oz.) vs. the gold price



Source: Bloomberg, Incrementum AG

Due to the current "investment emergency" and the pressures exerted by reporting structures and benchmarks many sceptics have in recent years increasingly joined the bandwagon in traditional "risk-on" asset classes like stocks and high yield bonds. However, in many cases this was done half-heartedly, in order to "ride the wave".

It is remarkable how many market participants are questioning the sustainability of current economic and monetary policy measures behind closed doors. It is also worth noting that the group of sceptics has in our assessment gradually grown in recent years and has in the meantime quite likely become the largest group.

We believe the sceptics could play a particularly important role as marginal buyers in driving the future gold price trend: Many of them have not yet invested in gold, but are keeping an eye on it from the side-lines. As soon as the narrative of the slow recovery of the economy no longer holds up, they will be among the first to implement shifts in portfolio allocations in favor of gold.

3. *Critics of the System*

"Once you become an Austrian, you remain an Austrian."
Mark Valek

Members of this group are convinced that the monetary architecture is systematically flawed. Criticism of the system can be formulated on the basis of several schools of thought, or at times even based on common sense. In our opinion, the most consistent critical assessment of the status quo can be performed by employing the analytical methods of the Austrian School of Economics. Austrian theory is able to explain systematically why the current economic recovery is neither sustainable nor self-supporting.

People who have come to adopt this critical stance have one thing in common: It is almost impossible for them to regain faith in the system. **Thus there is a one-way street into this camp, i.e., this is a group that is consistently growing**.

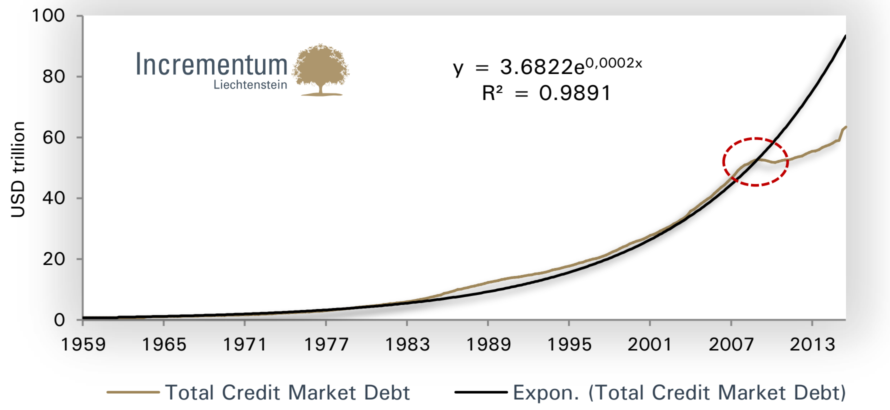
We are making no secret of the fact that we belong to the third group. [16] **The instability of growth induced by credit expansion, which we**

[16] We regard criticism of the system only as serious, if it results from investigations free from value judgements. Our findings are based on the methodological framework of the Austrian

"The greatest shortcoming of the human race is our inability to understand the exponential function."
Albert Bartlett

routinely criticize, is impressively illustrated by the following chart. Since 1959, "total credit market debt" - the broadest debt aggregate in the US – has increased by 9,100%, its annualized growth rate amounts to 8.26%. In every decade, outstanding debt has at least doubled. In order to get credit-induced GDP growth to restart again after the volume of total outstanding debt dipped slightly for the first time in 2009, the Fed implemented a series of never before seen monetary policy measures.

Growth in total credit market debt diverges from its exponential trend



Source: Federal Reserve St. Louis, Incrementum AG

There is no reverse gear that can be engaged in this monetary system – the money supply has to be increased incessantly, which in turn means that the amount of credit in the system continually rises as well.

The fact that the steady expansion of the volume of outstanding debt has run into snags in recent years characterizes the current critical phase in the monetary system's evolution. Over the medium-term, the record level of debt will either be dealt with by defaults or a forceful reflation, possibly in the form of "helicopter money".

Due to this critical assessment of the situation, we continue to argue in favor of a strategic allocation to physical gold for long-term oriented investment portfolios.

"Where things stand"- Summary

"The Fed has borrowed more from future consumption than ever before."
Stanley Druckenmiller

We went far out on a limb last year by projecting a price target of USD 2,300/ oz. for June 2018 amidst a pronounced bear market. **The first step in this direction appears to have been taken.** The commodity sector, as well as gold, seems to have formed a bottom. Early this year gold celebrated an impressive comeback, exhibiting strong vital signs.

We are nevertheless still a long way from our USD 2,300 price target. In order to reach it, currently prevailing perceptions of the global economic situation will have to change. **Moreover, the feasibility of interventionist monetary and fiscal policy will have to be fundamentally questioned.**

There are more and more signs that scepticism is rising. Something quite telling happened at Ms. Yellen's press conference after the March

School. We want to emphasize that we are opposed to system rejection for mere ideological reasons.

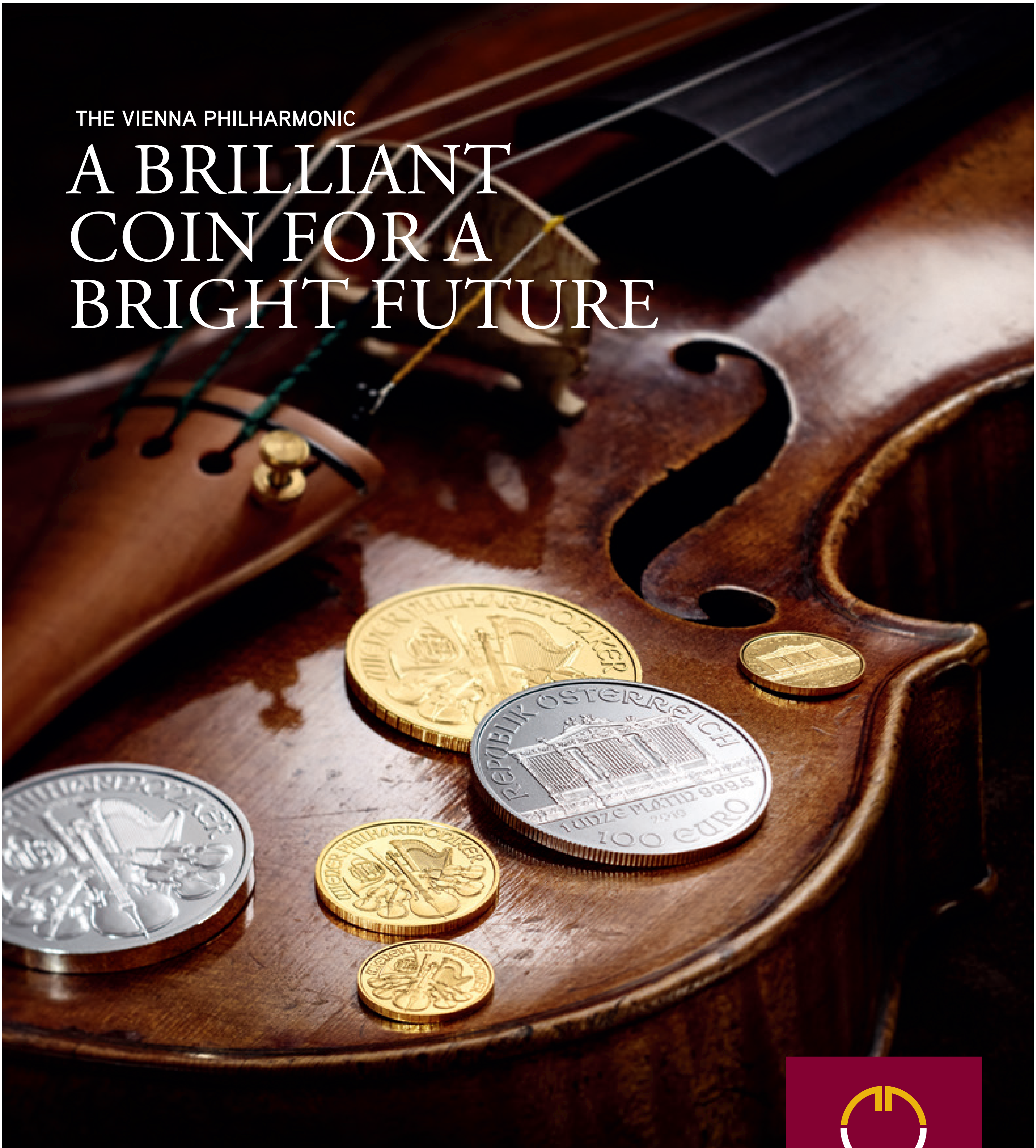
FOMC meeting. The first question that CBNC journalist Steve Liesman asked her was:

“Does the Fed have a credibility problem […]?”[17]

With respect to future rate hikes, the verbal dance on eggshells commonly known as the Fed's communication policy doesn't exactly inspire confidence, as no clear monetary policy strategy is discernible. **A significant downturn in economic growth, followed by a renewed stimulus program including even more extreme measures would increase uncertainty further. In this case it would have to be expected that the gold price, commodity prices and also price inflation, would rise.**

In our opinion, this or similar scenarios have a high probability of eventuating within the coming 24 months, and we are therefore sticking with our price target of USD 2,300 by June 2018. **The current combination of obvious over-indebtedness, expansive fiscal and monetary policy and the unrelenting determination of central banks to generate price inflation, continue to represent a stable foundation for further advances in the gold price.**

[17] https://youtu.be/aodavML_cB8?t=15m



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3. THE ECONOMIC NARRATIVE CRUMBLES

"Winter is coming."
Ned Stark of Winterfell

The financial crisis of 2008 was undoubtedly the most important *caesura* in modern economic history. Once the dust had settled after the chaotic months around the turn of the year 2008/2009, an extensive search for the reasons of the crisis began. Who or what was responsible for the greatest crisis since 1929 remains disputed. One thing can however be stated with certainty: **The measures that were taken in order to subdue the crisis have been met with widespread approval in the financial world.**

Source: The Atlantic, Time Magazine

a. The Dominant Narrative

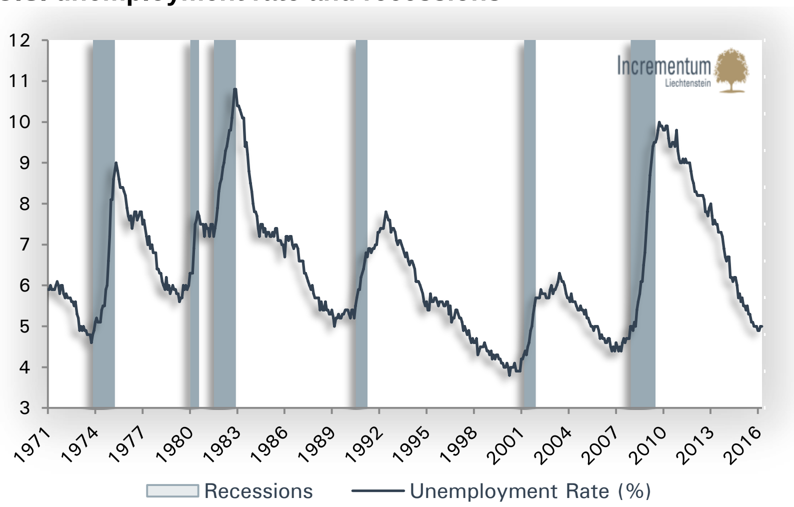
The following economic worldview continues to predominate in the press; it is derived from statements by central bankers, politicians, representatives of supra-national organizations (IMF, World Bank, G7, G20, OECD, etc.), as well as the majority of financial market pundits:

- **The Keynesian economic policies which have been implemented in the wake of the "global financial crisis" were fundamentally correct and necessary.**
- The US has taken the most forceful economic policy actions in order to counter the crisis and has therefore returned much faster to economic growth than all other developed nations.
- **The US economy is in a process of recovery since the crisis,** the "patient" is on the way to regaining his health.
- **Due to the progressing recovery it is now possible to slowly normalize monetary policy again.**
- **Central banks have things under control and can always provide financial market backstops if necessary – the Greenspan/Bernanke/Yellen/Draghi/Kuroda put is alive and well.**

Not least because the US is seen as a model country and the engine of global growth, the US economy is watched very closely. **Should the normalization of monetary policy, which has been postponed several times already, not succeed, we believe the economic narrative could be shaken to its core. The recent Brexit vote may be exactly the excuse the Federal Reserve need to postpone its rate hikes for the indefinite future.**

Proponents of the dominant narrative cite the decline in the unemployment rate in recent years as the main evidence for the success of US economic policy. However, labor market data are a lagging economic indicator and as such would not necessarily be relevant in a free market. Since the Fed is responsible for keeping the unemployment rate at a low level as part of its dual mandate, market participants are able to anticipate the Fed's likely actions on the basis of employment data. **Due to the growing dependence on easy money, interest in labor market data has increased strongly in recent years.**

U.S. unemployment rate and recessions



Source: Federal Reserve St. Louis, Incrementum AG

Whether the Fed will be able to continue with the rate hike cycle it has initiated and will start to reduce the "temporary increase in the money supply" again, is probably the litmus test that will show whether the US economy has truly recovered. Should monetary policy however become more expansive again due to an economic slump, the effects on the financial markets will probably be grave. **The 18 trillion dollar question is therefore: When will the next recession strike and how will the Fed react?**

b. The Recession that Must not Happen

"We are approaching the longest expansion in history and it is fake."
Dave Collum

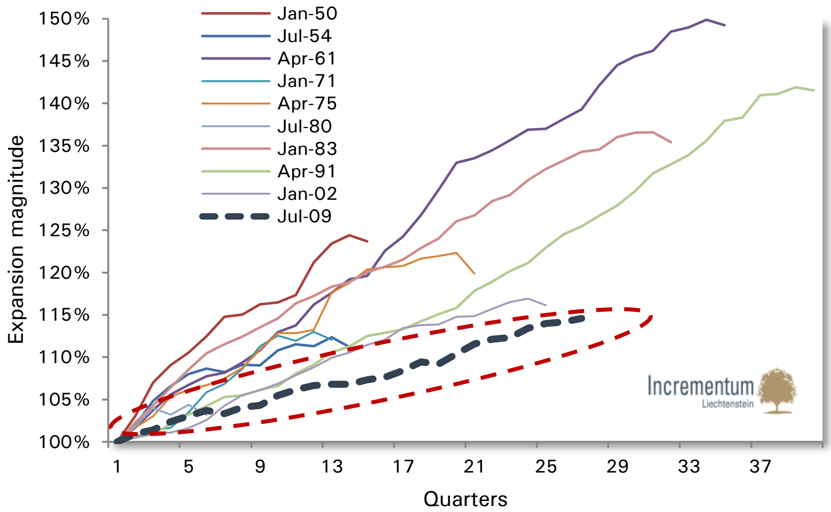
"I find myself in an unpleasant situation. I had preached for forty years that the time to prevent the coming of a depression is the boom. During the boom nobody listened to me. Now people again turn to me and ask how the consequences of a policy of which I had constantly warned can be avoided."
Friedrich August von Hayek

"Only informed optimists reject that market is forever doomed to rich valuations and dismal future returns. Rain is good." **John P. Hussman**

We have discussed the growing probability of a US recession in detail in our chart book "[Who's Afraid of Recession?](#)".[18] In the following section we want to explore the evidence again, as an imminent beginning of a recession would force a u-turn in monetary policy and lead to a significant loss of face for central banks.

The bubble in the US real estate market that burst almost nine years ago, caused a severe international crisis. The situation only calmed down again by the end of 2009, at least superficially. Although the financial crisis still reverberates in many ways, there haven't been any large setbacks in economic growth yet, at least in the US, which is experiencing one of the longest economic upswings since World War II. The following chart shows that of the last eleven economic expansions, only three have lasted longer. The current expansion could therefore be seen as especially successful, if not for a number of facets that are marring the picture markedly:

US economic expansions after World War II (duration and extent)



Source: Bawerk.net, Incrementum AG

Firstly, the current upswing is borne by a giant cushion of air in the form of zero interest rates and unconventional measures, such as quantitative easing and Operation Twist, provided by the Fed. These measures have inflated asset prices in particular, which benefits mainly the financial industry and the rich, and moreover represents evidence that capital is once again being misallocated.

Secondly, the population at large, which has benefited only marginally from the renewed surge in stock prices, appears to be dissatisfied with the economic situation. Strong evidence for this is provided by the massive support for populist parties in Europe, as well as by the Presidential election campaign in the US. Donald Trump has surprisingly won the Republican primaries in the US and is now the designated Republican candidate. His platform plays directly into the disgruntled and marginalised white middle class with few prospects for the future. Likewise, we see the same political movement going on in Europe where populist parties are gaining momentum. **Our view of a new political reality building across the Western World was recently substantiated by the Brexit vote.**

[18] "Who's Afraid of Recession?", February 19, 2016

Against this backdrop the economic situation appears anything but rosy: The current expansion is old, weak, artificial and not satisfactory in the eyes of the broad population. In the tradition of the Austrian School, we actually want to be cautious about extrapolating past patterns into the future; nevertheless, we don't believe it likely that the current cycle will break significantly from the frequency with which expansions and recessions have occurred in the past several decades.

c. Hostage to the Wealth Effect

"We entertained the fantasy that high asset prices made for prosperity, rather than the other way around."

Jim Grant

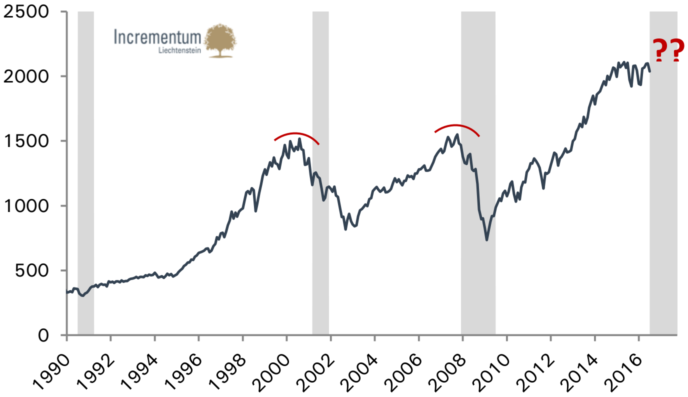
"The management of money creation by central banks is largely illusory. It is about as effective as lowering blood alcohol levels by downsizing the beer mugs at the Oktoberfest in Munich by a thimble."
Christoph Pfluger

Since the 1990s, *inflation targeting*[19], i.e., the pursuit of inflation objectives, has become a fundamental monetary policy strategy of central banks. In recent decades price inflation pressures were however structurally low due to globalization, especially as a result of the integration of China into the global economy, as well as rapid technological progress. In order to achieve these inflation targets, monetary policy has become more expansive, i.e., credit expansion by commercial banks has been boosted. Cheap credit was however often not used for productive purposes, but instead flowed into the financial and real estate sectors, which became overheated as a result. **The bursting of the "new economy" bubble and the sub-prime crisis were in our opinion directly attributable to central bank policy.**

Credit expansion feels like a dream, but turns into a nightmare later…

The side effects of an economic boom triggered by excessive money creation are most of the time quite agreeable. Inflation of the money supply however harbors the systemically relevant danger of a subsequent contraction of the money supply. When monetary deflation gets going it always triggers a chain reaction with highly adverse domino effects: downgrades, which lead to rising financing costs, and ultimately defaults, as well as falling asset prices, which are the flip side of the boom. **As the following chart indicates, falling asset prices can already be seen as the gateway through which the last two recessions have entered.**

S&P 500 Index and US recessions



Source: Yahoo Finance, Federal Reserve St. Louis, Incrementum AG

[19] Hayek repeatedly pointed out that the targeting of a macroeconomic variable is not a suitable means for achieving higher macroeconomic stability. On the contrary, it could more likely have the opposite effect.

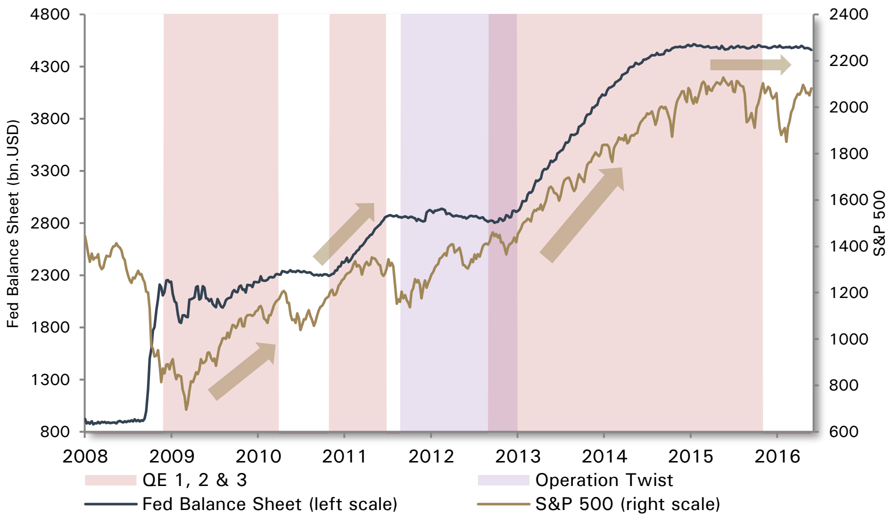
In order to prevent a credit collapse, which would be fatal for the monetary system, central banks have tried to cushion the global financial crisis by an even more expansive monetary policy. The Fed lowered the federal funds rate to zero at the end of 2008 and started the first QE program. The so-called wealth effect played a crucial role: Consumers were supposed to feel better on account of rising share prices, and be tempted to increase their spending.

Boom nourishes boom

However, since this is essentially nothing but a continuation of the policy that has led to the crisis in the first place, its prospects for enduring success are negligible. Problems were merely postponed: What turned out to be unprofitable hasn't been liquidated, but has been kept on artificial life support and even expanded. **Unconventional monetary policy has only resulted in a further inflation of asset prices and has raised the level from which they will inevitably drop.**

The following chart demonstrates that the trend of the S&P 500 Index depends strongly on continual inflows of cheap money: After the end of QE1 and QE2 the S&P 500 declined and only regained its upward momentum once the Fed indicated that another round of QE was in the offing. The exit from QE3 was then implemented in a less abrupt manner via "tapering".

Fed balance sheet growth correlates with asset price inflation



Source: Realinvestmentadvice.com, Federal Reserve St. Louis, Incrementum AG

Will the Fed be able to successfully return to monetary normalcy without affecting asset prices? Is the economic recovery self-supporting and is it able to withstand tighter monetary policy?

Tapering at the end of QE3 was de facto already the first step of a tightening policy. The small rate hike in December 2015 was the second step. As a result stock markets have become volatile: Since the publication of our last report, there have already been two significant stock market corrections.

Thus, we presently find ourselves in the following situation:

- Asset prices are experiencing an artificial boom, which is however only leading to a minimal expansion in productive activities, while conserving obsolete capacity and structures;

- Strong declines in asset prices tend to spill over into the real economy and lead to recessions such as in 2000 and 2008;
- Asset prices are increasingly fragile, and depend on ever more expansive monetary policy.

Conclusion:
Similar to the legendary Damocles, whose life was threatened by a sword held up by a horse's hair, a decline in asset prices nowadays represents a latent threat to the fragile economic recovery.

d. Excursus Trumpmania: It's the Economy, Stupid!

"Reduce our $18 trillion in debt, because, believe me, we're in a bubble. We have artificially low interest rates. We have a stock market that, frankly, has been good to me, but I still hate to see what's happening. We have a stock market that is so bloated."

Donald Trump

News on the 2016 US election campaign is broadcast on every channel and reaches even the most secluded hermit. What happened in the primaries has probably surprised almost all political pundits. **Initially nearly all observers agreed: The two political dynasties of the Bushes and the Clintons (who are bound in friendship) would sort the presidency out between themselves.** Jeb Bush and Hillary Clinton had everything that is needed to seize the US presidency: plenty of political experience, outstanding contacts to well-heeled donors who are needed to finance expensive election campaigns, and excellent connections to the respective party-affiliated media. It was generally expected that both candidates would sweep the primaries, with Hillary Clinton considered the favourite to win the presidency.

Source: Wikicommons.org

Bush, who had to face a substantial number of competitors in the Republican primaries, was held to be the front-runner within his party. Alas, it didn't turn out that way at all: Donald Trump, who time and again was deemed to have no chance, surprised nearly everybody. During the primaries there was a persistent outcry in the media over his politically incorrect statements and opinions, but in spite of this – or perhaps rather because of it? – he managed to snatch the nomination of the Republican party. Even though nearly the entire party establishment fought against him with all imaginable means, Trump managed to gain the nomination with a stunningly large majority.

On the Democratic side it was widely expected that Hillary Clinton would sweep the primaries. The projections of the pundits turned out to be wrong in this case as well: Self-declared socialist Bernie Sanders put a lot of pressure on Clinton, and at times it seemed as though a neck-and-neck race was developing.

It can therefore be stated that candidates who are part of the political establishment had an extraordinarily difficult time in this election campaign. On the Republican side these candidates ultimately turned out to have no chance, and on the Democratic side they met with enormous resistance as well.

What do the rebelling presidential candidates stand for? Both Trump and Sanders are attractive to voters who are unhappy with developments in the US economy. Regarding the root cause of current problems facing the United States both camps seem to blame; immigrants, bankers, greed, globalization, politicians, etc. **Bottom line is: the primaries were mainly a vote against the policies of recent years, if not decades, and the establishment that enacted said policies.**

In contrast to this, the politicians who are currently in charge are emphasizing the narrative that predominates in the financial markets: We have overcome the crisis, unemployment is close to a record low, and the economy is on the way to recovery. For example, in his last State of the Union address, president Obama never tired of stressing the excellent performance of the US economy:

"Let me start with the economy, and a basic fact: The United States of America, right now, has the strongest, most durable economy in the world. (Applause.) We're in the middle of the longest streak of private sector job creation in history. (Applause.)"[20]

However, how can this economic worldview, which constantly heralds the economic expansion and a low rate of unemployment, be reconciled with the obvious dissatisfaction of the population at large?

As already mentioned, the official unemployment statistics are clearly prettifying the situation. While there are now indeed more jobs than previously, the quality of these jobs has declined considerably. Well-paid jobs – particularly manufacturing jobs – have been lost for years, while service sector jobs paying below average wages have been created instead. **Case in point, there are today hardly more labor hours employed than there were in 2000 (+2%), while the population has grown by more than 42 million (+15%).**

If Donald Trump, who is detested by the establishment and also a bit unpredictable, should indeed become President, the question is: **What would Trump's economic policies actually consist of?** He has never made any straightforward statements about this. He did however create a bit of a commotion when he remarked that he would renegotiate the government's debt with

Trump on Haircuts* and Inflation

Trump: *"I am the king of debt. I do love debt. I love debt. I love playing with it,"*

Andrew Ross Sorkin (CNBC): *"Do you believe that we, in terms of the United States, need to pay a hundred cents on the dollar, or do you think that there's actually ways that we can renegotiate that debt?"*

Trump: *"Yeah, I think — look, I have borrowed, knowing that you can pay back with discounts. And I have done very well," Trump said. "I would borrow, knowing that if the economy crashed, you could make a deal, and if the economy was good, it was good, so, therefore, you can't lose."*

…

"People said I want to go and buy debt and default on debt. I mean, these people are crazy. This is the United States government. ***First of all, you never have to default because you print the money*** *— I hate to tell you, OK? So there's never a default."*

Donald Trump

"When her time is up, I would most likely replace her because of the fact that I think it would be appropriate. She is a low-interest-rate person. She has always been a low interest rate person. And I must be honest. I am a low interest rate person. ***If we raise interest rates and if the dollar starts getting too strong, we're going to have some very major problems****."*

Donald Trump

„Politicians are all talk, no action. My fellow Republicans want me to support them. And they don't talk jobs and they don't talk China. ***China is killing us; they're devaluing their currency*** *to a level that makes it impossible for our companies to compete."*

Donald Trump

***Debt haircuts, not his haircut…**

[20] "State of the Union", Barack Obama, January 13, 2016

creditors. Many pundits took this to mean a "restructuring" of US Treasury bond debt, which created quite an uproar. Subsequently the statement was relatively quickly qualified, as confidence in the debt money system is irrevocably intertwined with confidence in the creditworthiness of the government, especially the US government as the custodian of the world's reserve currency. If "risk free" assets were to be questioned, it would be tantamount to the bankruptcy of the entire system. Ultimately Trump decided to fall back on arguing in favor of "inflating the debt away".

"First of all, you never have to default because you print the money."
Donald Trump

Conclusion:
If the narrative saying that the economy is on the way to recovery was an accurate description of the current state of affairs, the majority of the US population would be inclined to re-elect politicians who stand for the associated policies. In our opinion, the primaries, and particularly the "Trump phenomenon",is Main Street's reply to the narrative of a recovering economy. 24 years after Bill Clinton replaced then incumbent president George H.W. Bush on account of the economic situation prevailing at the time, the following well-known slogan quite likely still applies: **"It's the economy, stupid!"**

e. When the Credit Cycle Turns

"The cycle of manias and panics results from procyclical changes in the supply of credit…Money always seems free in manias."
Charles Kindleberger

"If anyone still wonders why policymakers keep acting as indecisive adolescents, the answer lies in the basic financial math - when rates go up, asset prices go down and debt service costs rise. It is as simple as that."
Simon Mikhailovich

The policy of cheap money has been a tailwind for the credit cycle for many years. However, this has failed to impart momentum to the economy, which has instead lost its inherent dynamism and has adjusted itself to constantly receiving new bouts of external stimulus. QE is the functional equivalent of pushing a professional bicycle racer ahead with a support vehicle: Apart from the fact that it would be against the rules, it would at best help to get him through a temporary phase of weakness – but as a permanent feature, it would end up reducing his fitness and make him dependent on the artificial support.

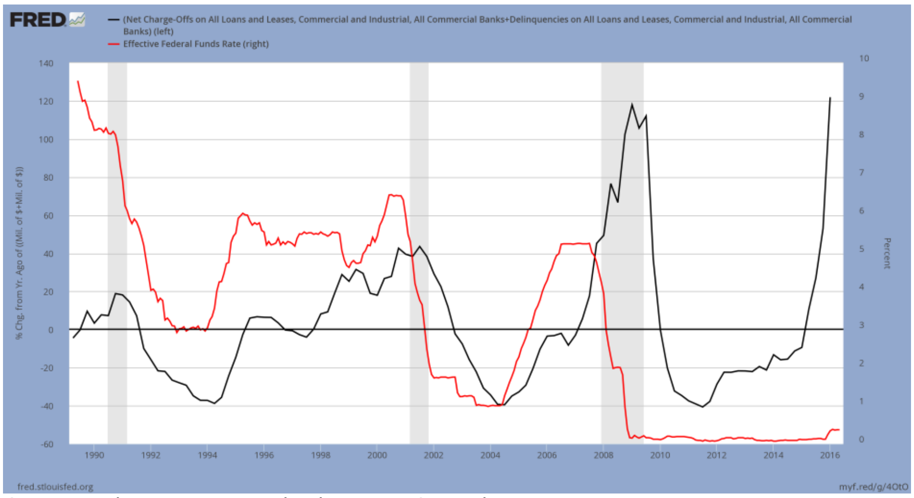
"Intelligence is the ability to adapt to change."
Stephen Hawkins

To return to the economy: **Many investors have become complacent about risk in the face of steadily rising asset prices and low interest rates**. Large corporations have significantly increased their return on equity, not least because they have reduced their equity ratios by means of share buybacks. There is a palpable danger that a bear market could trigger a chain reaction that leads to a deep recession via an *inverse wealth effect.*

"*Every great crisis reveals the excessive speculations of many (banking) houses which no one before suspected."*
Walter Bagehot

The stagnation in the stock market rally since last summer has already caught many investors off guard. Moreover, it appears as though US financial institutions are already seeing dark economic clouds on the horizon. This is evident in the rapid rise of the number of loan delinquencies and charge-offs. A similar pattern could be observed on the eve of previous recessions as well. However, while on previous occasions rising interest rates had a significant effect on growing defaults of borrowers, the Fed's rate hike of last December can hardly be regarded as a decisive factor in this respect. **The simple fact is that the banking sector, with all its system-relevant actors, is very sensitive to problems emanating from credit markets**.

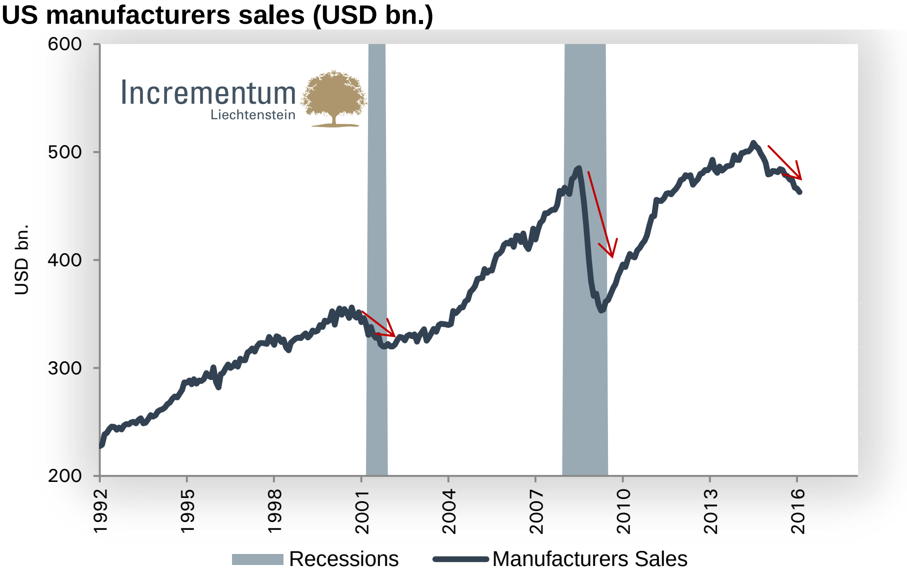
Loan delinquencies and charge-offs (y/y rate of change) vs. the Federal Funds rate



Source: Acting-man.com, Federal Reserve St. Louis

While investors who were long stocks and bonds in recent years are probably happy in view of the surge in asset prices, actors in the real economy are beset by deep concerns. International trade is decreasing and investment demand is low. As the following chart illustrates, manufacturing sales have been declining for more than a year.

US manufacturers sales (USD bn.)



Source: Federal Reserve St. Louis, Incrementum AG

"The last time the yield curve flattened this much – in early 2008 – gold was in the early phases of a major bull rally."
James Steel

Last but not least, the current flattening of the US yield curve isn't a particularly good omen either. The spread between 10 year and 2 year US Treasury note yields has been tightening for several years and is currently at the lowest level since early 2008. In the "good old times" an inverted yield curve – i.e., a negative yield spread – was considered an extremely reliable recession indicator.[21] An interesting aside to this: **The last time the yield curve was similarly flat, the gold price was in the early stages of a formidable rally**.

[21] As a result of the zero interest rate policy, the critical threshold should be remarkably higher.

Yield curve (spread between 10 yr. and 2 yr. Treasury note yield)

Source: Federal Reserve St. Louis, Incrementum AG

Although the supposed normalization of monetary policy and the associated rate hike cycle have been set into motion in the US, the bond market doesn't believe in the turnaround in interest rates. The flattening of the yield curve represents an enormous problem for banks as well, as less and less profit can be generated by means of maturity transformation. **A flattening yield curve is also a symptom of a slowing credit expansion. However, this is the exact opposite of what the credit-addicted monetary system craves: namely more rather than less credit!**

f. The Trigger of the Next Recession

"It is well known that every boom must one day come to an end. The businessman's situation, however, depends on knowing exactly when and where the break will first appear. No economic barometer can answer these questions. An economic barometer only furnishes data from which conclusions may be drawn. Since it is still possible for the central bank of issue to delay the start of the catastrophe with its discount policy, the situation depends chiefly on making judgments as to the conduct of these authorities. Obviously, all available data fail at this point.

But once public opinion is completely dominated by the view that the crisis is imminent and businessmen act on this basis, then it is already too late to derive business profit from this knowledge. Or even merely to avoid losses. For then the panic breaks out. The crisis has come."

Ludwig von Mises[22]

Will there soon be a recession in the US? The track record of economists with respect to timely forecasts of recessions is not much to write home about. This is partly due to the fact that most economists don't take recession probabilities sufficiently into account in their stochastic equilibrium models, and that they are generally subject to an "optimism bias".

[22] See: von Mises, Ludwig: *On the Manipulation of Money and Credit: Three Treatises on Trade-Cycle Theory*, Liberty Fund Inc., Indianapolis, 2011 (1923-1931)

However, even if an economist expects a recession, forecasting its timing is practically impossible in view of the complexity of all the causal interrelations. Due to the non-linear inter-dependencies in a dynamic system, small causes can have large effects. In the course of a presentation on the predictability of the weather, meteorologist Edward N. Lorenz once asked "*Does the Flap of a Butterfly's Wings in Brazil Set Off a Tornado in Texas?*"[23] **We are asking: could a bursting bubble in China, a Greek exit from the euro zone, Brexit, a failing Italian bank or maybe just a major loss at Deutsche Bank trigger a global economic crisis? Maybe it won't take more than a verbal lapse by Janet Yellen?**

How does the gold price perform in recessions?

Short answer: very well!

On the one hand investors are looking for safe havens in times of crisis, and gold is the classical safe haven asset; on the other hand many investors will anticipate monetary and fiscal stimulus and buy gold for inflation protection.

Gold Performance During U.S. Recessions

Decade	Gold Start (USD/oz)	Gold End (USD/oz)	Change (%)
11/1973 - 03/1975	100	178	78.0%
01/1980 – 07/1980	512	614	20.0%
07/1981 – 11/1982	422	436	3.3%
07/1990 – 03/1991	352	356	1.0%
03/2001 – 11/2001	266	275	3.5%
12/2007 – 06/2009	783	930	18.8%
Mean			20.8%

Source: Deutsche Bank, Incrementum AG

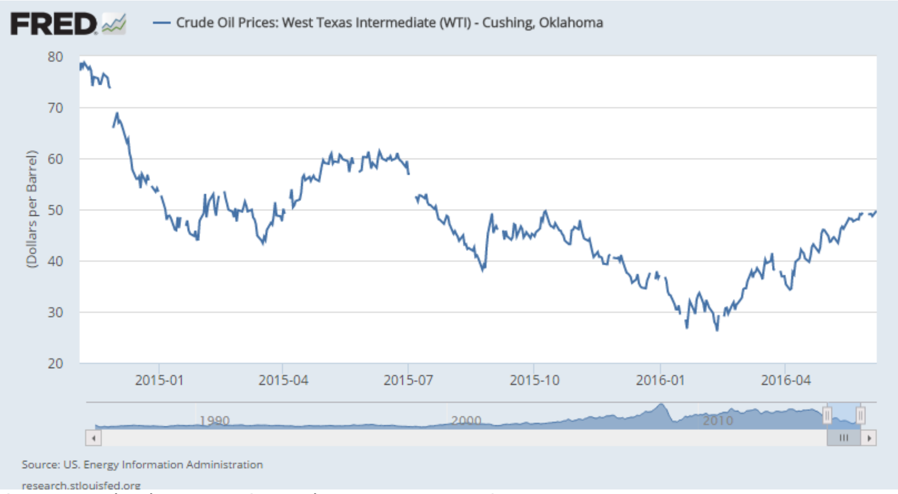
Due to the never before seen density of economic interrelations, the relevance of such causal connections for the global economy is greater than ever. We believe that precise forecasts of recessions, especially predictions of when they will begin and how long they will last are hocus-pocus. Instead we have pointed to developments above, which document the system's fragility and suggest a growing likelihood of a recession striking in the near future. Our focus has been on the US economy, as it is still the largest economy in the world. Moreover, the US dollar is the global reserve currency and the Fed's decisions therefore strongly influence the global economy as well as global monetary policy. However, above all, the US economy is regarded as the model for pro-active economic interventionism and its performance is therefore very important for **maintaining the current economic worldview**.

"We keep thinking that lower energy prices are somehow good for the economy. That can't be, because energy prices or commodity prices in general don't drive economic growth. Economic growth drives commodity prices."
Stephen Schork

Inter-dependencies naturally imply effects flowing in two directions: Numerous events could potentially trigger a recession in the US – including recessions in other parts of the world. There are the eternally shaky prospects of Japan; there are Italy, Canada and Taiwan, all of which are displaying economic weakness; there are large emerging economies such as Brazil and Russia, which are stuck in recession, respectively in stagflation. And there is China, which tries to avert the bursting of a real estate and stock market bubble with all its might, and with respect to which it cannot even be ruled out that in view of its untrustworthy economic data a recession is in reality already underway. **In short, there are more than enough trouble spots in the world which could prove contagious for the US economy.**

Another trigger could be price inflation, which central banks have tried to revive to no avail for quite some time. Following a sharp decline in commodity prices in recent years, they have recently begun to turn up, which is reflected in recent price inflation data as well. However, that is not all: While the oil price traded in the vicinity of USD 60 between April and June of last year, it was at a lower level over the same time period this year. The oil price started to fall in July of last year though, declining below USD 40 in August, and ultimately closing in on USD 30 as the year progressed.

[23] See: American Association for the Advancement of Science, 139th Meeting

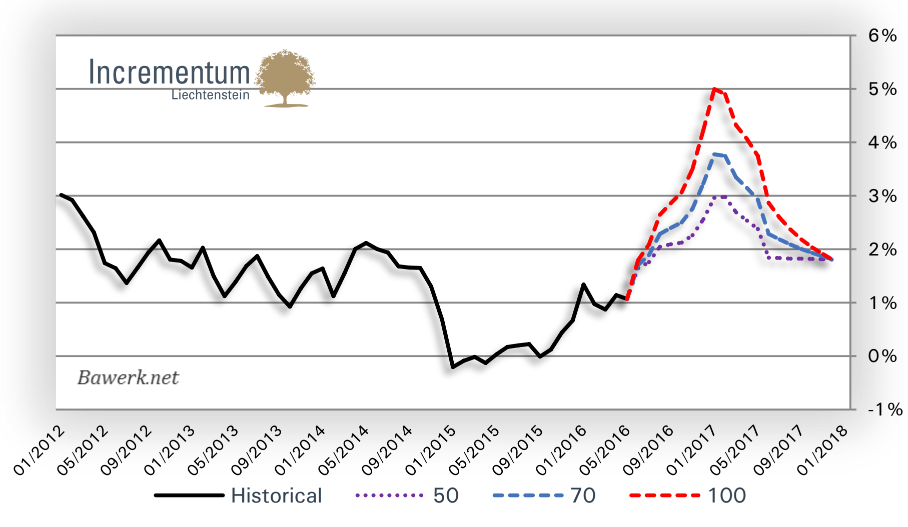


Source: Federal Reserve St. Louis, Incrementum AG

"I think there is more of a risk of a depression than a recession."
Ray Dalio

Ceteris paribus the oil price will begin to affect inflation rates from July onward due to base effects.[24] Should the oil price remain at the USD 45 level, it would be 17% above last year's level by year-end, which would boost the inflation rate considerably. This is also illustrated by the chart below. While bond yields are still declining with abandon, the markets could be faced with significant inflation surprises from July onward. **Rising inflation rates and falling real interest rates are in our opinion the most important arguments in favor of a rising gold price**.

Annual Change in Headline CPI for Various Oil Price Scenarios[25]



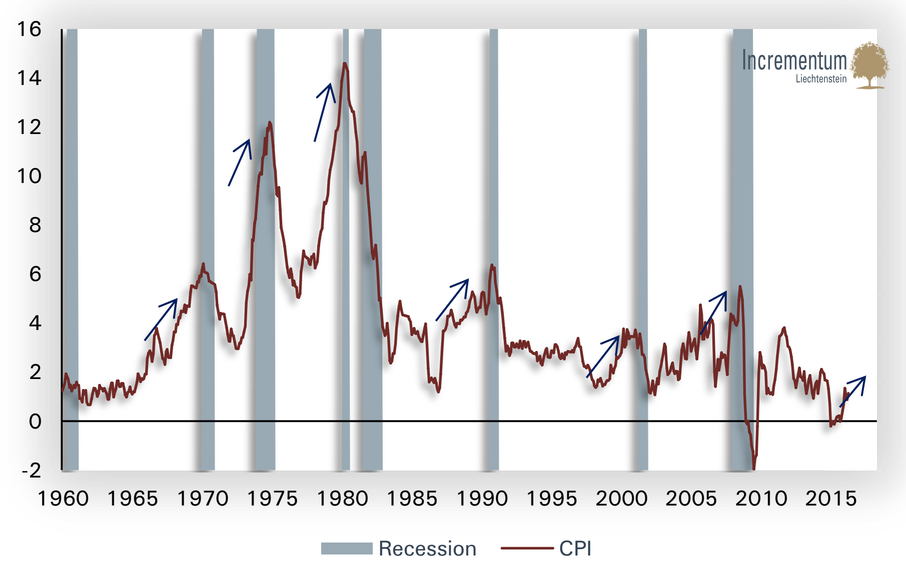
Source: Bureau auf Labor Statistics (BLS), Federal Reserve St. Louis, Bawerk.net, Incrementum AG

[24] Investopedia.com on the base effect: "Inflation is calculated from a base year in which a price index is assigned the number 100. For example, if the price index in 2010 was 100 and the price index in 2011 rose to 110, the inflation rate would be 10%. If the price index rose to 115 in 2012, what would be the best way to assess inflation? On the one hand, prices have only risen 5% over the previous year, but they've risen 15% since 2010. The high inflation rate in 2011 makes the inflation rate in 2012 look relatively small and doesn't really provide an accurate picture of the level of price increases consumers are experiencing. This distortion is the base effect."

[25] Assuming the oil price reaches the stated level by December 2016, then grows by 0.5% per month. Hat tip to our friends at www.Bawerk.net for this wonderful graph!

This has direct effects on the probability of recession as well, as the next chart shows. The tailwind of higher disposable incomes due to lower gas prices could quickly reverse.

Inflation and recession



Source: Federal Reserve St. Louis, Bawerk.net, Incrementum AG

Lastly, Fed policy also plays a decisive role with respect to when the inevitable recession begins. Due to the weakness of the US economic expansion we believe that a sustained rate hike cycle scenario is highly unlikely to eventuate. Its implementation would be akin to shooting oneself in the foot. **As soon as recession dangers come to the foreground, we expect to see another wave of easing measures instead.**

The following five instruments would be available for this purpose:

- "Forward guidance": i.e., communication policy, assuring the markets that rate hikes are no longer on the table for the foreseeable future.
- Rate cuts, possibly even the imposition of negative rates
- Another quantitative easing program (possibly an expanded version including the purchase of corporate bonds and/or stocks)
- Helicopter money
- And theoretically: open market operations involving gold purchases (a deliberate devaluation of the dollar vs. gold).

"Our western societies are the exact opposite of Uncle Scrooge. He is thrifty and miserly, he keeps a huge fortune in a money bin. By contrast, we all believe ourselves to be rich, but we aren't. We are all over-indebted."
Tomáš Sedlácek

The measure that would be most easy to implement would be a change in the Fed's communication policy. It could for instance refrain from further rate hikes for the time being, and communicate this fact to the markets. However, we assume that the Fed wants to avoid, at all cost, reversing its monetary policy stance in the middle of the presidential election campaign. Furthermore, the debate over economic stimulus has recently increasingly shifted toward fiscal policy. The currently prevailing narrative of a putative rate hike cycle will be maintained as long as possible. What is certain is this: **Once the feared recession arrives, the adoption of further monetary and fiscal policy measures is as sure as night follows day.**

Quelle: Hedgeye

g. Excursus: GDP vs. Gross Output

In our opinion the conventional calculation of GDP has an important methodological drawback: In terms of capital spending, all stages of production adding value to intermediate goods as described by the Hayekian triangle are left out, as GDP only includes final goods.

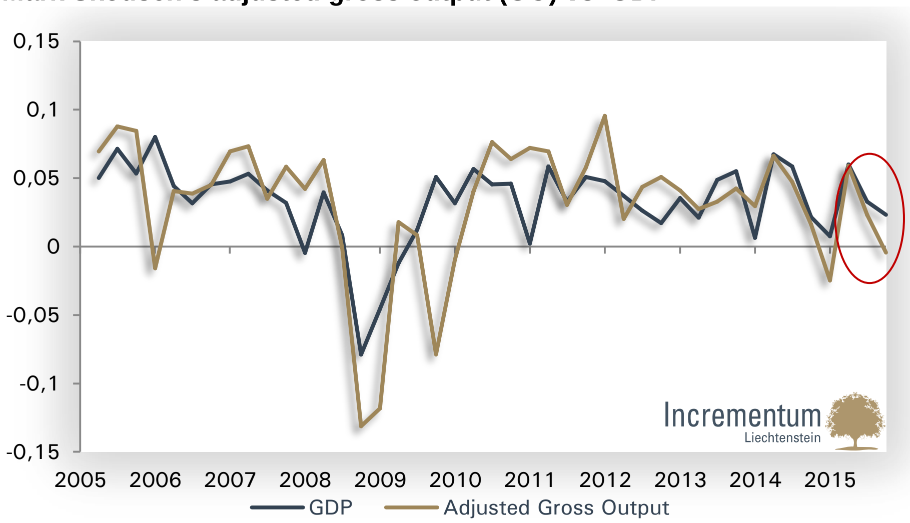
"Higher consumption is the effect, not the cause, of prosperity."
Mark Skousen

In April 2014 the Bureau of Economic Analysis (BEA) announced that it would henceforth publish gross output (GO) statistics that include business-to-business spending on a regular basis. In Q4 2015, GO amounted to an impressive USD 20.3 trillion. This statistic is far more in line with the view of Austrian economists, who are looking toward the supply side as the central pillar of the economy. **Economist and investment analyst Dr. Mark Skousen has developed the BEA's GO statistic further, by including transactions within the wholesale and retail trade.**

"It is the aim of good government to stimulate production, of bad government to encourage consumption."
Jean-Baptiste Say

Although gross domestic product remains decisive in the determination of recessions, it is well worth taking a look at the growth rate of gross output, which in our opinion paints a more realistic picture of the state of the economy. **The following chart illustrates that adjusted GO indicates that the economy is currently already weaker than suggested by GDP data. Recently the indicator's growth rate even dipped into negative territory, which buttresses our recession call.**

Mark Skousen's adjusted gross output (GO) vs. GDP



Source: Mark Skousen, Incrementum AG

h. From Reflation to Stagflation

"One may say that, apart from wars and revolutions, there is nothing in our modern civilizations which compares in importance to inflation."
Elias Canetti

A new recession is inevitable. As already mentioned above, precise predictions regarding the when or how are not possible. At this juncture we nevertheless want to warn about an economic scenario that we believe to be a realistic possibility, namely ***stagflation***.

The term "stagflation" is derived from the terms stagnation and inflation. It describes an economic situation in which economic stagnation (i.e., stagnating or even contracting economic output) occurs in combination with price inflation. According to the mainstream – i.e., Keynesian – doctrine, stagflation is practically an impossibility, as it is inter alia contradicting the Phillips curve. However, this is no reason for us to dismiss this scenario – quite the contrary.

Today's framework conditions are of course different from those of the 1970s, when the Western world last faced a pronounced period of stagflation.[26] **However, from our perspective it is time to once again warn of considerable currency debasement and stagflationary tendencies arising in its wake.** Last year we described our outlook as follows:

Stagflation of the 1970s

The big 1970s stagflation is definitely suitable as a lesson for today. At the time Western developed nations, particularly the US, suffered from high inflation rates, while unemployment almost doubled concurrently. According to mainstream economists, the trigger for this were the two oil price shocks of 1973/74 and 1979/80, and thus exclusively exogenous factors.

However, this overlooks that the global surge in price inflation was actually triggered by the devaluation of the senior currency, the US dollar, against gold and commodities. In the wake of the announcement that the Bretton Woods agreement was coming to an end, OPEC released a communique in September of 1971 regarding a new pricing policy for oil:

"Our member nations will take all necessary steps, and/ or negotiate with oil companies, in order to find ways and means to counter negative effects on the real income of member states, which result from the international monetary developments of 15. August 1971."

In the years preceding these events, Austrian economists had warned of the coming debasement of the US dollar and the inflationary tendencies that would result. Among them was inter alia a then young Harry Browne, who predicted the developments that were about to take place in the 1970s with impressive precision both in various media appearances and in his books.

[26] See: Browne, Harry: "The coming Devaluation", September 3, 1970

"We are strongly convinced that we are now close to a fork in the road. Over the coming three years, a paradigm change is likely to become evident in the markets, quite possibly including rising inflationary trends. *We believe the following scenarios to have the highest probability:*

Scenario I*: The current economic cycle nears its end and the fairy tale of a self-sustaining recovery is increasingly questioned by market participants.* ***This leads to a significant devaluation of the US dollar relative to commodities, since the Fed – as it has stressed time and again – will once again employ quantitative easing or similar interventions if occasion demands it.*** *In this case gold would benefit significantly from wide-ranging repricing in financial markets. A stagflation-type environment would become a realistic alternative in this scenario, something that is currently on almost no-one's radar screen."*[27]

A year later it seems to us as though this scenario has moved a decisive step closer. Economic growth rates are weakening,[28] and the trend of price inflation has turned up. We believe it is easily possible that the economy will slide directly into a pronounced stagflation phase. After many years of credit expansion, boosted by ever lower interest rates and finally the introduction of QE programs, we are now, so to speak, approaching the end of the monetary line.

If reflation through higher credit expansion becomes more difficult, central bankers can do nothing but improvise (e.g. by testing the "academic thought experiment" of helicopter money in practice), which could lead to a loss of confidence in the paper currencies. This could – similarly as happened in the 1970s – manifest itself in a devaluation of paper currencies towards commodities.

How investors can protect themselves from such a scenario will be discussed in the next chapter.

[27] *In Gold we Trust Report 2015*, p. 119
[28] The World Bank cut its forecast for the world economy from 2.9% to 2.4%. The IMF also recently revised its forecasts downwards. **And of course, as a result of the Brexit we should expect numerous further downward revisions.**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4. INFLATION AND INVESTMENT

"No subject is so much discussed today - or so little understood - as inflation."

Henry Hazlitt

"Having a little inflation is like being a little pregnant."
Leon Henderson

The trend in price inflation has decisive effects on the performance of different asset classes and is one of the most important variables determining success or failure of an investment strategy. It nevertheless appears as though this parameter has been neglected in recent years. The reason for this is probably that the secular disinflationary trend – the "Great Moderation"- which has prevailed since the early 1980s is perceived as the normal state of affairs.

Only very few active investors still remember the devastating inflation, respectively stagflation, that developed nations experienced in the 1970s. Neither the inflationary period of the 1970s, nor the disinflationary era that followed were predicted, and it appears as though the tendency of inflation continues to play a subordinate role in the eyes of most market strategists, in spite of the fact that it was responsible for the worst performance of stocks and bonds in 80 years (1966 – 1981), followed by the best two decades these asset classes ever experienced.[29]

We have already discussed the inflation-sensitivity of different asset classes in 2014. At the time we considered their behavior from the perspective of US investors. [30] **On the other side of the Atlantic the impact of inflation trends on different asset classes can be shown as well.** An interesting study has been presented in a research paper by Swiss investment consultancy PPC Metrics. [31] The authors of the study analyze the consequences of accelerating and decelerating inflation rates on the annual returns of different asset classes. The result: In Switzerland most asset classes receive a tailwind from decelerating inflation rates (disinflation) as well. **However, when inflation rates accelerate, it is primarily gold and commodities which exhibit a positive performance.**

ØAnnual yield when inflation…	…rises	…falls	Total	Observations (years)
Liquidity	3.72%	3.05%	3.32%	51
Bonds CHF	3.00%	5.57%	4.51%	51
Bonds FW	2.66%	6.59%	4.97%	51
Bonds FW hedged	4.09%	4.95%	4.60%	51
Stocks CH	5.62%	12.22%	9.50%	51
Stocks global	5.71%	10.57%	8.57%	51
Real estate CH	5.69%	7.77%	6.92%	51
Commodities	17.30%	3.92%	8.94%	40
Gold	11.88%	7.13%	8.00%	40
Hedge Funds	2.95%	7.35%	5.95%	22

Source: PPC Metrics

[29] See: "Inflation and Deflation", Strategic Economic Decisions
[30] Vgl. „In Gold we Trust Report 2014"; S. 28
[31] Vgl. "PPC Metrics Research Paper Nr.1/2013: Anlagen in einem inflationären und deflationären Umfeld

In the following section, we will analyze various aspects concerning inflation and investment strategy.

a. Misunderstood inflation

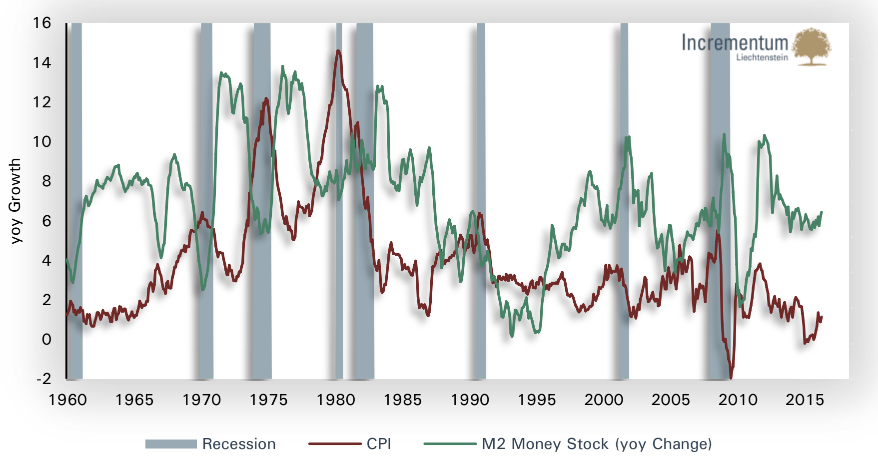
"Inflation is a twisted magnifying lens through which everything is confused, distorted, and out of focus, so that few men are any longer able to see realities in their true proportions."

Henry Hazlitt

When we discuss inflation in our reports, we never tire of stressing the difference between monetary inflation and price inflation. Many readers may regard this as a pedantic exercise in hair-splitting, but we believe that this analysis is essential for a comprehensive understanding of the issue. **Monetary inflation is the cause, price inflation is its consequence.**

It is easy to understand that the "general level of prices" cannot permanently increase in a monetary system with a fixed money supply. While the price of a good that becomes scarcer would rise in such a monetary system, this would be balanced by the decline in the price of another good with a more plentiful supply. Prices would therefore only change relative to each other. An increase in the prices of all goods only becomes possible when either the overall level of production falls with a constant money supply, or if the money supply is not constant, but expands – or more correctly stated, when it expands at a faster pace than the supply of goods. Generally the money supply therefore tends to rise faster than the "price level".

Consumer price index vs. monetary aggregate M2, y/y rate of change



Source: Federal Reserve St. Louis, Incrementum AG

However, the situation is by no means trivial; it is not possible to derive the rate of price inflation directly from a comparison of the rate of money supply inflation and the growth rate of the supply of goods (and services). Several difficulties will arise.

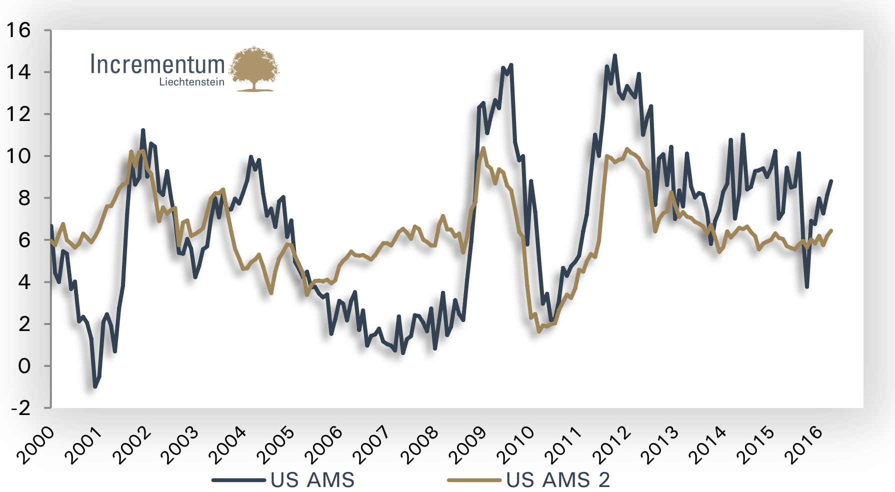
A practical problem is already posed by the definition of the first variable, the money supply. In today's monetary system the bulk of the money supply is created by commercial banks in the form of deposit money.

The creation of money is therefore partly in the hands of public and partly in the hands of private entities.[32] A number of different calculation methods exist in order to determine the total money supply.[33] An example are the different monetary aggregates calculated by central banks (M1, M2, etc.). In addition, there is a range of monetary substitutes in the realm of finance and so-called shadow banking complicating the matter even more.

"Men of business in England do not like the currency question. They are perplexed to define accurately what money is: how to count they know, but what to count they do not know."
Walter Bagehot

Interestingly, central banks are also not of one mind as to how these money supply aggregates should be correctly defined. Their calculation methods differ significantly. Apart from the monetary aggregates published by official bodies, there are also private sector analysts devoting themselves to the calculation of money supply growth. **A leading analyst in this area is our advisory board member Dr. Frank Shostak, who is strongly focused on the calculation, comparison and effects of monetary inflation in research published by his economic and financial analysis firm "Applied Austrian School Economics" (AASE).**[34]

US Austrian Money Supply (AMS) - % change yoy



Source: Applied Austrian School Economics, Dr. Frank Shostak

Apart from the problem that the money supply cannot be unambiguously quantified in today's fractional reserve banking system, there are several more reasons why money supply inflation isn't directly proportional to price inflation. Above all we want to emphasize the following reasons:

1. Methodological problems associated with the measurement of consumer price inflation (composition of the basket of goods, decreasing quality of goods, "shrinkflation"[35], hedonics and imputed values to mention a few)
2. Changes in preferences toward either hoarding money (i.e., an increase in the demand to hold money), or toward spending, which affects demand and has an effect on prices as well[36]

[32] In his study "Can banks individually create money out of nothing? – The theories and the empirical evidence" Prof. Richard Werner has for the first time provided empirical evidence that banks' lendings are not provided on the basis of existing savings, but that they are created as imaginary deposits for the borrower. Credit is hence created *ex nihilo*.
[33] See: Murphy, Robert P.: "Lost in a Maze of Monetary Aggregates?", Mises.org, February 14, 2011
[34] http://aaseconomics.com/
[35] https://en.wikipedia.org/wiki/Shrinkflation
[36] Monetarists speak in this context about the "velocity of money". This concept is however problematic inter alia due to above-mentioned reasons.

3. The official inflation rate only takes the rate of change in consumer prices into account. Changes in asset prices are not considered (primarily investment assets and capital goods, but also art prices, etc.)
4. Last, but not least, it is important for the reader to note that the *general level of prices* does not exist in real life. It is a mere academic exercise and obviously a very poor guiding light to direct monetary policy.

b. The Holy Grail of Monetary Policy

"Central banks' exclusive focus on consumer prices could even be counter-productive. Such a monetary policy can undermine efficient capital allocation, promote malinvestment, distort the economic structures, hamper growth-stimulating creative destruction, increase risk appetites and lay the foundation for future monetary instability."

Axel Weber

Since the 1990s, *inflation targeting*[37], i.e., the pursuit of price inflation objectives, has become a fundamental monetary policy strategy of central banks. Since price inflation rates only refer to a small and rather arbitrarily selected subset of all prices, which can only be controlled very imprecisely (if at all) and with large time lags by means of monetary policy, the strategy doesn't appear to make much sense. Hayek time and again stressed that the targeting of macroeconomic variables is not a suitable means for achieving greater economic stability, but was more often likely to have the opposite effect.

The European Central Bank is the most important central bank that has focused its monetary policy primarily on achieving an inflation target. As is well known, the ECB's main goal is to generate consumer price inflation at, or just below, 2% per year. In line with the thought experiment presented above, the money supply will have to increase at a commensurately faster pace in order to ensure that the “price level” increases at this rate of change.

It is far less well-known that in addition to its price inflation target the ECB pursues a money supply growth target as well. When the ECB was established, the reference growth rate for the monetary aggregate M3 was set at 4.5% p.a. (at the insistence of the German Bundesbank).[38]

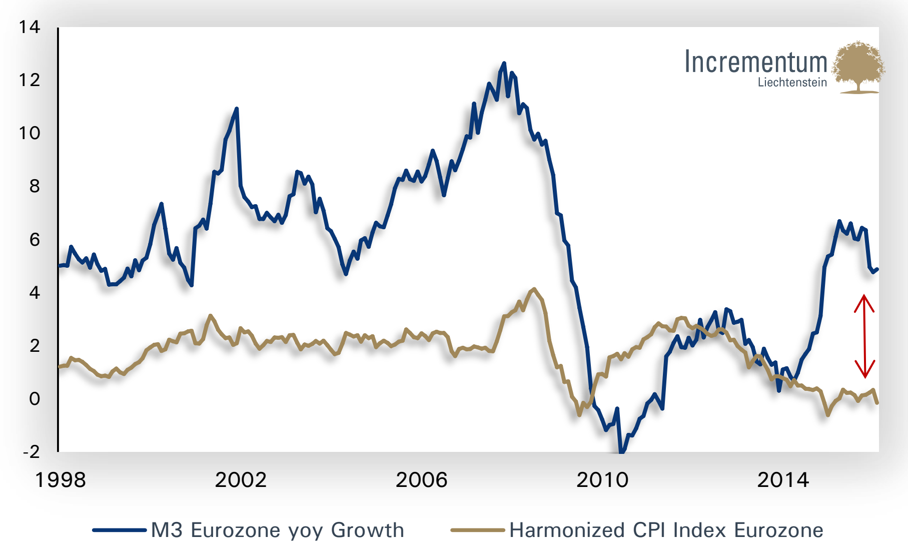
The idea behind this was:

4.5% money supply growth – 2.5% potential GDP growth = 2% price inflation
= price stability according to the ECB's definition

While the ECB was initially able to achieve a rate of consumer price inflation fairly close to its desired target, the volatility of price inflation has increased significantly since 2008. Moreover, prior to 2008, the growth rate of the money supply aggregate M3 stood noticeably above the reference value of 4.5% p.a.

[37] Hayek repeatedly pointed out that targeting a macroeconomic variable is not a suitable means to achieve higher macroeconomic stability. On the contrary, it is more likely to harm the system.
[38] See here for details: http://www.ecb.europa.eu/home/glossary/html/act4r.en.html#263

Euro area: M3 and harmonized index of consumer prices (HICP), y/y



Source: Federal Reserve St. Louis, Incrementum AG

It is obvious from our perspective that the disproportionate growth rate of M3 in the time period before 2008 was the root cause of various bubbles and misallocations of capital. In fact, it seems to us that it represents a textbook example of Austrian business cycle theory (ABCT). Asset price inflation in the euro area until 2008 is well documented, one only needs to remember the legendary booms in property prices in e.g. Spain or Portugal.

"If enough money is printed, there is always inflation. Always."
Peter Praet, ECB chief economist

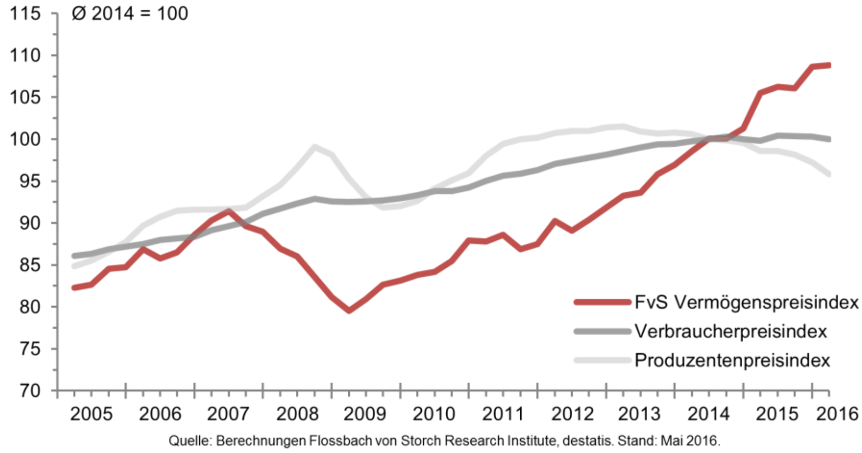
At present the reference value of 4.5% growth for M3 is once again exceeded significantly, led by rapid growth in narrow indexes such as M1 and to a lesser extent M2, while consumer price inflation has missed its 2% target for several years running already – in recent years it has been stuck in a range from 0% to 1%. This suggests that the difference between strong money supply growth and relatively low consumer price inflation has primarily become manifest in the form of asset price inflation. Knowing M1 is growing faster than M3 substantiates our argument. **This time the focus appears to be on real estate in the northern half of the euro zone, as well as bonds. Rental yields are following the general level of interest rates consistently, which have by now reached absurd levels.**

This is confirmed by numerous indexes as well. According to calculations by asset manager Flossbach von Storch (FvS)[39] asset price inflation amounted to 7.8% last year, the highest level since the statistics were first compiled. While the prices of financial assets practically stagnated (+0.7%), asset price inflation was driven to a record high by price increases in tangible assets (+9.5%). The main driver was real estate, which represents the largest part of German household wealth and rose in price at a never before seen pace. The prices of business assets (+24.5%), as well as collectibles and speculation goods (+15.4%) rose sharply as well. Stock prices rallied by 5.8% on average, while bonds lost 2.2% compared to the previous year.

[39] The *FvS Vermögenspreisindex* measures the price development of the assets of German households. The index corresponds to the weighted price development of tangible and financial assets that are owned by German households. Tangible assets include real estate and business property as well as long-term consumer goods, collectibles and speculative assets.

The Cantillon effect is convincingly reflected by the FvS index as well. Thus rich households clearly benefited disproportionately from these price trends, as the value of their assets increased on average by 10.4%. The differential between asset price and consumer price inflation (+0.3%), resp. producer price inflation (-2.4%) reached a new record high as well. It is also interesting that young households are benefiting to a much smaller extent from asset price inflation than older ones. The reason for this is the relatively small share of their total wealth represented by real estate, as well as the relatively large share represented by savings deposits.

FvS asset price index (red line) vs. consumer price index (dark grey line) and producer price index (light grey line)



Source: Flossbach von Storch Research Institute

Why is it that central banks, instead of boosting consumer prices, have triggered an avalanche of asset price increases? One possible explanation for this phenomenon is that in previous economic cycles, reflation was achieved through conventional monetary policy and thus through credit expansion. The latter affects the real economy more quickly and soon leads to rising consumer prices. This time reflation was attempted directly by means of securities purchases, which primarily affected asset prices, but failed to sustainably boost consumer prices.

However, it appears now as though the ratio has turned. The baton could well be in the process of being passed from asset prices to consumer prices. We will discuss the associated consequences in the following chapters.

c. "The dollar is our currency, but it's your problem"

"The problem we see (as do a growing amount of others) is failure in real terms. The mechanical solution above is currency dilution, which is another way of saying "devaluation", which in turn is another way of saying "inflation". We expect the post-Bretton Woods monetary regime to fail eventually in real terms, much as the Bretton Woods regime failed in 1971. Given the scale, breadth and depth of household, government and corporate leverage around the world,

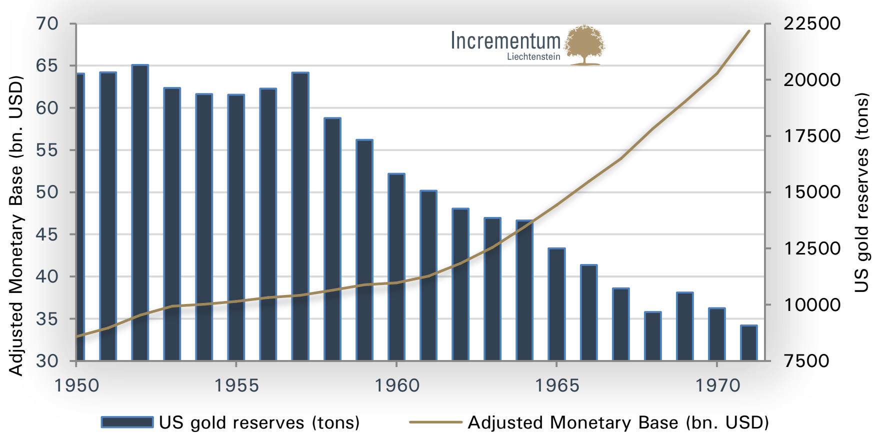
the necessary magnitude of central bank administered inflation would be significant."[40]

Paul Brodsky

The current monetary architecture is an anomaly. In order to understand the current global monetary order and ultimately today's situation with respect to the US dollar, commodities as well as inflation, it is worth taking a look at history. Due to the partial gold cover under the Bretton Woods system in the post war order until 1971, the precious metal remained the anchor of the global currency system and limited the ability of central banks to expand the money supply at will.

However, a partial debt money system like Bretton Woods, inherently requires steady money supply expansion as well. Governments moreover tend to expand their spending as a matter of course. Both processes conflicted with the gold cover clause. Specifically, the US balance of payments deteriorated at the time due to military expenditures in the context of the cold war in general and the Vietnam war specifically as well as rising welfare spending. This was the time of President Johnson's *Guns and Butter* policy. US foreign liabilities exceeded the gold inventory stored with the Fed already in the 1960s - in the long term the Fed was unable to fulfil the US obligation to convert dollars into gold at the rate of USD 35 per troy ounce. Thus the *de iure* backing of the US dollar was undermined, while *de facto* the US dollar became exclusively dependent on the confidence of foreign governments. This confidence started to decline: in the 1960s foreign central banks decided to increasingly convert their dollar reserves into gold and the pressure on the Bretton Woods system increased steadily. **Finally, what *had* to happen, happened, and - citing specious arguments - the US unilaterally abandoned the dollar's gold convertibility.**

US gold reserves and adjusted monetary base from 1950 to 1970

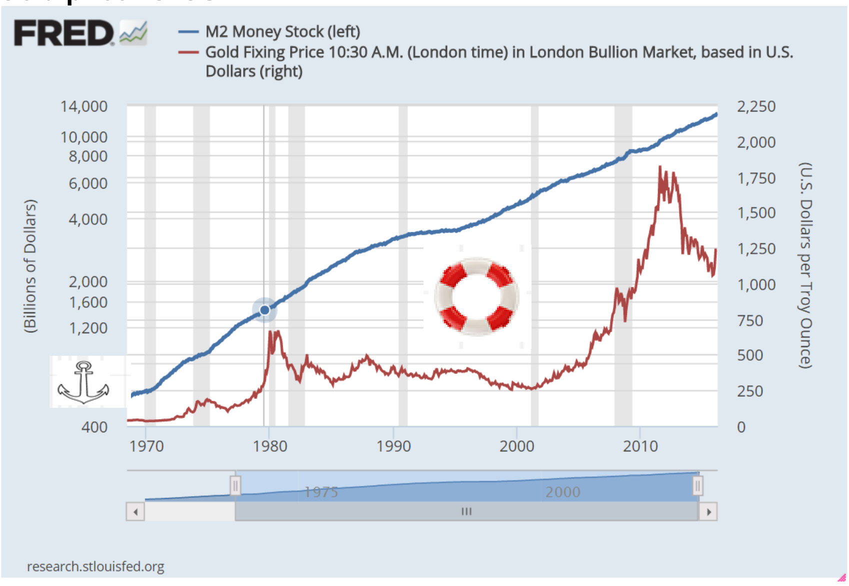


Source: World Gold Council, FRED, Incrementum AG

The end of the gold exchange standard had far-reaching consequences. Gold's characteristics as an investment asset have essentially reversed following the severing of its tie to the dollar. Once the price of gold was no longer tied to the US dollar, it was suddenly transformed from a risk-free asset to an asset fluctuating in terms of the US dollar – and thus supposedly a risky one. **Gold has therefore undergone a metamorphosis - from an anchor to a life preserver.**

[40] See: Brodsky, Paul: "The Fall of All we Know", LinkedIn.com, May 6, 2016

Gold price vs. US M2



Source: Federal Reserve St. Louis, Incrementum AG

Ever since, the gold price has been floating higher over the long term on the back of a continually swelling flood of money. However, this is happening amid the deafening roar of the volatile surf of inflationary tides, which can create short to medium term price risks for gold holders.[41] **Apart from its function as a monetary anchor, during the time of the gold standard gold also provided a stable reference rate for all transactions due to the consistent size of the stock of available gold.** In the framework of the Bretton Woods system gold served indirectly as the denominator and unit of account for international exchange transactions.

As a result of the abolition of the dollar's gold convertibility, global monetary chaos reigned in the 1970s. The agreement between the US and Saudi Arabia regarding the settlement of oil transactions was decisive in calming the troubled waters. In particular it promoted the continued role of the USD as the global reserve currency beyond the end of the Bretton Woods system. The previous partial *gold* cover was replaced by an implicit *oil* cover. This arrangement has since then often been referred to as the "petrodollar" system. This step, followed by the restrictive monetary policy implemented by the Fed under Paul Volcker, laid the foundation for the US dollar-centric monetary system, which, although tottering, remains with us to this day.

The US dollar's status as the global reserve currency is highly advantageous for the US, as the country can earn a global *seigniorage*[42] via currency creation. As long as large parts of the world are willing to work in exchange for USD created ex nihilo, the US can purchase real goods and services by printing money.

[41] Also see: "Why the gold price rises at all", "In Gold we Trust 2015"
[42] Investopedia.com on seigniorage: "Seigniorage is the difference between the value of money and the cost to produce it — in other words, it's the economic cost of producing a currency within a given economy or country. If the seigniorage is positive, then the government will make an economic profit; a negative seigniorage will result in an economic loss."

By creating dollars out of thin air, the US dollar's reserve currency status has decisively contributed to the greatest global macroeconomic imbalance in economic history. The privilege of being able to issue an international reserve currency was already subject to criticism in the 1960s.[43]

Nevertheless, the advantage imparted by the dollar's reserve currency status is as a rule largely accepted as a given, and the associated systemic problems are simply shrugged off. US officials prefer to avoid the topic as well. In 2015 we witnessed two rare occasions on which the importance of the US dollar's reserve currency status for the US was admitted at the highest levels, first by US secretary of state John Kerry[44] and then also in a speech delivered by US president Barack Obama[45]. **It should definitely be assumed that maintaining the reserve currency status quo plays an important role in US geopolitical strategy.**

The Triffin Dilemma and its Consequences

„A fundamental reform of the international monetary system has long been overdue. Its necessity and urgency are further highlighted today by the imminent threat to the once mighty U.S. dollar."

Robert Triffin, 1960

Economist Robert Triffin, who inter alia worked for the Fed and the IMF, showed in the 1960s already that a nation that issues a global reserve currency is subject to a conflict of interests between short term domestic and long term international goals – the Triffin dilemma. According to Triffin, the two following characteristics of an ideal reserve currency are incompatible:

- **Stability:** a currency is only stable if the issuer's current account is in balance
- **Provision of a sufficient supply of the reserve currency to the world:** In order to supply the international demand for the reserve currency, the issuing nation has to have a current account deficit

The means specifically that the US cannot sustainably reduce its current account deficit (currently approx. USD 40 bn. per month), as the resulting liquidity shortage would trigger a contractionary downward spiral. We could observe an ample number of precedents in recent decades. **The most recent one was the shrinking of the US current account deficit on account of the US fracking boom, which led to a rally in the dollar and upheaval in emerging markets in its wake.**

However, a permanent expansion of the US current account deficit isn't a sustainable solution either, as the flood of dollars leads to a decline in confidence in the greenback. Moreover, boom-bust cycles are exported to the rest of the world in this way – particularly to emerging markets.

Triffin identified the problems of the current monetary system and proved empirically that the preceding system in which the British pound played the role of reserve currency had precisely the same problems. **He proposed therefore that a new global senior currency should be created.**

d. Global inflation trends in a dollar-centric world

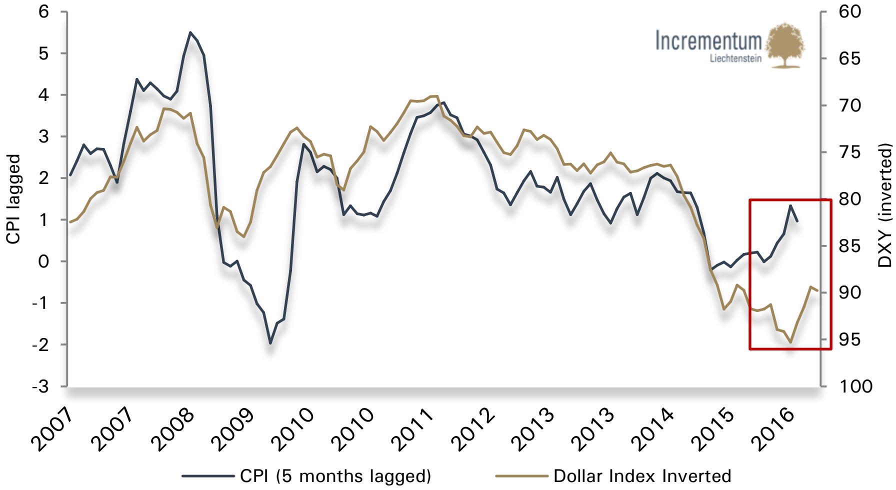
"I found myself doing extraordinary things that aren't in the textbooks. Then the IMF asked the U.S. to please print money. The whole world is now practicing what they have been saying I should not. I decided that God had been on my side and had come to vindicate me."

Gideon Gono, former governor of the Reserve Bank of Zimbabwe

In what way is today's monetary architecture relevant for investors? The dollar's external value is naturally important for the trend in domestic US price inflation. As the chart below shows, there is a time lag of approximately five months before dollar appreciation or depreciation affects the trend in the US price inflation rate. **Should the recent weakness in the US dollar persist, one should therefore expect US price inflation to exhibit a tendency to rise.**

[43] Valery Giscard d'Estaing described that constellation as an "exorbitant privilege".
[44] See: Strobel, Warren: "Dollar could suffer if U.S. walks away from Iran deal: John Kerry", *Reuters*, August 12, 2015
[45] See: "Remarks by the President on the Iran Nuclear Deal", The White House, Office of the Press Secretary, August 05, 2015

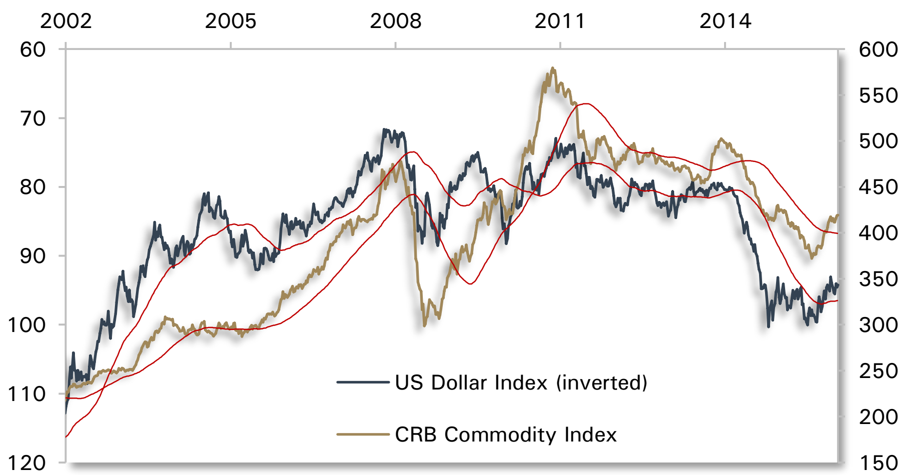
US CPI vs. US dollar index (lagged by 5 months, USD axis inverted)



Source: Federal Reserve St. Louis, Incrementum AG

Why is the trend in the US dollar of decisive importance for international inflation trends as well? In recent years a textbook example of systemic instability could be observed. Thus, the price of crude oil declined by more than 50 percent within a mere seven months. Many analysts have attributed this exclusively to supply/demand factors, an explanation which we believe to be inadequate. All industrial commodities, as well as practically every fiat currency, have declined massively against the US dollar over the same time period. **Such a simultaneous devaluation of all commodities is tantamount to a disinflationary earthquake in the current dollar-centric monetary system.**

US Dollar Index (lhs, inverted) vs. CRB Index (rhs)



Source: Federal Reserve St. Louis, Incrementum AG

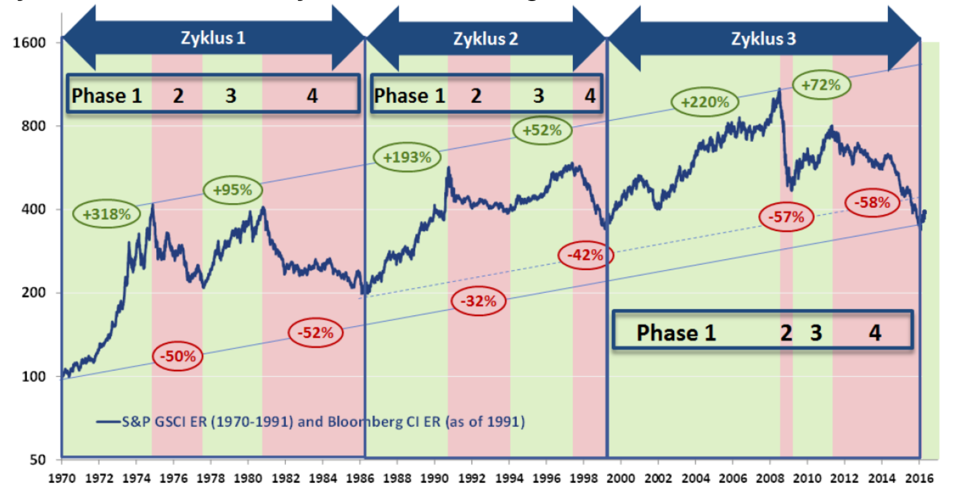
In our opinion commodities, as an asset class, are an antidote to the USD. There is reciprocity between the movements in commodity prices and the USD, with causality attributable to the USD to a greater extent than is generally assumed.

However, the US dollar is also a central reference value for all other currencies. While they used to be firmly anchored to gold in the previous gold-centric monetary system, they are nowadays tied to the US dollar, which is drifting like a buoy in a continually changing swell. In this role the dollar's relative value vs. gold, respectively a broad basket of commodities plays a decisive role in global price inflation trends.

"Of course, the 'dollar price' of a gold ounce may have changed radically in the years. That's not a gold problem; it's a dollar problem."
Jim Rickards

If the dollar depreciates against gold and commodities, all other currencies implicitly depreciate as well, and global price inflation will tend to rise. According to Tiberius Research, three large commodity cycles could be observed since 1971. What is interesting in this context is that the end of these cycles roughly coincided with temporary peaks in the US dollar.

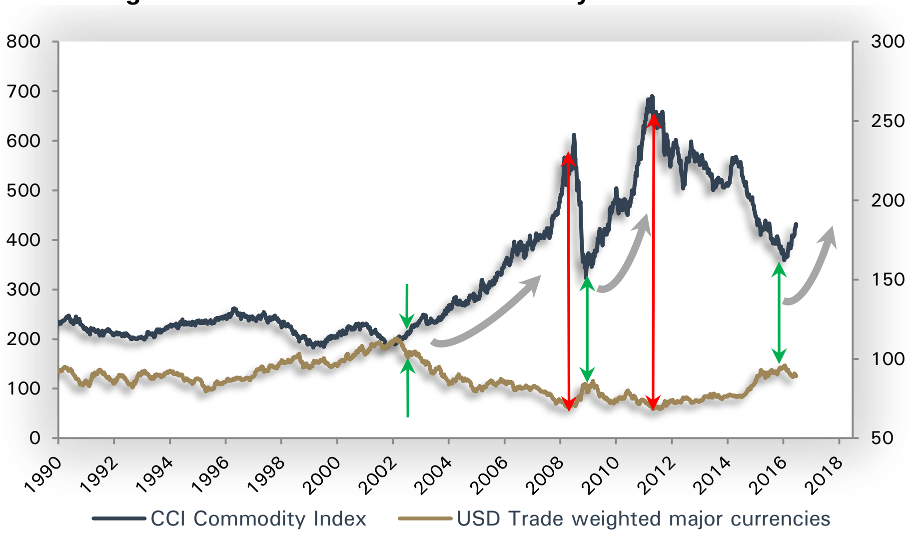
Cycles in the commodity markets: the long view 1970-2016



Source: Tiberius Research, Dr. Torsten Dennin, Bloomberg

Since the 1990s, turning points in the trade-weighted US dollar index appear to coincide especially closely with turning points in commodity prices. It seems as though another such turning point has occurred in early 2016.

Trade weighted USD-Index vs. CCI Commodity Index



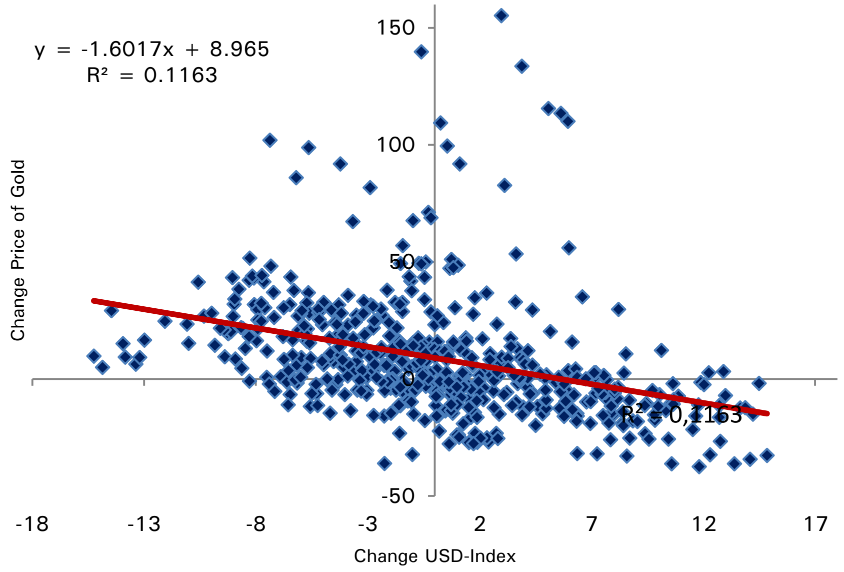
Quelle: Federal Reserve St. Louis, Incrementum AG

The dollar's relationship to gold seems highly relevant as well. The following chart shows the monthly change in the gold price (vertical axis) as well as that of the trade-weighted US dollar (horizontal axis) since 1973. A negative correlation is evident, read, gold tended to do better when the dollar

"Gold's benchmark is the inverse of the perceived purchasing power value of the US dollar. The lower the Dollar's perceived purchasing power over time, the greater the perceived value of gold over time, and vice versa."
Paul Brodsky

was weakening. The intersection of the regression line with the y-axis shows that in a dollar neutral environment, the gold price tended to increase by an average of approximately 9%. As the quadrant to the lower right illustrates, phases during which the dollar's exchange rate was strong usually dampened gold's performance.

The "alpha" of the gold price



Source: Incrementum AG, Fed. St. Louis

The following table shows the negative correlation between the dollar index (USDX) and the gold price quite clearly. It moreover shows that USDX and gold are not only overall negatively correlated (correlation coefficient: minus 0.63), but also that this inverse relationship is especially pronounced during bull and bear markets in the USDX.

Annual performance of the gold price, volatility, as well as correlations in different dollar regimes

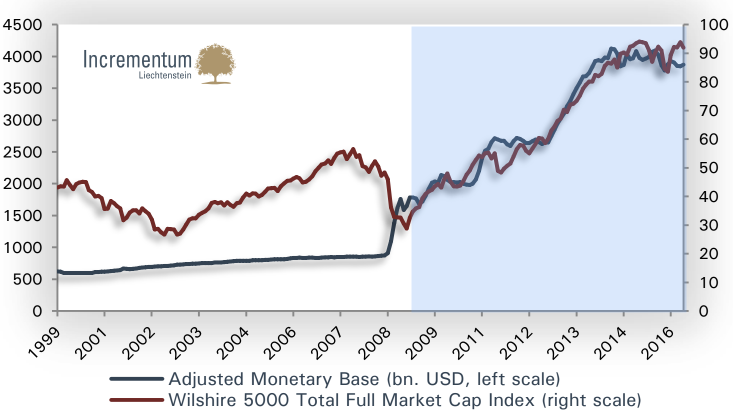
	Performance	Dollar Depreciating	Stable Dollar (Trading Range)	Dollar Appreciating
Return	6.2%	14.9%	7.8%	-6.5%
Volatility	19.5%	18.4%	20.2%	19.7%
Correlation Equities	-0.06	0.07	-0.16	-0.11
Correlation Commodities	0.15	0.16	0.14	0.07

Source: World Gold Council, Incrementum AG

e. Cycles of consumer price inflaton vs. asset price inflation

As already discussed, there are time periods during which monetary inflation has a greater effect on consumer prices, and phases during which monetary inflation is primarily affecting asset prices. The Fed's QE programs have e.g. primarily led to asset price inflation. A debt saturated household sector does not express additional demand for credit, leaving all the central bank created money sloshing around financial markets instead of reaching the "real" economy; hence creating asset price inflation rather than consumer price inflation. The effect of monetary inflation on the trend in US stock prices is particularly conspicuous in this context. The strong correlation between the Fed's balance sheet total and the US stock market has been in force for eight years now.

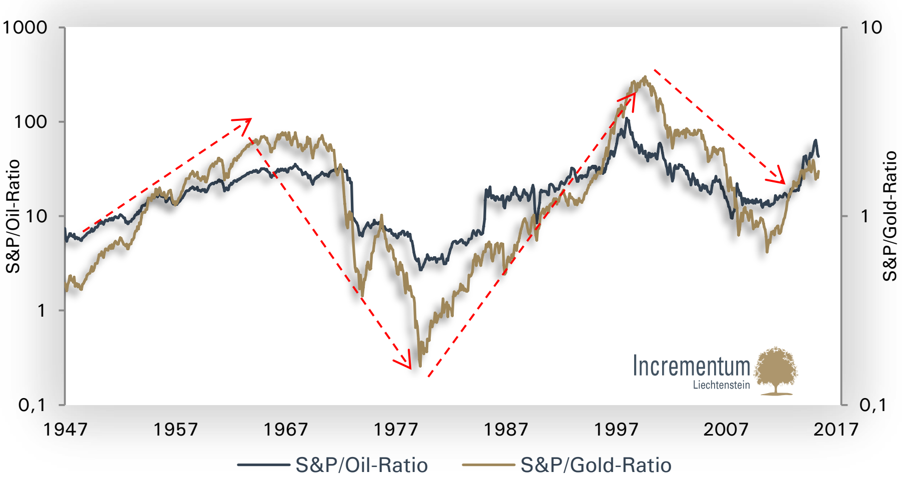
US monetary base vs. the Wilshire 5,000 Index



Source: Federal Reserve St. Louis, Incrementum AG

In order to examine the theory that there exist alternating long term cycles during which either consumer price inflation or asset price inflation predominates, we want to depict the two price trends relative to each other. Since we are sceptical with respect to the methodology used in the calculation of consumer prices, we are using a commodity price index as a proxy. A broad stock market index serves as the yardstick for asset prices.

S&P/Gold vs. S&P/Oil-Ratio

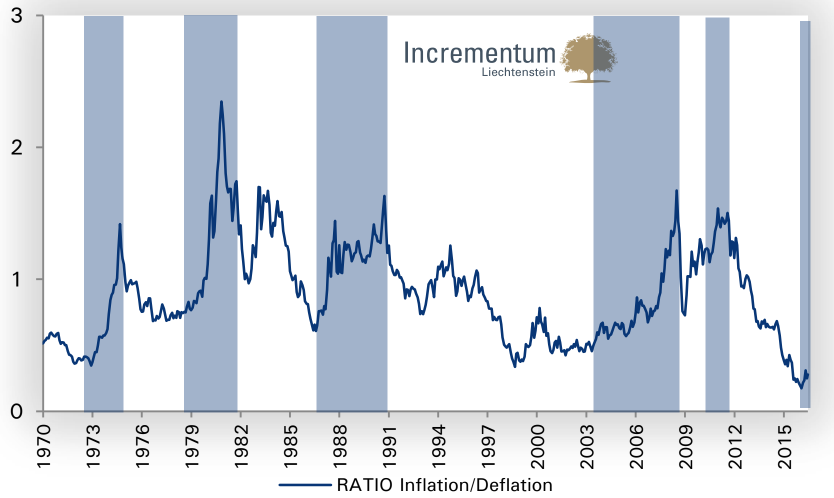


Source: Yahoo Finance, Incrementum AG

The insight provided by this ratio is that there have indeed been several price inflation cycles in recent years, which have manifested themselves alternately in asset prices and the prices of goods. Similar to what happened at the peaks in 1966 and 2000, another change in trend appears to have occurred at the end of 2015. **This would argue in favor of the notion that inflation-sensitive assets will significantly outperform traditional asset classes such as stocks in coming years.**

Many indicators are confirming this at present. Martin Pring, an iconic figure in the field of technical analysis, has developed a very interesting method of comparing different inflation phases. His *Pring inflation and deflation indexes* are replicating stock market sectors that are sensitive to changes in inflation. Deflation-sensitive stocks include banks, utilities and insurance companies, while inflation-sensitive stocks include mining and energy stocks. The highlighted periods show a rising ratio, which indicates that inflation-sensitive stocks are outperforming.

Ratio of inflation- /deflation-sensitive stocks



Source: Martin Pring, Incrementum AG

We believe that the radical reflation efforts of central banks are slowly beginning to succeed. As we have already noted in previous reports, this is however a dangerous game, as it is hardly possible to keep the momentum of inflation under control. The widespread belief that central banks can easily and at any time push the "inflation genie" back into the bottle is based on numerous erroneous assumptions. For instance, the time lags attending an inflationary process are greatly underestimated. As mentioned above, **significant monetary inflation has already taken place, but has so far "only" affected asset prices**. It is quite strange that rising food prices are usually regarded as a calamity, while rising house prices are considered a blessing. **Both cases are simply a symptom of declining purchasing power - whether it finds expression in house prices or food prices is irrelevant in this context.**

f. Criticism of the calculation of inflation

"Inflation makes it possible for some people to get rich by speculation and windfall instead of by hard work. It rewards gambling and penalizes thrift…
It finally tends to demoralize the whole community. It promotes speculation, gambling, squandering, luxury, envy, resentment, discontent, corruption, crime, and increasing drift toward more intervention which may end in dictatorship."

Henry Hazlitt

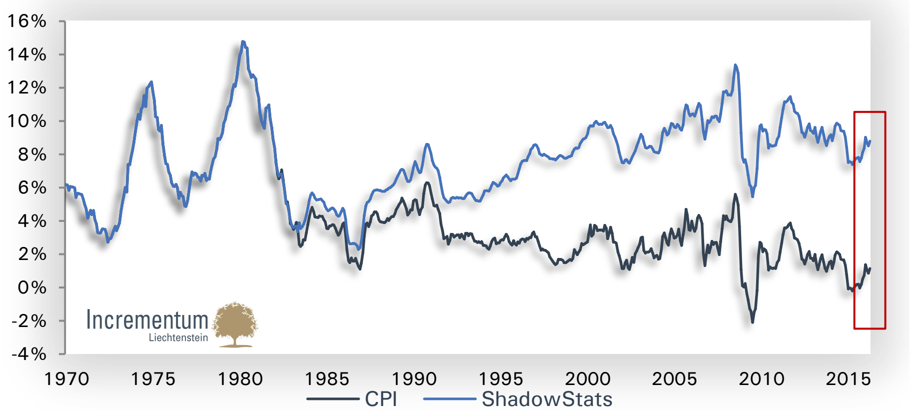
"The cardinal maxim is, that any aid to a present bad Bank is the surest mode of preventing the establishment of a future good Bank."
Walter Bagehot (published in 1873)

We have criticized the officially reported inflation data on several previous occasions already. The incentive for policymakers to report low inflation rates is obvious: Numerous types of welfare spending, transfer payments, salaries of civil servants, pension payments, etc. are tied to price indexes. Moreover, low inflation results in higher real GDP growth being reported, which is calculated by dividing nominal economic growth by a price index. The valuation, resp. demand for government bonds also depends strongly on current, and particularly *expected* price inflation rates.

Too low price inflation data furthermore distort the reactive function of monetary policy: **It is suggested that we are close to the allegedly catastrophic threshold to deflation, and that audacious measures have to be taken as a result. In short, there is obviously great interest in keeping official inflation rates as low as possible.**

Several different methods for the calculation of price inflation exist, some of which are probably superior to the official data. Shadow Stats for instance calculates the inflation rate according to the methodology employed in the 1980s, i.e., prior to the 24 different "adjustments" of the methodology implemented by the *Bureau of Labor Statistics* since then. The divergence between the inflation rate reported today and the inflation rate according to the old calculation method is shown in the following chart. **While official price inflation according to the CPI averaged 2.7% per year, Shadow Stats calculates an average inflation rate of 7.6% p.a.**

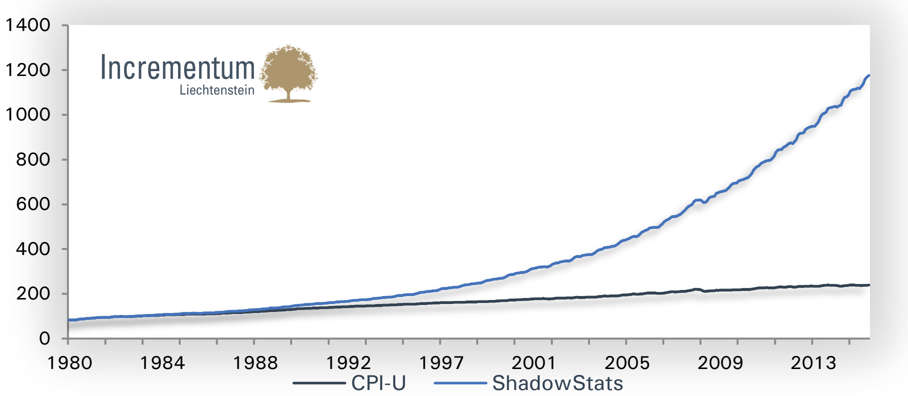
Official CPI inflation rate vs. Shadow Stats inflation rate (y/y)



Source: Shadow Stats, BMG Bullion, Incrementum AG

If one depicts the two time series as an index, one can see that according to the Shadow Stats data, the cost of living has risen more than 10-fold since 1980, while the official CPI data indicate only a 138% increase.

CPI and Shadow Stats Inflation Index since 1980



Source: Shadow Stats, BMG Bullion, Incrementum AG

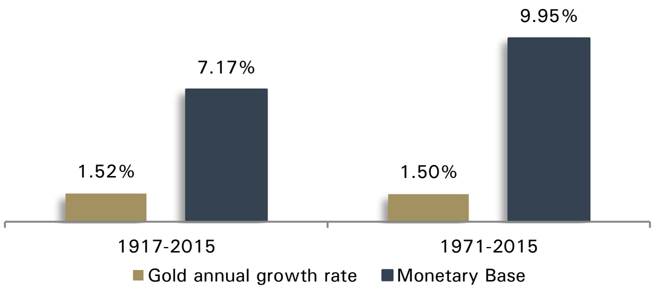
Another method of calculating price inflation is a long term comparison of the purchasing power of fiat money and gold. This topic will be discussed in the next chapter.

g. Gold and the Illusion of Nominal Value

In his “scholions”, which are always well worth reading, Rahim Taghizadegan writes: *“In a society based on the division of labor, most catallactic acts of exchange are settled via the mediation of a generally accepted medium of exchange: money. This medium also serves as a standard of comparison, enabling one to estimate the opportunity costs attending exchanges. Money is not only a medium for a value proposition, it is a value proposition in itself. Its purchasing power depends on the evaluation of its quality.* ***In the case of money, quality primarily refers to its liquidity, this is to say the possibility to exchange it at any time and in any amount against other goods and services.****”*[46]

Historically the annual increase in the total stock of gold was consistently lower than the expansion of the money supply. Gold therefore protects investors in the long term against the loss of purchasing power caused by persistent money supply inflation in the fiat money system. Rather than looking at higher gold prices as a gain in the precious metal's value, they should be seen as a consequence of monetary inflation.

Annual rate of change: gold vs. monetary base 1917 – 2015 and 1971 – 2015

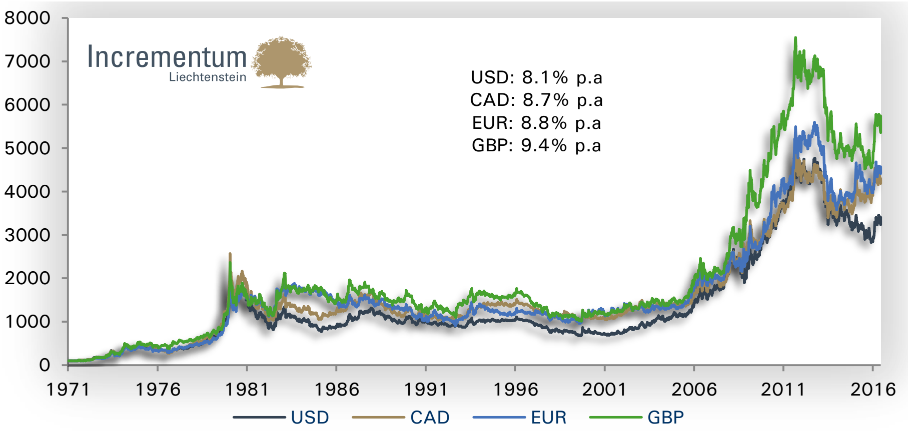


Source: Incrementum AG, James Turk, World Gold Council

[46] See: Taghizadegan, Rahim: “Gewalt“ (“*Violence*”), *Scholien 01/16*, Scholarium.at

Even though the gold price in US dollar terms is currently not (yet) in the vicinity of its all time high, the data are clear: the price of gold in terms of the dollar has increased by a factor of 34 since 1971. **In the long term the gold price is rising against every paper currency.**

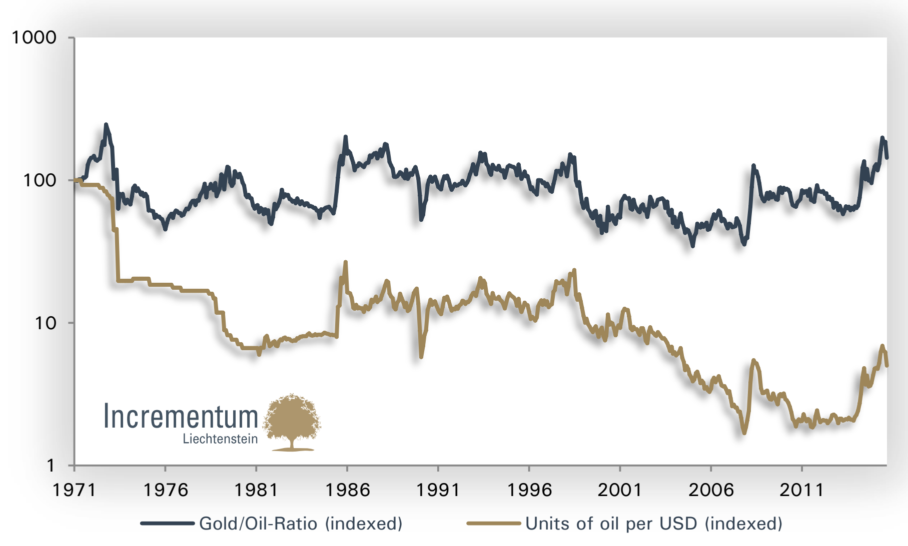
Long term trend of the gold price in various currencies (indexed to 100)



Source: Fedearl Reserve St. Louis, Incrementum AG

The gradual erosion of purchasing power since 1971 can also be discerned in the next chart. On the one hand it shows the gold/oil ratio (i.e., how many barrels of oil can be bought with one ounce of gold?), and on the other hand it shows the inverse of the oil price (i.e., how many units of oil can be bought with one US dollar?). One can see that while the price of oil in terms of gold tends to be *relatively* stable over time and gold's purchasing power currently stands actually 40% above the level of 1971, the US dollar has lost has more than 95% of its purchasing power relative to oil over the same time period.

Gold/Oil-Ratio and Units of oil per USD (both indexed)



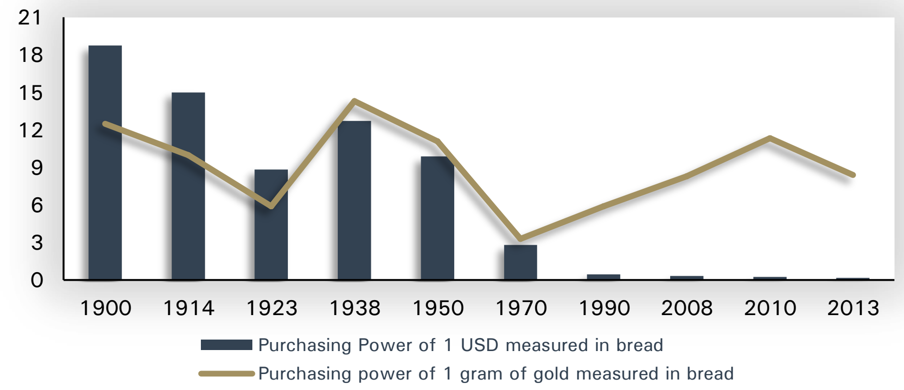
Source: Federal Reserve St. Louis, Incrementum AG

"For the naive mind there is something miraculous in the issuance of fiat money. A magic word spoken by the government creates out of nothing a thing which can be exchanged against any merchandise a man would like to get. How pale is the art of sorcerers, witches, and conjurors when compared with that of the government's Treasury Department!"
Ludwig von Mises

However, we have apparently become accustomed to continually rising prices. A simple example from everyday life: In the summer of 2016 all of Europe is focused on "King Soccer". The European championship is underway and with it the peak season for Italian sticker manufacturer Panini. At the time of the 1992 championship, a packet containing five stickers could be bought for 50 German pfennigs (or 3.50 Austrian schillings). But at the time of the 2000 championship this had increased to 60 pfennigs and today the price is 60 euro cents. This is a price increase of 140 percent within 24 years.

However, the popular stickers made by Panini are by no means the only product which is getting ever more expensive when measured in terms of the real purchasing power of consumer incomes. Such historical comparisons become truly explosive if one looks at price developments in terms of gold. **In the following we therefore want to show several historical comparisons that illustrate gold's ability to preserve purchasing power in the long term**.

The value of gold and the USD relative to rye bread



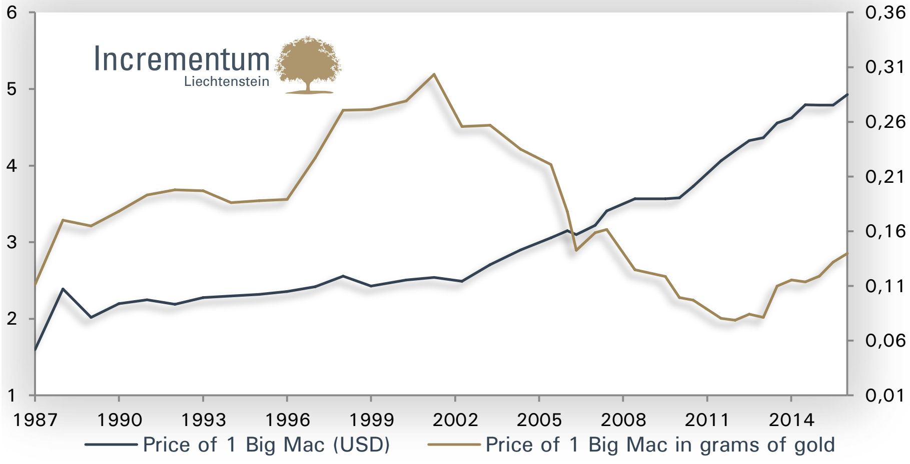
Source: Wirtschaftswoche, Investor Verlag, Incrementum AG

While bread is representative of staple foods, the Big Mac is representative of fast food. *The Economist* magazine developed the Big Mac index in 1986 as an indicator for differences in the purchasing power of various currencies. **While it was originally merely intended as a striking example illustrating differences in purchasing power, the index has in the meantime become the world's best-known indicator of purchasing power.** Originally its purpose was to test the purchasing power parity theory empirically. According to this theory, exchange rates will tend to converge in the long term so as to offset differences in purchasing power. Thus the price of USD 4.93 for a Big Mac in the US compared to the price of USD 2.68 charged for a Big Mac in China would be considered evidence that the yuan is undervalued relative to the US dollar. Over the long term, the yuan should appreciate relative to the USD, until a Big Mac costs the same in both countries.

The following chart shows the historical price of a Big Mac measured in US dollars and in grams of gold. While gold's purchasing power appears to be more volatile than that of the dollar in the short term, its value is clearly more stable in the long term. Between January of 1987[47] and January of 2016 the price of a Big Mac has more than tripled in dollar terms, rising from 1.60 to 4.93, while in gold terms it has only risen from approximately 0.11 to approximately 0.14 gram.

[47] Unfortunately, longer-term time series have not been available.

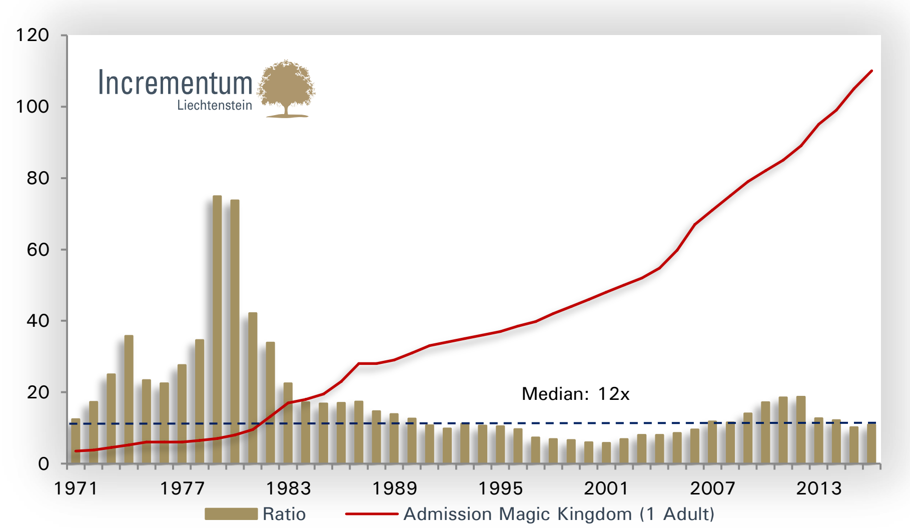
Price of a Big Mac measured in USD (lhs) and in grams of gold (rhs)



Source: The Economist, Incrementum AG

The contrast between the purchasing power of gold and paper money becomes especially obvious when looking at the prices of leisure attractions. The entrance fee for the Disney World Magic Kingdom in Florida is used as a proxy for leisure attractions in the US. At the time of its opening in 1971, the ticket price stood at USD 3.50 per day, today the entrance fee amounts to USD 110 per day. That equates to an average annualized price increase of 7.96%, twice the official inflation rate. If one looks at these ticket prices in gold terms, it can be seen that a median of 12 tickets could be purchased with an ounce of gold over time. Currently this figure stands at 10.9, which is quite close to the long-term average.[48]

Ticket price for Disney World vs. Gold/ Disney World ratio



Source: Incrementum AG, WDW Ticket Increase Guide

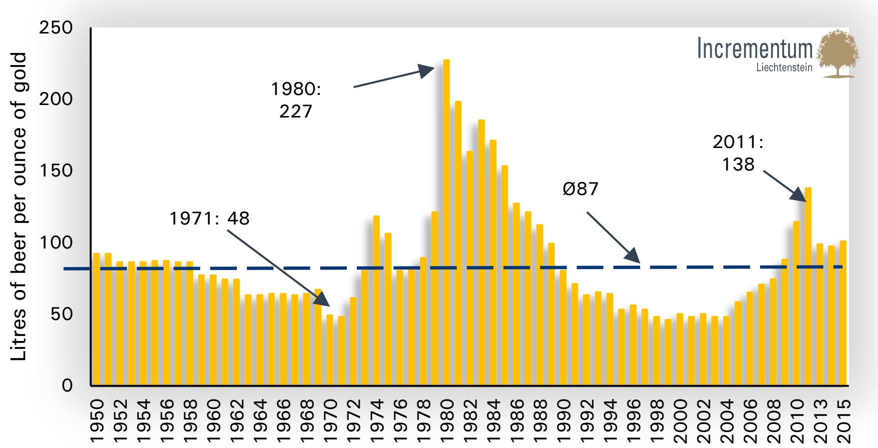
"The mouth of a perfectly happy man is filled with beer."
Egyptian proverb

What Disneyland is for Americans, the Oktoberfest is for Bavarians. A regular feature of our chart collections is the "beer purchasing power" of gold. While a liter of beer (a "Maß" in German) at the Munich Oktoberfest in 1950 cost the equivalent of EUR 0.82, the average price in 2015 was EUR

[48] See: "Shocking Disney World Price Inflation", National Inflation Association

10.25[49] The annual price inflation of beer since 1950 thus amounts to 4.2%. If one looks at the price of beer relative to the gold price, then one ounce of gold could buy 100 liters of beer in 2015. Historically the average is 87 liters – thus the "beer purchasing power" of gold is currently slightly above the long-term average. The peak was however reached in 1980 at 227 liters per ounce. We believe it is quite possible that this level will be reached again. **Beer drinking friends of gold should therefore expect the metal's beer purchasing power to increase.**

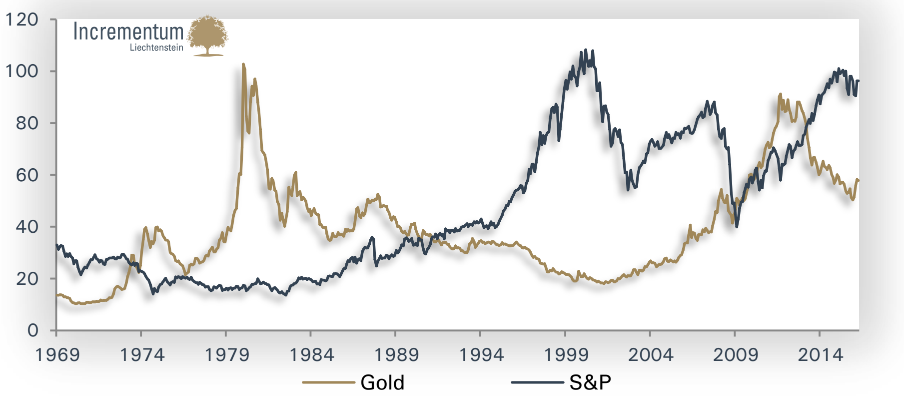
Gold/Oktoberfest beer ratio



Source: www.HaaseEwert.de, Historisches Archiv Spaten-Löwenbräu, Incrementum AG

Looking at the significant erosion in the purchasing power of paper money relative to gold and other asset classes, such as stocks, is an interesting exercise as well. The average US employee must currently put in 55 hours of work in order to be able to buy one ounce of gold. In 1969 it took only 15 hours. In order to buy one unit of the S&P 500, 96 hours of work are currently required – back in 1969, only 35 hours of work were needed. Both asset classes show that wage earners have been impoverished in real terms, as they have to work significantly longer hours nowadays if they want to purchase investment assets.

Number of work hours needed to purchase an ounce of gold or one unit of the S&P 500 Index



Source: Federal Reserve St. Louis, IMF, BLS, Incrementum AG

[49] Depending on the marque, a Maß cost between EUR 10.10 and EUR 10.40.

Conclusion

"Gold was not selected arbitrarily by governments to be the monetary standard. Gold had developed for many centuries on the free market as the best money; as the commodity providing the most stable and desirable monetary medium."
Murray Rothbard

Men and machines are becoming more productive and are doing more efficient work. In a healthy, sound and fully-backed monetary system, prices would therefore steadily decline. Alas, the exact opposite is actually the case. What changes perpetually is the value of paper money. It declines year after year, while the working population is forced to struggle with stagnating or even falling real incomes.

Gold by contrast has a track record of successfully preserving value and purchasing power over thousands of years. In the course of human history, the market has chosen gold as the best money based on logical and rational reasons – such as its high liquidity, indestructibility, high value density, fungibility, divisibility, world-wide acceptance, etc. The slow and steady growth in its supply from mining (the global stock of gold is growing at approximately the same pace as the population) ensures stability and confidence. **These unique characteristics are making gold one of the best hedges against excessive money supply expansion and Black Swan events.**

h. Helicopter money: the reflation policy's ace in the hole?

„We understand that in the past you have described the concept as 'very interesting', but that it is not something that the ECB is currently investigating. As members of the European Parliament, we call on you to investigate these different and alternative policies."[50]

18 members of the European Parliament writing an open letter to Mario Draghi

"...a very interesting concept…"
Mario Draghi

Central banks are currently about as successful in generating rising prices in line with their inflation targets as the GDR's politburo was in regularly supplying the population with bananas. For several years price inflation has come in way below plan, as a result of which the list of measures central bankers might need to implement next in order to finally boost inflation is getting longer and longer. One concept that is currently a topic of debate nearly everywhere, and which although it hasn't been discussed by the ECB council yet, is "very interesting" according to Mario Draghi, is so-called helicopter money. Peter Praet, chief economist of the ECB, told the Italian newspaper La Repubblica that this "extreme instrument" would in principle be available as a last resort.[51] This seems a good enough reason to take a closer look at it.

What is helicopter money?

"The fact that no responsible government would ever literally drop money from the sky should not prevent us from exploring the logic of Friedman's thought experiment"
Ben Bernanke

The metaphorical term "helicopter money" was coined by Milton Friedman, who used it as an illustration in the context of his monetary theory, describing money supply inflation as akin to a helicopter flying over a model community and dropping money that people would then pick up from the ground. [52] Nowadays it describes a targeted interest- and debt-free expansion of the money supply consisting of direct transfer payments to governments or households. **The goal is to boost demand, and with it inflation.** Thus money created by the central bank will no longer be injected

[50] See: "MEPS Want the ECB to look at Helicopter Money", qe4people.eu
[51] See: Giugliano, Ferdinando and Tonia Mastrobuoni: "Peter Praet, capo economista all'Eurotower: La Bce potrà abbassare ancora I tassi", *La Repubblica*, March 18, 2016
[52] See: Friedman, Milton: *The Optimum Quantity of Money: And other Essays*, AldineTransaction, 1969

into the economy by buying bonds from banks as has been the case hitherto, but possibly by one or more of the following four methods:

1. **QE combined with fiscal expansion:** central banks purchase government bonds, temporarily increasing the money supply. This lowers the cost of government financing and creates leeway for fiscal stimulus or tax cuts.
2. **Cash transfer payments to governments:** Very similar to point 1, but without governments having to redeem the debt – the central bank expands the money supply permanently. Rolling over outstanding debt in perpetuity would be one way to circumvent various legal aspects with this strategy. An implicit guarantee that central banks will do this for newly bought bonds also seems possible.
3. **Cancellation of outstanding debt securities, which central banks hold as assets on their balance sheets:** this can be a one-off measure, but regular haircuts of a specific percentage size would also be thinkable. The purchase of negative yielding bonds de facto already represents such a measure.
4. **Cash transfer payments to private households:** Central banks issue checks to individuals or simply credit a certain amount to their bank accounts. [53]

The mere continuation of monetary policy by other means?

Hans-Werner Sinn points out that the QE programs of recent years – even though government bonds were only purchased in the secondary markets – essentially already represent helicopter money as described in point 1. Newly printed central bank money has reached government budgets indirectly through the debt channel, and has served to fund expenditures which otherwise would have required tax increases. Since the interest payments on these bonds are flowing back to governments via distribution of the central bank's profits, this form of financing is ultimately interest-free as well.

"While democratic governments are nowadays determining the extent of their indebtedness, as well as who the recipients of transfer payments or the beneficiaries of tax cuts will be, in the case of helicopter money it is the ECB itself that will make these decisions."[54]

"This would be monetary state financing pure, and in many regions illegal. However, those who therefore dismiss the idea as a pipe dream, underestimate the flexibility of the law and forget that ten years ago, the notion of negative interest rates was at best thought suitable as a little joke around the water cooler. Many a central banker probably regards helicopter money [….] no longer merely as a surreal thought experiment."
NZZ

Helicopter money is legally possible

The suspicion that central banks would exceed their mandates by issuing helicopter money has been frequently voiced. For instance, Bundesbank president Jens Weidmann remarked: "*Central banks do not have a mandate for this policy, not least because massive wealth redistribution would be associated with it*". The legal mandate of ensuring price stability could no longer be safeguarded in the long term in the event of state financing through the printing press, as the momentum of price inflation could easily get out control. However, upon taking a closer look at the issue, many economists have come to the conclusion that the legal hurdles are much lower than is generally assumed.[55]

A study by Deutsche Bank shows that helicopter money – taken to mean monetary state financing – isn't really a new concept, but has already been

[53] See: Saravelos, George, Daniel Brehon and Robin Winkler: "Helicopter 101: your guide to monetary financing", Deutsche Bank Research, April 15, 2016
[54] See: Sinn, Hans-Werner: "Gefährliches Helikopter-Geld", *Frankfurter Allgemeine Zeitung (guest commentary)*, March 31, 2016
[55] For instance, Klaus Adam, who formerly worked in the research department of the ECB and now is professor at the University of Mannheim, notes it would not violate the central bank's mandates if they acted on their own initiative and with respect to their inflation targets.

practiced several times in the past. The institutional framework conditions of central banks are very vague and leave a lot of scope for interpretation; specifically the quite unconventional variant of transfer payments to citizens seems legally unproblematic.[56] Political will is ultimately more important than technical and statutory framework conditions. **On occasion of the next recession at the latest, helicopter money will likely appear on the agenda.**

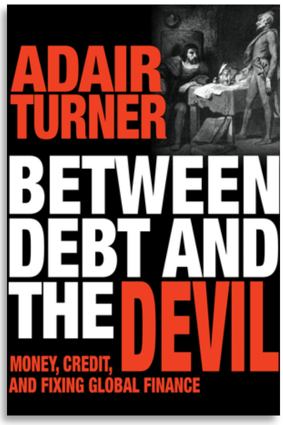
The limits of the debt money system

As mentioned above, the measures taken to date in the form of zero, respectively negative interest rates and QE have been quite unsuccessful. This was inter alia due to the fact that the efforts of central banks to persuade commercial banks to expand credit have been partially countered by government efforts to make banks safer by means of directives such as Basel III and also because there has been limited demand for new credit in the private sector. In addition, negative interest rates actually seem to hamper credit expansion: Banks are reluctant to pass them on to their depositors, who would likely flee into cash. As a result of this the net interest margins of banks are shrinking, which dampens rather than boosts credit expansion. Helicopter money would therefore represent a suitable means of circumventing the banking sector with respect to the money supply expansion process, as a result of which it is occasionally referred to by the moniker "***QE for the people***".

"In theory at least, helicopter money could prove a valuable tool. In particular, it has the attractive feature that it should work even when more conventional monetary policies are ineffective and the initial level of government debt is high."
Ben Bernanke

A prominent and above all influential advocate of helicopter money is Adair Turner, the former chairman of the British financial market supervisory authority, who last October published a book entitled "Between Debt and the Devil".[57]

"Many market participants assert that central banks have run out of ammunition. I continue to believe otherwise."
Adair Turner



He points out that bank lending mainly serves to finance consumption or the purchase of existing assets such as real estate rather than productive investment, which leads to price spirals and sooner or later to financial crises. Long-term nominal economic growth of around 4% per year in the developed nations prior to the 2008 financial crisis was supported by annual growth in private debt between 10% to 15%. Since then the latter has stagnated and governments have stepped into the breach – with the result that they are now also buried in debt up to their ears. These high debts are now dampening the effects of both conventional monetary and fiscal policy and are paralyzing growth. Turner moreover states that aggregate demand is too low and needs to be boosted.

"The MMT worldview is intriguing, if only because it is so different from even the way conventional Keynesians think about fiscal and monetary policy. Unfortunately, it seems to me to be dead wrong. The MMTers concentrate on accounting tautologies that do not mean what they think."
Robert P. Murphy

In order to boost demand, Turner recommends the implementation of so-called "**overt monetary finance**" measures – a policy which according to Turner, is popularly referred to by the somewhat infelicitous term "helicopter money". *"Admittedly there would be a danger that this could lead to a rapid rise in inflation, even to hyper-inflation. One would have to act very carefully when implementing such a measure, and would have to be wary of overdoing it. The greatest risk of monetary state finance is posed by*

[56] See: Saravelos, George, Daniel Brehon and Robin Winkler: "Helicopter 101: your guide to monetary financing", Deutsche Bank Research, April 15, 2016
[57] Turner is also chairman of the Governing Boards of the *Institute for New Economic Thinking (INET)*, a think tank funded by George Soros that should explore new paradigms in economics.

governments, which would quite possibly be tempted by this approach to take such steps over and over again", Turner noted in an interview.[58]

The proponents of *Modern Monetary Theory*[59] also believe the weakness in aggregate demand to be the main problem and are therefore pleading for fiscal stimulus. They are of the opinion that the solvency of governments as issuers of fiat money, which is legal tender and has to be used for the payment of taxes, is unlimited. As long as there are idle resources in the economy, such as e.g. unemployed workers, government can put them to work by spending more money and creating additional demand.

"The issuance of helicopter money would throw the gates wide open for arbitrary political action"
Thorsten Polleit

What would the effect of helicopter money be?
Ideally helicopter money would boost both growth and inflation expectations. Apart from the direct increase in prosperity due to growth, there would be the following additional positive effects:

- **Reduction of debt:** A growing tax base would fill the coffers of governments and it would be come possible to pay back debts, the real value of which would moreover be be lower due to inflation as well. The same would apply if private households were the recipients of helicopter money. Thus, if a part of the helicopter cargo were always spent on paying down debt, it would be theoretically possible to eventually eliminate all debts of non-banks and replace them by central bank money (see also Irving's "100% money regime").[60] However, this would basically only be an accounting trick, in which one piece of paper with a claim to a country's productive output would be substituted for another piece of paper with the exact same claim.
- **Return to monetary policy normalcy:** In the event of an economic expansion and rising inflation rates, interest rates could be gradually raised again. This would restore the ability to conduct conventional monetary policy to central banks and savers and pension funds would breathe a sigh of relief.
- **Political chaos could be prevented:** The growing rejection of current policies by the citizenry, which expresses itself in many regions in the form of growing support for nationalist and anti-establishment political movements, could be subdued (particularly in EU crisis countries, which have been subjected to austerity by EU institutions).

"The more the plans fail, the more the planners plan."
Ronald Reagan

In the process, care would have to be taken to prevent inflation from getting out of hand. However, it would be difficult to keep this under control, as fine-tuning of inflation would be conditional on knowledge which central planners cannot possibly possess or obtain (e.g.: How much money is hoarded? How much is spent on assets? How will prices react if aggregate demand actually rises?). Central banks would therefore be forced to use trial and error in determining the size of the helicopter cargo – and on account of the non-linear nature of these processes, this would be akin to playing blind man's bluff in a minefield:

[58] See: "Theorie & Praxis: Interview mit Adair Turner", *Institutional Money Magazin*, 2/2016, p. 42
[59] *Modern Monetary Theory* addresses the implications resulting from the state's currency monopoly to issue fiat money. Representatives of this theory regard traditional assets in central banks' balance sheets as unnecessary: fiat money could be issued without any limit.
[60] See: Mayer, Thomas: "From Zirp, Nirp, QE, and helicopter money to a better monetary system", *Economic Policy Note*, Flossbach von Storch Research Institute, March 16, 2016

„[I]t needs to be big enough for nominal growth expectations to shift higher and small enough to prevent an irreversible dis-anchoring of inflation expectations above the central bank's target."[61]

"Monetary policy is not a panacea, it cannot replace necessary reforms in certain countries and doesn't solve Europe's growth problems either."
Jens Weidmann

With respect to the growth impetus triggered by helicopter money, this could turn out to be far lower than many people expect. As we have explained, the importance of consumer spending for economic activity is widely overestimated. **Should helicopter money be used for government financing, it could hamper rather than foster structural reform, as policymakers would likely keep ailing, unsustainable and labor-intensive industries on artificial life support via injections of money, and undermine the process of creative destruction.** Of course this doesn't have to happen: Political leaders could also decide to invest in future-oriented infrastructure projects and allow painful cutbacks to occur in order to improve competitiveness. We believe a fatal spiral of subsidization and trough-feeding to be a more likely scenario over the medium term though, and helicopter money would likely be used to postpone structural reform for as long as possible.

When money is transferred directly to households

"We're going through a very strange period where all economic theories are being tested."
Bill Hoagland

In anglophone countries helicopter money is primarily discussed in the context of monetary financing of government budgets. In the euro zone this variant would face greater problems as there exists no common fiscal policy. Direct transfer payments to citizens are therefore more likely in this currency area. However, what would people actually do if money were indeed falling from the skies like manna?

Oxford economist John Muellbauer has analyzed the 2001 and 2008 tax cuts in the US in a study. In both cases a significant portion of the additional disposable income was spent on consumption.[62] Agnieszka Gehringer and Tobias Schafföner examined the potential effects of negative interest rates and helicopter money on German savers in a study.[63] Their conclusion was that negative interest rates would be highly ineffective with respect to generating consumer price inflation. Helicopter money on the other hand could potentially have a strong inflationary effect: an average of 46.5% of a one-off payment of EUR 2,000 per household would be spent. In the event of regular payments, 30.5% of respondents said they would increase their consumption spending and 20.3% stated they would increase their savings. It can therefore be surmised that the inflationary effect would be strengthened if the helicopter were to be flying its rounds on a regular basis. Although the survey results are declarations of intent and as such have to be treated with caution, they nevertheless allow one to firmly conclude that helicopter money would provide a boost to inflation. **We see behavioural factors at work as well: It is easier to squander an unexpected gift of money than a part of one's regular income.**

From debt money to "reputation money"

Does helicopter money create purchasing power without an expansion of outstanding credit or debt issuance by the government? Quite the contrary: As noted above, newly created central bank money could even gradually

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[61] See: Saravelos, George, Daniel Brehon and Robin Winkler: "Helicopter 101: your guide to monetary financing", Deutsche Bank Research, April 15, 2016, p. 17
[62] See: Muellbauer, John: "Combatting Eurozone deflation: QE for the people", VOXEU.org, December 23, 2014
[63] See: Gehringer, Agnieszka and Tobias Schafföner: "Wenn Negativzinsen und Helikoptergeld deutsche Sparer erreichen" ("*When negative interest rates and helicopter money arrive to German savers*"), *Economic Policy Note*, Flossbach von Storch Research Institute, May 09, 2016

replace existing debt. Is helicopter money therefore a kind of perpetuum mobile of monetary policy?

"The process by which banks create money is so simple that the mind is repelled."
John Kenneth Galbraith

As was to be expected, there is actually a catch. Central bank money injected into the economy is a line item on the liabilities side of a central bank's balance sheet, similar to its equity capital, while on the asset side, there are assets such as gold or government bonds. Since no debt securities are purchased when helicopter money is issued, the money creation process will weigh on equity capital, which could eventually even become negative and jump over to the asset side of the balance sheet. While any other organization would go bankrupt under such circumstances, this can easily be done by a central bank, as it doesn't need to pay its liabilities back. However, the population could lose confidence in the money issued by the central bank, as it would no longer be backed by any assets.

Thomas Mayer, former chief economist of Deutsche Bank and head of the *Flossbach von Storch Research Institute* believes it unlikely that inflation would get out of control as a result of this. In the study "From ZIRP, NIRP, QE and helicopter money to a better monetary system", he points out that the character of money would fundamentally change in this "castling" of equity capital: Money would no longer be credit money, but "reputation money" backed by "the goodwill" of the population.[64]

Crypto-currencies, which have become popular since the financial crisis, are however also pure "reputation money". Crypto-technology would be interesting for official state-issued money as well, as monetary policy could then wean itself entirely from the banking sector: The central bank would simply distribute helicopter money directly to households, and abandon the inefficient and cumbersome system of the private-public partnership in money creation.

This could moreover pave the way to a monetary system in which state-issued money is in competition with other crypto-currencies – inter alia with gold-backed crypto-currencies. Mayer regards crypto-technology as the decisive step toward making Hayek's proposal of a monetary system in which different currencies compete freely a reality. Helicopter money could simplify the changeover to this new system. However, he also believes that the monetary system will still experience a severe crisis before this happens.

„… I cannot close my eyes to the fact that any hope for a voluntary abdication by governments of their present monopolies of the issues of circulating money is utopian."
Friedrich August von Hayek, The Denationalization of Money

Conclusion

"Consider for example a tax cut for households and businesses that is explicitly coupled with incremental Bank of Japan purchases of government debt – so that the tax cut is in effect financed by money creation"
Ben Bernanke (Some Thoughts on Monetary Policy in Japan, 2003)

Monetary policy is at the end of the line – no instrument from the toolbox of conventional and unconventional measures applied to date appears to be working anymore: Interest rates are at rock bottom and can only be lowered further if cash currency is banned; expanding central bank balance sheets further is becoming ever more dangerous as well – not to mention that it has never had the desired effect. Fiscal stimulus launched to counter the last recession has moreover raised government debt to such a dangerous level that it has become nigh impossible to revive the economy from this source. This debt burden also makes a return to monetary policy

[64] See: Mayer, Thomas: "From Zirp, Nirp, QE, and helicopter money to a better monetary system", *Economic Policy Note*, Flossbach von Storch Research Institute, March 16, 2016

normalcy extremely unlikely, as governments would likely be bankrupted left and right as a result. If a recession were to strike, it would strike with full force, as neither monetary policy nor fiscal policy could be used to mitigate it. Only inflation and economic growth could solve this dilemma, but neither of them can be pushed beyond a pedestrian pace. The Gordian knot needs to be cut – but how?

Helicopter money could be the central bankers' ace in the hole, as it would probably indeed boost inflation. Whether this inflation would evolve in an orderly manner or go off the charts in an uncontrollable burst, is difficult to predict. In either case helicopter money could well – whether this is the intention or not – ring in a new era of the monetary system, in which different crypto-currencies with "reputational backing" compete with each other.

"Helicopter money could prove a valuable tool… it should work even when more conventional monetary policies are ineffective and the initial level of government debt is high"
Ben Bernanke

It would also be the time for gold to shine. Should money indeed begin to drop from the skies, the reflation efforts of central banks would in all probability finally succeed and occasionally overshoot their targets - the kind of environment in which gold is traditionally doing well. **Gold, which has been accorded great confidence for thousands of years, could furthermore play an important role in a possible monetary order based on reputation money.**

i. Conclusion "Inflation and Investment"

In our book we write: *The extent to which people underestimate this spiral of devaluation is quite astonishing.* *It is the biggest open secret in economic history. Open, because all historians are aware of it, because it is sufficiently well documented and astonishingly universal. In almost every culture, the guardians of the currency have abused their position. Since the modern monetary revolution, this abuse is however even less obvious, as currencies no longer have a real foundation and have become arbitrarily elastic. Thus the dilution and debasement of debt-based currencies, which is referred to as "inflation" by economists, is a secret for most people: they feel constant pressure as a result of the devaluation, but they are unaware of its causes and are looking in the wrong direction.*[65]

As we will also show in the following chapter, the deliberate debasement of the currency is an old trick. **By creating new money, the value of existing money is diluted and a permanent transfer of wealth is triggered**. The fact that the expansion of the money supply has an effect on asset prices and consumer prices is obvious. Recent decades were characterized by asset prices benefiting from a strong monetary tailwind. The determined effort of the inflationary authorities to prevent consumer prices from falling is currently laying the foundation for a change in the trend of price inflation.

In our assessment, global price inflation will be boosted from July onward due to base effects related to the price of oil. This could be a critical turning point. If we should turn out to be correct with this assumption, **inflation-sensitive asset classes like gold, commodities and particularly mining stocks will be among the best performing asset classes in coming years.**

[65] See: Taghizadegan, Rahim, Ronald-Peter Stöferle, Mark Valek, and Heinz Blasnik: *Austrian School for Investors – Austrian Investing between Inflation and deflation*, mises.at, 2015

5. FROM RISK-FREE INTEREST TO INTEREST-FREE RISK

*"**If you have the power to print money, you'll do it**. Regardless of any ideologies or statements, that you should limit your counterfeit operations to three percent a year as the Friedmanites want to do. Basically you print it. You find reasons for it, you save banks, you save people, whatever, there are lot of reasons to print."* [66]

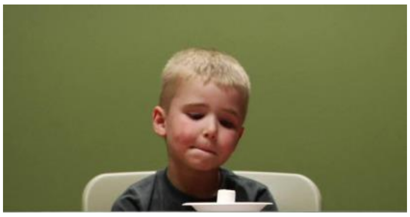
Murray Rothbard

No fun, just risk

We live in truly explosive times. Lingering economic stagnation makes possible what was previously unthinkable. While economists wondered for a long time where the (positive) lower boundary for interest rates was[67] – which John Maynard Keynes suspected to be in a range of 2.0% to 2.5%[68] – this debate has evidently become obsolete today: **Reality shows that negative interest rates can be imposed and enforced by central banks, without triggering great upheaval in the population. We are gravely concerned by and highly critical of the currently rampant negative interest policy: a monetary Rubicon has been crossed. We have strayed unto *terra incognita*.**

In the following section we therefore want to discuss the consequences of zero interest rate policy in detail.

a. The monetary Marshmallow test




Source: Nesta.org.uk

"The first lesson of economics is scarcity: There is never enough of anything to satisfy all those who want it. The first lesson of politics is to disregard the first lesson of economics."
Thomas Sowell

The Marshmallow test is probably the most famous experiment testing people's patience, which is reflected in the concept of time preference in economics. Psychologist Walter Mischel tested the "delay of gratification" by offering a desired object – such as a Marshmallow – to a child.[69] The examiner told the child that he was about to leave, and that the child would receive a second Marshmallow if it did not eat the first one before the examiner returned. The examiner returned after 15 minutes – but in most cases the temptation had proved too strong. In a variety of versions of the experiment, children's waiting time amounted to approximately six to ten minutes (with wide dispersion in evidence).[70]

[66] https://www.youtube.com/watch?v=Ta7q1amDAN4
[67] See: Baionovski, Mauro: "The IS-LM Model and the Liquidity Trap Concept: From Hicks to Krugman", *History of Political Economy*, 2004 (36), pp. 92-126
[68] See: Keynes, John Maynard: *Allgemeine Theorie der Beschäftigung, des Zinses und des Geldes* [engl. *Theee General Theory of Employment, Interest and Money*], Duncker & Humblot, München/Leipzig, 1936, 11th edition (2009), p. 184.
[69] See: Mischel, Yuichi Shoda, and Monica L. Rodriguez: "Delay of gratification in children", *Science*, 1989, pp. 933-939
[70] See: Shoda, Yuichi, Walter Mischel, and Philip K. Peake: "Predicting Adolescent Cognitive and Self-Regulatory Competencies From Preschool Delay of Gratification: Identifying Diagnostic Conditions", *Developmental Psychology*, 1990 (26), pp. 978-986

Why is this experiment relevant to us? We obtain economic gratification if we rein in our impatience with respect to consumption. Interest is the most important gauge for this – it is essentially equivalent to the second Marshmallow in the experiment. Interest is the return for time, the return for people who decide to wait although they would actually prefer to get everything immediately. **Eugen Böhm-Bawerk recognized that interest is not the "price" of money. Rather, interest is the return for the exchange of *"money available today against money available tomorrow"*. One could also refer to it as the *"price of impatience"*.**

Just as the prices of goods convey important information about scarcity in the economy, and are signaling to entrepreneurs which products are demanded most urgently, interest rates convey information about the population's inter-temporal preferences. Aside from long-term thinking, existing reserves are needed in order to be able to postpone consumption. More capital-intensive production methods allow for greater output, but they require resources and time in order to be established. **Whether entrepreneurs can afford to take up this time is signaled by the height of interest rates**.

"Originary interest is a category of human action. It is operative in any valuation of external things and can never disappear."
Ludwig von Mises

When someone forgoes use of something today and makes it available to others, he does so primarily in order to receive more tomorrow. **If one were not concerned about the future, which occasionally even has a second Marshmallow in store, it wouldn't make sense to abstain from consuming the first one. No one would be prepared to wait. Consequently there has to be an originary (or "natural") interest rate, which can be attributed to the impatience of human beings**. According to the Austrian School, this interest rate cannot be observed in the market (even in a non-interventionist monetary system). **A free market interest rate is composed of the natural interest rate (time preference) plus a price (or inflation) premium and a risk premium (which at the same time represents the entrepreneurial profit of the lender).** If risks are high, higher interest rates will be demanded. If a rise in price inflation is expected, interest rates demanded by lenders will increase as well.

Ludwig von Mises summarized the decisive point in *Human Action* as follows:

"[...] there cannot be any question of abolishing interest by any institutions, laws, and devices of bank manipulation. He who wants to "abolish" interest will have to induce people to value an apple available in a hundred years no less than a present apple. What can be abolished by laws and decrees is merely the right of the capitalists to receive interest. But such laws would bring about capital consumption and would very soon throw mankind back into the original state of natural poverty."[71]

Conclusion

"We have become seasoned. Things which once made us say 'oh my God' don't seem that dramatic anymore."
Sweden Riksbank Deputy Gov. Per Jansson

A few years ago, negative interest rates were still unthinkable. Nowadays public debate is solely concerned with the *extent* of negative interest rates. The feasibility and the long-term consequences of the so-called "negative interest rate policy" (NIRP) are rarely discussed. We consider it alarming that such measures are implemented without any sound empirical or theoretical proof showing that they will work.

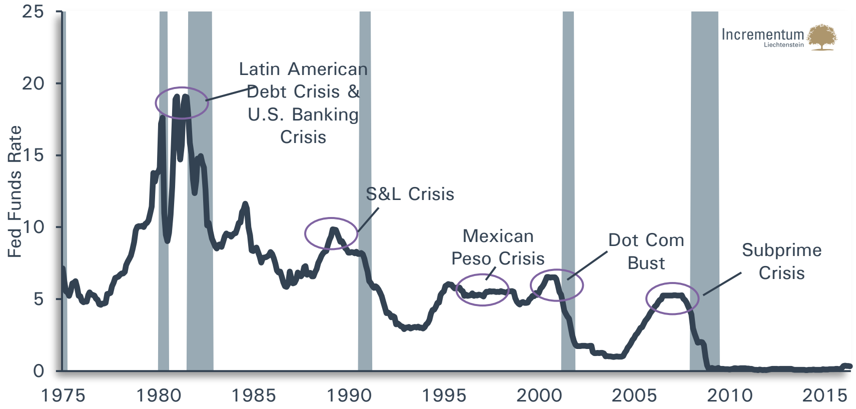
[71] See: von Mises, Ludwig: *Human Action: A Treatise on Economics*, Part 4, "Originary Interest", ed. Bettina Bien Grieves, Liberty Fund Inc., Auburn, 2007

In our opinion, the introduction of zero or negative interest rates by central banks represents a fatal central planning intervention. Negative interest rates contradict the logic of human action and lead to numerous distortions as well as a gradual zombification of the economy. **Moreover, a world in which it no longer matters when exactly one consumes a Marshmallow promotes a "culture of instant gratification" and thwarts the virtues of thrift and restraint.**

b. Negative interest rates in the name of monetary stability

For many years it has been evident that interest rates are lowered far more in times of crisis than they are raised in the subsequent recoveries. Professor Schnabl aptly refers to this as "*monetary policy asymmetry*".[72] In this way one is sooner or later bound to reach an interest rate of zero.

Federal Funds rate and subsequent crises



Source: RealForecasts.com, Federal Reserve St. Louis, Incrementum AG

As several central banks are now standing with their backs to the wall in terms of monetary policy, they are now attempting to revive the economy by means of negative interest rates. In July 2012 the Danish National Bank became the first central bank to impose a negative deposit rate of -0.2%, with Sweden's Riksbank following suit in July 2014 by setting its deposit rate at -0.5%.

In June 2014, the ECB fixed the interest rate on its deposit facility at -0.4%. In Switzerland negative interest rates have in the meantime become commonplace as well. In order to choke off capital flows into Switzerland and keep the Swiss franc from appreciating too strongly, the SNB decided in December 2014 to introduce a negative interest rate of 0.25%, which it lowered to -0.75% in January 2015. Japan is in the meantime also cruising through the interest rate waters in a submarine, so to speak. This step was especially controversial, as only a few weeks earlier BoJ governor Kuroda had vehemently denied that a negative interest rate policy would be adopted.

At this juncture it seems appropriate to analyze the successes, as well as the consequences of negative interest rate policies to date.

[72] See: "Der Goldpreis und seine Einflussfaktoren", *philoro Gold Round Table*, 03/2015, p.8

The most obvious consequence is the creation of an intrinsic "state of investment emergency". Both private and institutional investors are faced with a veritable problem: Even maintaining the nominal value of capital (after deducting all fees) is only possible by taking risks. In order to generate real capital growth, significant risks have to be taken by now.

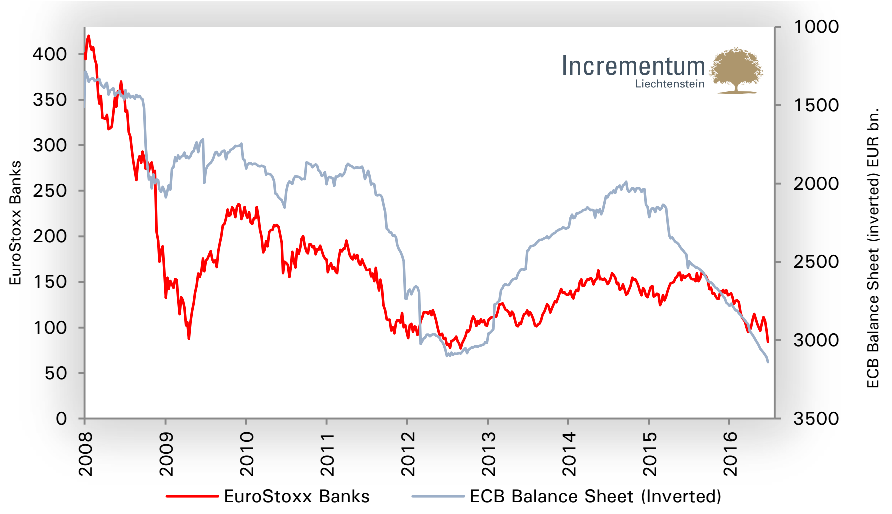
This creates a perverse dilemma for investors: they either have to resign themselves to the steady erosion of their capital, or they must take capital market, liquidity, credit and other risks well beyond their individual risk tolerance levels. Investors are thus damned to either slowly lose their capital or to invest in a risky manner contrary to their personal preferences.

Particularly in the insurance industry, cataclysmic events are predestined if this state of affairs is maintained. In times of over-indebtedness and financial repression, institutional fiduciaries administering large capital investments are obvious funding sources for government debtors anyway.

However, the insurance industry is not the only industry in the institutional sector that is strongly affected. **The traditional banking business depends on interest rate spreads and suffers from zero and especially negative interest rates**. As though the low level of interest rates in absolute terms were not already causing enough trouble for the banks, negative rates have contributed to an even more pronounced flattening of the yield curve. This in turn erodes the income of financial intermediaries further, as the universally popular "maturity transformation" can now only be performed at ever tighter spreads. In recent years it was still possible to generate some measure of return by using short term refinancing from the central bank to invest in longer term assets – this is now becoming ever more difficult as well. As a result, bank stocks are plunging: since the introduction of negative interest rates in the euro area in June 2014, European bank stocks have underperformed the broad stock market index by 25%.

The following chart compares the ECB's balance sheet total to the trend in European bank stocks. **It can be clearly seen that QE – which puts pressure on yields and flattens the yield curve – is fundamentally damaging for banks and their business model.**

ECB balance sheet vs. bank stocks



Source: EZB, Federal Reserve St. Louis, Incrementum AG

Outside of the euro zone the effects of low and/or negative interest rate policies are also not seen to be particularly successful:

- In Denmark, Sweden and Switzerland, the situation is clear: the more deeply interest rates are pushed into negative territory, the higher the savings rate. This reaction is not surprising, since retirement income becomes more uncertain and more money must be set aside as a result.
- According to research by Credit Suisse, only one third of small and medium-sized enterprises believe that they have benefited from the low interest rate policy between 2009 and 2014. Companies were moreover focusing on investing in property – the unproductive evergreen – which in view of the recurring excesses in property markets leaves a stale aftertaste.

"If it were possible to take interest rates into negative territory I would be voting for that."
Janet Yellen, Feb. 2010

Whether the Federal Reserve will ever implement negative interest rates appears questionable. However, Janet Yellen recently confirmed in a written comment that negative interest rates are at least considered to be an "option":

"While I don't want to completely rule out negative interest rates in a future very unfavorable scenario, monetary policy makers have to think through a multitude of factors before they employ this tool in the US, including the possibility of unintended consequences."[73]

"Some of the experiences [in Europe] suggest maybe can we use negative interest rates and the costs aren't as great as you anticipate"
William Dudley, President New York Fed

In our opinion the US financial elite is divided over the issue of introducing negative interest rates. At the moment it appears as though the prevailing opinion is that it would be better to rather return to "well-worn QE" as soon as recessionary clouds appear on the horizon. On the one hand, this conclusion was supported by the rather modest successes achieved by NIRP trailblazers overseas – especially in Japan - on the other hand, one must not underestimate the importance of the money market fund industry in the US. Keeping the value of money market fund units at par is a core accounting principle, undercutting par values – i.e., "breaking the buck"[74] – would in many ways be considered fatal.

Alarmingly, one instead reads in the context of economic stimulus ever more often about good old deficit spending as a "policy instrument". From there, the mental step to helicopter money is probably only a small one. We can be certain about one thing: should economic growth weaken, interventionist measures will once again increase significantly. Leading politicians once again assured us of this at the last G7 summit in Japan in May 2016:

"With respect to the economy, the participants of the summit have promised to use all political instruments – including monetary, fiscal and structural instruments – in order to achieve a pattern of sustainable and balanced economic growth"[75]

[73] See: "Fed Chair Yellen Says She Won't Rule Out Negative Interest Rates", *Fortune*
[74] See: "Breaking The Buck", Investopedia
[75] See: "The G7 Summit in Japan on 26 and 27 May 2016: the European Union's role and actions", European Commission Press Release, May 20, 2016

c. Interest rate limbo: How low can yields still go?

"Over a fifth of global GDP, or 23.1%, will now be produced in countries that have negative interest rates."
Wall Street Journal

Even though we have not (yet) seen negative interest rates in the US, they have by now arrived in five currency areas, which represent a fifth of global economic output in the aggregate. This means that lenders there are paying to make their funds available (or in the case of negative yielding bonds, they will book a certain loss if they hold such bonds to maturity). Why are they doing this?

- **Price for central bank money:** As commercial banks have to provide government bonds as collateral to the ECB as well as in other repo transactions in order to obtain credit. Therefore it may – depending on how urgently central bank credit or repo market funding is needed – make sense to buy bonds with negative yields.
- **Regulations**: The Basel directive of 2015/16 e.g. prescribes that commercial banks must hold "safe" bonds as liquidity buffers.
- **Speculation on price gains**: the prices of bonds with negative yields to maturity can still rise further, as the ECB is e.g. purchasing bonds in the secondary markets in the framework of its QE program.
- **Opportunity costs of physical storage alternatives**: costs are inter alia incurred for vaulting space, personnel and security systems. This means that there is a certain leeway with respect to the lower bound of the negative deposit facility rate, which commercial banks are forced to pay to the central bank for reserve deposits, before physical storage of cash becomes economically viable for them.

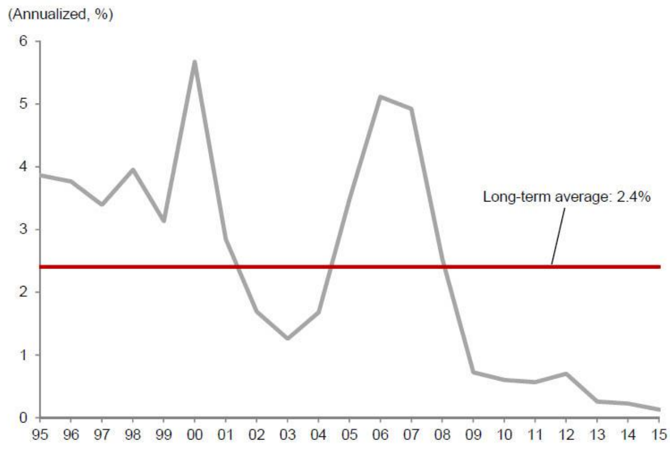
How low can the BoJ cut rates? Just ask Gold!

We want to take a closer look at the latter case. In a fascinating study[76] Nomura has examined how deeply into negative territory interest rates could possibly be pushed and has arrived at the conclusion that the storage cost of gold could actually represent a benchmark for this:

"Theoretically, negative interest rates' lower bound depends partly on the cost of holding cash in the form of physical currency. When people hold cash out of aversion to negative interest rates, they risk losses due to theft and the like. The cost of avoiding this risk could be a key determinant of negative interest rates' lower bound, but it is hard to directly quantify. As a proxy for the cost of holding physical currency, we estimated the cost of storing gold based on gold futures prices. This cost has averaged an annualized 2.4% over the past 20 years, though it has varied widely over this time frame."

[76] See: "How Low Can the Bank of Japan Cut Rates? Ask Gold", Zerohedge.com, February 3, 2016

Estimated gold storage costs



Source: Nomura

"It appears to us there is a lot of room for central banks to probe how low rates can go…While there are substantial constraints on policymakers, we believe it would be a mistake to underestimate their capacity to act and innovate."
J.P. Morgan Research

A study by JP Morgan comes to the conclusion that negative interest rates could decline significantly *below* the storage cost of gold. The explanation for this assumption is that in a layered system (similar to Japan's) only a part of reserve deposits will be subject to negative interest rates. This lowers the cost of keeping funds with the central bank and negative rates could be pushed to even more extreme levels. JP Morgan's analysts estimate that the ECB could manage to push negative rates to -4.5% if reserves in the amount of 2% of GDP were affected. They calculate a possible lower bound for negative rates for the US and Great Britain, of -1.3% and -2.5% respectively, as the ratio of reserves to assets is higher in these countries.

The recent abolition of the 500 euro banknote is connected to this as well. The hypocrisy of the argument that criminals will be thwarted by the abolition of large-denomination banknotes is hard to surpass; studies cited in support of the effectiveness of such a measure consist largely of politically motivated pseudo-science. In an addendum to an article by well-known cash opponent Larry Summers in the Washington Post, the latter's editors felt obliged to point to his conflicts of interest with respect to the issue:

"Summers serves as an advisor or board member to a number of financial technology and payments companies".[77]

However, the most important motive of these hypocritical cash opponents is crystal clear: The costs of storing cash are to be increased in order to create a lower bound for negative interest rates. The abolition of the 500 euro banknote primarily affects banks, which can henceforth only fill their vaults with €200 banknotes, which significantly increases the cost of holding cash – and this in turn enables the ECB to push its deposit facility rates significantly further into negative territory.

In order to go "whole hog" with negative rates, cash currency would have to be abolished entirely. This would make it possible for commercial banks to pass negative interest rates on to savers without having to fear that they will resort to the weapon currently most feared by banks: the mattress, in which grandma already used to hide her Reichsmarks in.

[77] See: Sands, Peter, and Lawrence H. Summers: "In defense of killing the $100 bill", *Washington Post*, February 25, 2016

A study by the Flossbach von Storch Research Institute came to the conclusion that German savers would react quite forcefully to negative interest rates. Only 7.6% of respondents would tolerate it if their bank were to charge negative interest rates. 44% would want to switch to a different bank, 28% would store their money physically, and 21% would invest their funds in different assets. In short, the abolition of cash would be a sine qua non condition if the interest rate wizards really wanted to go to town with negative rates. However, in that case they would be counting their chickens before they have hatched, as there would still be alternatives available, such as forms of money that have originated in the free market, like the crypto-currencies and gold.

d. Negative interest rates and gold

"If the store of value function of all major currencies is substantially undermined, as indeed it is by negative interest rates, then investors are going to have to look for a non-national currency alternative. Historically, gold and silver have most frequently served as reliable, stable international stores of value, protecting against devaluations and default generally."

John Butler

"Amazingly, people are paying Switzerland to warehouse their money for 10 years…That makes gold a high-yielder, because it yields zero."
Jeff Gundlach

Negative interest rates represent a never before seen dimension of monetary policy. We believe their effect on the gold price has to be assessed as clearly positive. Overall prosperity will by contrast suffer in the long term, as negative interest rates undermine traditional incentive structures which form the basis of wealth creation, and are distorting the capital structure in the process. Rising inflation, lower productivity, greater volatility and uncertainty in financial markets are consequences to be feared. Gold is likely to be a tower of strength in this situation. We list the most important arguments for this below:

1. ***Negative interest rates reduce the opportunity cost of holding gold***

Negative interest rates shrink the pool of attractive investment alternatives, which increases the attractiveness of gold. Particularly in the current low interest rate environment, gold is increasingly interesting for central banks as well. Thus they purchased 336 tons of gold in the second half of 2015 alone. The World Gold Council moreover estimates the monthly return of gold to be significantly higher in a negative interest rate environment than in an environment of moderate, or high real interest rates.

	Real Interest Environment		
	Low (<0%)	Moderate (0-4%)	High (>4%)
Monthly yield	1.4%	0.5%	-0.7%
Standard deviation	0.5%	0.3%	0.7%

Source: World Gold Council, Incrementum AG

2. ***Negative interest rates erode confidence in paper currencies and central bank policy***

Based on the insights of the Austrian School of Economics, we regard the consequences of negative interest rate policies as fatal. A distorted production structure will gradually bring about a decrease in real productivity. Asset prices continue to be boosted concurrently, resulting in financial boom-bust cycles which destabilize the financial system and will eventually lead to bankruptcies and rescue operations. The currency's store of value function will be undermined ever further. Eventually the point could be reached when citizens lose confidence in paper money and consumer goods prices begin to take off. **At that juncture an allocation to gold will be highly advantageous.**

3. ***Negative interest rates increase uncertainty and volatility in the markets and lead to an interventionist spiral***

Interest is a price ratio, and fixing interest rates is therefore akin to price controls. Given that interest is not just any price, but the price of credit and with that the lifeblood of the economy, it is all the more devastating that its fate is in the hands of central planners. The fact that negative interest rates appear necessary indicates that the economy has already suffered considerable damage as a result of previous interventions.

This confirms an insight shared by many Austrian economists: namely that one intervention invariably leads to another. The production structure and fundamental incentive structures are distorted – markets barely react to fundamental data anymore, but are highly sensitive to all sorts of monetary policy decisions. In view of the increasingly messy situation of the monetary system, in which ideas which were previously considered crazy (such as negative interest rates or helicopter money) can suddenly be regarded as being without alternative, is makes more sense than ever to stand with (at least) one leg on solid ground outside of the system.

Conclusion

We believe that NIRP creates a completely new environment for investment decisions. Since it cannot be expected that central banks will raise rates again anytime soon, negative interest rates are likely to become a persistent phenomenon, which will have an extraordinarily positive effect on gold. **Demand for gold is likely to increase particularly among central banks and institutional investors. Pension funds and insurance companies, which normally invest a large share of their portfolios in bonds, will have to fundamentally rethink their investment policies. Gold should play a major role in this context.**

e. The fatal long-term consequences of negative interest rate policy

Zero and negative interest rates have an effect akin to the effect that laxatives have on constipation: In the short term, everything appears to work well again, but as soon as the (economic) organism has become used to them, it becomes dependent on artificially created liquidity and is further away than ever from becoming truly healthy.

"Money is one of the most important social technologies in the history of the world, almost as important as language. Money is supposed to mean something. It is supposed to be the metric by which we measure economic value."
Simon Black

We have frequently discussed the negative long-term consequences of low interest rate policies in recent years. If one looks at the situation more closely, it becomes clear that the underlying problems couldn't be resolved by global zero interest rate policies, and that instead the market's natural selection processes have been undermined. **Governments, financial institutions, entrepreneurs and consumers that should actually be in bankruptcy are kept on artificial life support. As these consequences are devastating and can hardly be avoided, because the monetary**

system has become hopelessly entangled in the low interest rate trap, we want to focus on the issue again in detail.

The role of interest in the valuation of assets

"Holders of financial assets had a great run riding the 35-year wave of declining rates and rising asset values. The return trip won't be nearly as much fun."
Simon Mikhailovich

The rate of interest at which money can be invested is the basis for the valuation of all financial assets. Every form of investment involves spending money in the present in exchange for receiving an uncertain return in the future. Since investors have the choice of investing their funds at the prevailing interest rate at relatively low risk instead of buying risky assets, future returns have to be discounted by the interest rate. Thus investments have to be valued in relation to market interest rates. The discounted cash flow model calculates the net present value of investments based on the sum of all discounted future costs and returns. It is therefore in the nature of financial mathematics that a seemingly small change in interest rates will go hand in hand with large effects on the valuation of financial assets – especially in the case of long-term investments.

Consequences for securities

More than 30% of all government bonds (approx. USD 8 trillion) are in the meantime trading at negative yields to maturity, while 40% are trading at yields of less than 1%. Adjusted for inflation, the figures are even more dramatic: 51% of all government bonds valued at a total of USD 15 trillion exhibit negative real yields and only 16% of all bonds offer a real yield higher than 1%.[78]

Should serious concerns about inflation rear their head in coming years in the current interest rate environment – which we expect – bond investors who buy now or have already bought will have made a bad deal indeed. And should inflation actually begin to gallop, the consequences for banks, insurers, pension funds and particularly their clients will be devastating.

This points undoubtedly to massive overvaluation of these securities. **At the same time most market participants – in line with portfolio theory as it continues to be taught – regard these securities as *risk-free*.**

"Safety' is a tricky and paradoxical concept. The safe assets are often the ones that people regard as hopelessly risky."
Jim Grant

The low level of interest rates since the financial crisis has in the meantime boosted both bond and stock markets enormously and has prevented a downward correction. **A return to the level of interest rates that prevailed prior to the crisis would bring the markets to their knees purely from the perspective of mathematical finance – due to the difference in interest rate levels, stock markets could quite possibly slump by 50%**. Bond markets would also be strongly affected by a normalization of interest rates. 10-year Treasury notes had a yield of 5% prior to the crisis, while it currently stands at a mere 1.65%. Returning to a rate of 5% would entail a price decline of approximately 30% for 10-year Treasury notes.[79]

Consequences for debtors

Rating agency Standard & Poor's (S&P) has calculated that budget deficits in the euro area would on average be 1-2% of GDP higher if the average level of interest rates prevailing between 2001 – 2008 were applicable today. Germany would have a deficit of 1.5% of GDP instead of

[78] See: "Market Update: Gold in a world of negative interest rates", World Gold Council, March 31, 2016
[79] See: Mikhailovich, Simon: "Central banks are trapped by the math", Tocqueville Bullion Reserve, March 22, 2016

a slight surplus, the deficit in France would amount to approximately 5.5% (instead of 3.5%), in Spain to approximately 7% (instead of 5%), in Italy to approximately 4.5% (instead of 2.5%) and in the Netherlands to approximately 4% (instead of 2%). The deficits of the four largest economies of the EU behind Germany would therefore exceed the deficit threshold of 3% of GDP prescribed by the Maastricht treaty.

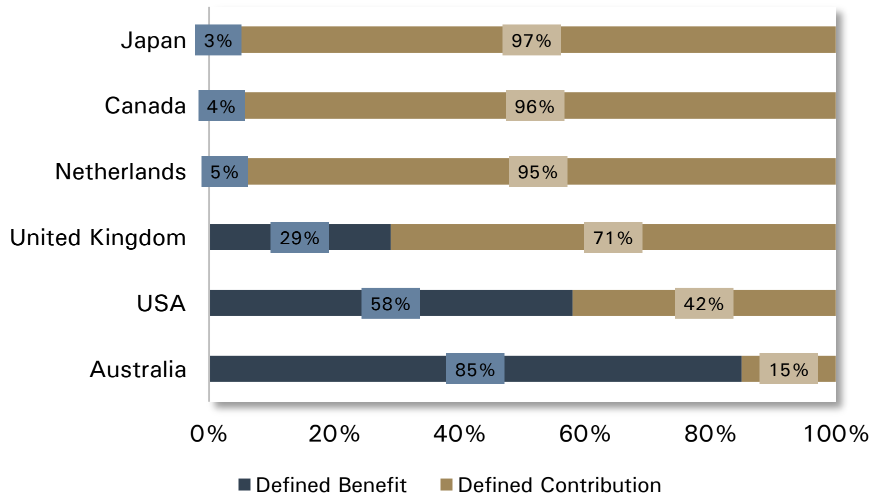
"When nothing happens for a long time, people begin to assume that nothing ever happens. But something always happens in the end."
Steve Lagavulin

Moreover, due to low interest rates and the high degree of marginability of sovereign bonds, more and more leverage is employed in these investments. So-called "risk parity" strategies, which have become highly popular in recent years, have inter alia taken advantage of this. **However, bonds are asymmetric assets**: Investors cannot receive more than the interest payments and the principal amount upon redemption – the maximum return is capped, while the risk of loss is not. Furthermore, the lower yields are, the greater interest rate risk becomes. **The potential for losses in the event of a rapid rise to a higher (once considered normal) level of interest rates is therefore enormous (particularly for assets widely considered to be perfectly safe)**.

Consequences for funded retirement insurance plans

The population is not only affected by the low interest rate policy because almost no interest is paid on savings deposits anymore. Similar to investments, funded retirement systems also depend largely on the interest return that can be achieved on paid-in capital. Since both pension contributions and payouts are performed over long time periods, it is of crucial importance at what rate they are discounted. Among funded retirement insurance plans one distinguishes between defined contribution and defined benefit plans. In a **defined benefit plan** the insurer promises to pay a specific amount as a pension to the policyholder once he retires. *The portfolio risk is borne by the insurance company.* In the case of a **defined contribution plan**, the height of the policyholder's pension contributions is agreed upon in advance. The pension payments depend on the performance of the portfolio. The *risk is therefore borne by the insured*, who as a rule has little chance to hedge against low interest rates.

Defined Benefit vs. Defined Contribution plans in selected countries



Source: Towers Watson, Incrementum AG

"We have lost the ability to self-regulate, at all levels of society."
Peter Whybrow

If e.g. a 30 year old enrolled in a defined contribution plan is only able to achieve a return of 4.5% from a portfolio of stocks and bonds compared to a return of 6.5% that used to be common in the past, he must either work for 7 years longer in order to receive the same pension, or must double his contribution (one needs to keep in mind here that an average return of 4.5% is actually an optimistic assumption in view of the growth prospects of developed countries). Defined benefit plans are already facing great difficulties. For example, around 90% of all government pension plans in the US are currently underfunded. The aggregate funding gap amounts to USD 1.2 trillion and therefore represents a great risk to US tax payers.[80]

Additional collateral damage of zero and low interest rate policies

- **Focus on short term profits**: Artificially suppressed interest rates encourage consumption in the present and lead to a "tyranny of instant gratification". Capital is gradually consumed, i.e., present prosperity is funded to the detriment of future prosperity.
- **"Consumption Burnout"**: Due to the lack of incentives to save, the saving culture is gradually undermined, and increasingly replaced by debt-financed compulsive consumption. This leads to an increasing loss of independence and a modern form of debt slavery.
- **The structure of financial markets is weakened**: Incautious behavior is promoted (moral hazard). Financial institutions have by now become so large, powerful and important that it has even become difficult for governments to rescue them. This is also known as the "deadly embrace" - in an extreme crisis situation, bank insolvencies will trigger government insolvencies as well.
- **Credit becomes more expensive**: stress in the banking system is rising, as interest margins decrease and the profitability of banks suffers. As a result, banks are trying to pass the costs of negative interest rates on to their customers. So far the taboo of imposing negative rates on deposits hasn't been broken yet due to fear of "grandma's mattress". However, loans have in some cases become more expensive in order to preserve interest margins at least to some degree.
- **Creation of zombie banks**: Low interest rates prevent the healthy process of creative destruction. Banks are able to roll over potentially non-performing loans almost endlessly, which lowers their impairment requirements. To become "too big to fail" may be a desirable goal for an individual banking institution, but for the economy as a whole it is a catastrophe.
- **The interdependence and fragility of financial markets increases strongly**: For the long term health of financial markets, systemic variety should receive more attention, as homogeneity always leads to an increase in fragility.
- Andreas Tögel highlights a side effect that is rarely discussed: the increase in general uncertainty leads to a conspicuous ***"uglification" of architecture***. Those whose time preference increases due to rising instability attach little importance to (visual) quality. As all assets have to be held in as liquid a form as possible, beautiful (and commensurately expensive) architecture stands in the way of this objective.[81]

[80] See: "QE and ultra-low interest rates: Distributional effects and risk", *Discussion Paper*, McKinsey Global Institute, November 2013
[81] See: Tögel, Andreas: "Die Kultur der Inflation", mises.org, September 18, 2015

- **Increasing dependence on other central banks**: In an environment of low interest rates on a global scale, an individual central bank can hardly return to normal monetary policy, as this will result in significant appreciation of its home currency, which is feared to have harsh economic consequences.
- **Renewed bubbles in real estate, stocks, objects of art, etc.**: Investors flee by necessity into assets with risk profiles they would never consider under a normal interest rate regime.
- **Entrepreneurs are misled by the falsified interest rate signal**: Ludwig von Mises offered the following apt comparison: *The whole entrepreneurial class is, as it were, in the position of a master-builder whose task it is to erect a building out of a limited supply of building materials. If this man overestimates the quantity of the available supply, he drafts a plan for the execution of which the means at his disposal are not sufficient. He oversizes the groundwork and the foundations and only discovers later in the progress of the construction that he lacks the material needed for the completion of the structure. It is obvious that our master-builder's fault was not overinvestment, but an inappropriate employment of the means at his disposal.*[82]

Conclusion:

"If you think as I do that this is the beginning of the end for the Golden Age of the Central Banker (or at least the end of the beginning), gold is pretty interesting here."
Ben Hunt

The current zero interest rate policy leads to numerous negative consequences and false incentives. Due to the importance of interest rates for the valuation of assets (discounted cash flow model), changes in interest rates have a sizable effect on the trend in stock and bond markets. In our opinion, ZIRP and NIRP are leading to the gradual ruin of pension funds and insurance companies.

Asset prices that have been artificially inflated by zero interest rates have raised the sensitivity of financial markets with respect to rising rates even further since the crisis. Central banks are caught in a lose-lose situation: Both keeping the zero interest policy in place, as well as implementing rate hikes represents considerable risk. The still outstanding adjustment of asset prices harbors the potential to become a severe confidence crisis. The point at which confidence will begin to crumble is difficult to forecast. **We are strongly convinced that gold represents a sensible hedge against such crises of confidence.**

[82] See: von Mises, Ludwig: *Nationalökonomie: Theorie Des Handelns und Wirthschaftens* [*Human Action*], Wirtschaft und Finanzen, Genf, 1940, p. 510 – Special thanks to Michael Ladwig and his wonderful book "Ludwig von Mises – Ein Lexikon: Von A wie Anarchismus bis Z wie Zwang"

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6. FINANCIAL REPRESSION: WHEN THE GRASPING HAND OF THE STATE RUNS RAMPANT

"Unfortunately a highly indebted country can stand with its back to the financial abyss unnoticed for many years before fate and circumstances trigger a crisis of confidence which leads to its downfall"
Carmen Reinhart and Kenneth Rogoff, *This time is Different*

"Too many analysts wear their free-market hats when they should be putting on their government hats and thinking like desperate bureaucrats. In the minds of government officials, the continuity of government power comes first and individual wealth takes a backseat."
Jim Rickards

The Austrian School's realism contains the empirical insight that most investors completely overlook the greatest threats to their wealth. Neither price declines, nor bad timing, a wrong portfolio composition, or excessive risk have led to the greatest losses of wealth; the generations preceding us and those that came before them haven't lost their savings solely due to investment mistakes. The greatest threat to private wealth has historically always been the agency of institutionalized violence which for the past several centuries has been referred to as the State. This observation is not the result of sullen ideological enmity toward the State, but of the attentive study of history. Those who don't want to face this reality can't be helped by even the best investment advice. Particularly the last century contains bitter lessons in this respect. **As a rule, the State reacts with financial repression to the corrective pressure that invariably follows on the heels of a debt-financed bubble economy. Understanding the incentives behind this and the associated dynamics is essential for every investor.** [83]

a. Financial repression – the supposed solution to the debt crisis?

"It is unbelievable how clever and inventive people are to evade the ultimate decision."[84]

Søren Kierkegaard

The topic of financial repression is so crucial in the context of the global monetary system and gold that we always discuss it extensively in the framework of our gold studies. The concept was introduced in 1973 by economists Shaw and McKinnon, who defined it as **government regulation of the financial markets that diverts funds from the private sector to the State.**

The goal of financial repression is to reduce the real value of government debt and lower the government's financing costs below the level that would pertain under purely competitive conditions.[85] Instruments to effect this redistribution consist nowadays of taxes, monetary policy measures and rigid laws that help with implementing this transfer of wealth in a covert manner. This is also referred to as a "creeping loss of savings" or "creeping expropriation".

[83] See: Taghizadegan, Rahim, Ronald-Peter Stöferle, Mark Valek, and Heinz Blasnik: *Austrian School for Investors – Austrian Investing between Inflation and deflation*, mises.at, 2015
[84] Own translation from German [*Es ist nicht zu glauben, wie schlau und erfinderisch die Menschen sind, um der letzten Entscheidung zu entgehen*].
[85] See: Homburg, Stefan, Bernhard Herz, Alexander Erler, Thomas Mayer, Arne Heise, and Ulrike Neyer: "Finanzielle Repression – ein Instrument zur Bewältigung der Krisenfolgen?" ("Financial Repression – an Instrument to Overcome the Consequences of the Crisis?"), *Wirtschaftsdienst*, October 2013 (93), pp. 731-750

Saving is increasingly punished, in spite of the fact that savings are indispensable for capital formation and sustainable growth, particularly in times of crisis. In light of the ongoing sovereign debt crisis in Europe and elsewhere, both the implementation of a coercive monetary command economy as well as a further strangling of the economy thus have to be expected. In the following section we will analyze in detail what shape such measures are taking or could be taking.

The two major pillars of financial repression

1. *Low interest rate policy*

"A nickel ain't worth a dime anymore."
Yogi Berra

Among other things by means of the systematic purchase of government bonds (which as such already represents impermissible government financing!) monetary authorities are artificially suppressing the level of interest rates. If the level of interest rates stands below the rate of price inflation, real interest rates are negative and the real value of outstanding debt declines.

"Cannot people realize how large an income is thrift?"
Cicero

What is a considered a perpetuum mobile of financing by some, is in reality nothing but shifting the costs unto others: namely savers. Small savers are particularly affected by this, as they have less leeway to redeploy their assets. They are also impacted as the beneficiaries of life insurance policies and government pension funds, the business models of which are undermined by low interest rates. People who have worked toward a secure retirement their whole life run the risk of losing most of their wealth.

2. *Systematic preferential treatment of government bonds*

"*Successful financial repression requires a widespread belief that conventional government bonds are safe*."
Peter Warburton

The second major pillar of financial repression includes measures that push the financial industry to **continue to buy government bonds in spite of low yields,** in order to secure future government financing. This is done through regulations that systematically favor government bonds over other securities. Examples of this are the **Basel III** regulations for banks and the **Solvency II** regulations for insurance companies. These stipulate that no capital has to be set aside to support government bond holdings because – as absurd as this may sound to any observer with even a modicum of common sense – they are considered absolutely safe. This provides government bonds with a competitive advantage relative to mortgage loans, loans to SMEs, or equities, which are subject to remarkably strict capital requirements. The same applies to the Basel III liquidity regulations, which state that banks have to hold a certain part of their assets in highly liquid form. In contrast to corporate bonds or stocks, government bonds are among these liquid assets.

"The last duty of a central banker is to tell the public the truth."
Alan Blinder, former Federal Reserve Board ViceChairman

This systematic preferential treatment of government bonds secures a steady flow of funding for government budgets. In this way, life insurance policy holders, savers paying into state-subsidized private pension supplement plans (so called Riester pensions in Germany), or beneficiaries of corporate pension insurance plans are indirectly investing primarily in government bonds – in most cases without even being aware of this or of the potential consequences.[86]

[86] See: Homburg, Stefan, Bernhard Herz, Alexander Erler, Thomas Mayer, Arne Heise, and Ulrike Neyer: "Finanzielle Repression – ein Instrument zur Bewältigung der Krisenfolgen?" ("Financial Repression – an Instrument to Overcome the Consequences of the Crisis?"), *Wirtschaftsdienst*, October 2013 (93), pp. 731-750

b. The war against cash

„Some observers are concerned about what they call „the war on cash". Don't worry – the war on cash is over and the government won."
Jim Rickards

Will a cash ban be introduced in the foreseeable future? For the time being there is not much reason to worry about this yet, but advocates of a cashless society are slowly feeling their way. After our extensive discussion of the topic last year, it has continued to seep into public discourse, and is beginning to take concrete shape in the case of the repeal of the €500 banknote.

German magazine *Der Spiegel* reported in June 2010 already how lobbyists in Sweden fought for a cash ban. In the forefront was bank union official Maria Löök, who argued that a cash ban would nip bank robberies in the bud. The logic behind this was quite simple: If there is no cash, it can no longer be stolen from banks or from other retail businesses.[87] Neither the fact that once criminals no longer had the opportunity to rob cash, they would simply shift their focus to other easily transportable valuables, nor the opposition of small entrepreneurs who were unable to afford the investments needed to enable cashless payments were mentioned.

At the time the demand to ban cash was unable to gather much steam. During and after the Davos World Economic Forum Meeting in 2016, countless statements by the detractors of cash could be heard making the rounds again though:

- On January 20, John Cryan, the CEO of Deutsche Bank, predicted that within a decade, cash would cease to exist.
- Two days later Norway's largest bank DNB demanded the abolition of cash.
- One week later an article in Bloomberg explained how to achieve a cashless future and why this would be desirable. [88]

Proponents of a cash ban are conspicuously often employed in the banking sector or in other sectors that are profiting from the processing of cashless payments.[89] Criminal activity continues to be an often cited justification intended to make the idea palatable to the population - as has recently been the case when the 500 euro banknote was abolished. However, in this case robberies are no longer at the center of the argument. Instead, everyone paying with cash is put under general suspicion in the sense of "someone who pays with cash has something to hide!" Larry Summers, one of the most prominent cash opponents, also argues that the abolition of cash currency would help to put criminals out of business, and points to a working paper by Peter Sands in this context. However, if one looks closely at the study, one can find the following sheepish acknowledgment:

"[T]here is scant empirical evidence of the impact of eliminating high denomination notes."

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[87] See: Reise, Niels: "Kampf um die schwedische Krone: Böses Bargeld" (*"Battle for Swedish Krona: Evil Cash"*), *Der Spiegel*, June 03, 2010
[88] See: "Bring On the Cashless Future", Bloomberg.com, January 31, 2016
[89] For instance, the "Better-Than-Cash-Alliance", a lobby group consisting of companies from the financial service and data sector, which is campaigning for the abolition of cash.

There are of course additional arguments against cash:

- **Costs:** Printing and minting of money allegedly uses up valuable resources. Distribution of new money and transporting existing money are also expensive. Digital money could be transferred more quickly and would help with cutting transportation costs.
- **Cash is a medium spreading germs**: As we already mentioned in our last report, there is a study that asserts that pathogens are spread through banknotes (the study was funded by the completely "neutral and disinterested" credit card company Mastercard).
- **Impediment of corruption, funding of terrorism, money laundering and tax evasion:** In order to hamper these activities as an initial step without having to abolish cash altogether, a gradual process is pursued. Thus there are already caps on cash payments in many EU countries,[90] and should criminals somehow fail to comply with these regulations in their illegal transactions, then their suitcases of money are at least going to be made heavier through the already mentioned abolition of the 500 euro banknote.
- **Closing the emergency exit**: Due to by now microscopic minimum reserve requirements, banks are in a permanent state of latent insolvency. Deposits are the basis of the fractionally reserved and massively leveraged credit pyramid. A bank run as a result of a sudden loss of confidence would quickly lead to the implosion of this credit pyramid. According to Henning Lindhoff, a comprehensive ban on cash is therefore the only effective means of the "junta of fiat money jugglers" to close all exits from the fiat money system.[91]
- **Leeway for the imposition of negative interest rates**: In the section above called *"Central bank limbo: How far can interest rates fall?"* we already mentioned that the imposition of negative interest rates is probably the most important reason for the abolition of cash. The abolition of the 500 euro banknote as a first step has made physical storage of cash reserves more expensive for euro zone banks, which makes it possible for the ECB to push the interest rate on its deposit facility even deeper into negative territory. Keynesian central bankers would however regard it as vastly more effective if penalty rates were imposed on normal savers as well. Unfortunately most of these people have amounts of money at their disposal that could easily be stored in their own homes. A commercial bank burdening its customers with negative rates would probably have to expect a bank run in short order. Thus an effective implementation of negative interest rates would require a comprehensive cash ban affecting all banknotes.

What would the consequences of a cash ban be?

In our opinion the consequences would be devastating. The ECB would be just as unable to achieve its goals with even lower interest rates as with any other interest rate that is not in line with market conditions. All it can achieve with its approach is to buy time and in the process expropriate savers and pension funds.

The fact that many economists simply ignore the effects on privacy shows how important it is to employ an interdisciplinary approach in the evaluation

[90] See also: "The war against cash", "In Gold we Trust 2015"
[91] See: Lindhoff, Henning: "Illegales gesetzliches Zahlungsmittel" (*"Illegal legal tender"*), Henning Lindhoff, *eigentümlich frei*, March 26, 2015

of such policy measures. **The all-encompassing surveillance that would result from a ban of cash should be seen as a bone-chilling prospect by everybody**. The assumption that it would be nothing to worry about because normal citizens have nothing to hide is foolhardy. The onus of proof with respect to the appropriateness of the invasion of privacy must always be with the invader and not vice versa. The oppressive powers of authoritarian states would be increased enormously by such a measure. If a citizen should fall from grace, one could simply shut down his account and destroy him economically.

Conclusion:

"The natural remedies, if the credit-sickness be far advanced, will always include a redistribution of wealth: the further it is postponed, the more violent it will be. Every collapse of a credit expansion is a bankruptcy, and the magnitude of the bankruptcy will be proportionate to the magnitude of the debt debauch."
Freeman Tilden (1936)

The abolition of cash would probably be the biggest intrusion into privacy and economic life experienced by Western countries in a very long time. Resistance against this plan should however not be underestimated, as numerous initiatives in Europe are already testifying to.

We believe that a creeping abolition of cash is not improbable. Using the salami tactics proposed by e.g. Kenneth Rogoff and Willem Buiter, large denomination banknotes would be abolished initially, until only 20 euro or 20 dollar banknotes are left. The motives of individual advocates of a cash ban vary with their respective personal interests. Whether the reason is the enforcement of a monetary policy that is doomed to fail, total surveillance, or personal financial advantage – it is absolutely certain that such a policy would not be in the public interest.

Savers need to be aware that a ban on cash would go hand in hand with negative interest rates being passed on by commercial banks. Gold could regain a great deal of monetary importance under such circumstances.

c. Debt haircut ahead?

Government defaults in industrialized nations have become rare since the end of World War II. In light of the indebtedness of developed nations, a debt haircut has in our opinion by now become a scenario one must seriously consider. Relative to tax revenues the level of US debt stands at 340%, that of Germany at 179% and that of Japan at a staggering 685%. For purposes of illustration: in order to pay back its debt, Japan would have to post an annual budget surplus of 5% over the next 137 years. The orderly repayment of Japans debt appears as realistic as the Republic of Fiji winning the world soccer championship.

Ways out of over-indebtedness: Inflation or default

"It has been well and often said that only two types of "paper" money have ever existed in history – those that are already worthless and those that are going to be."
Bill Buckler

How states handle their over-indebtedness depends on who holds their debt and in which currency it is denominated. Historically, debt crises were often dealt with through expansion of the money supply by either printing banknotes or debasing the nation's coinage. For instance, during the Coalition Wars around 1800, Austria had amassed vast government debt. Austria's first paper money was also introduced in this time period, the so-called "Banco-Zettel", which was printed with abandon, leading within a few years to an increase in the money supply from 35 million to 337 million guilders. **Obtaining debt relief via the printing press is always an attractive method for a government that is indebted in its own currency.**

However, if a state's debt is denominated in a foreign currency, expanding the money supply will merely have the effect of a hidden tax. In this case a debt default, i.e., an agreement with creditors regarding partial or even complete debt forgiveness becomes an attractive option for the state concerned. **The victims are always the savers who have, either recklessly or out of necessity, lent their money to the government.**

The history books are brimming with accounts of such measures. Already in Mesopotamia there were so-called "jubilees" in regular intervals of 30 years, on occasion of which all debts were canceled in one fell swoop. The interval depended on the time it took for Saturn to complete an orbit around the sun according to the calculations made at the time. Then all clay tablets on which debts and claims were inscribed were destroyed and people were released from debt bondage.

Since 1956, there exists an informal committee in the form of the Paris Club, where representatives of creditor countries meet for consultations regarding debt relief in favor of debtor countries. According to its own statements, the Paris Club has to date made altogether 433 agreements with 90 different debtor countries, granting a total volume of debt relief in the amount of 583 billion US dollars. Since 1979 there is also the London Club, which is modeled after the Paris Club, and is an informal group of private banks pursuing the same goal as its counterpart in Paris with respect to private government creditors.

What should be expected?

In principle, inflation is in most cases the preferred method of governments to get to grips with their debt. **It is therefore to be expected that both for Japan and the US inflation will be a more likely scenario than a debt default.** Not least in light of the fact that there have been desperate efforts to generate inflation over the past several years and the first signs of "success" are finally coming into view.

"Rather go to bed supperless, than rise in debt."
Benjamin Franklin

While debts in the euro zone are denominated in euro, the monetary policy decision-making process is considerably more complicated than e.g. in the US, as the monetary policy decisions of the ECB council have to be made by a simple majority. As a result, the decisions are not necessarily favorable to the fiscal policies of individual countries. **Debt haircuts are therefore a significantly more likely option for the euro area –** Greece could serve as a precedent.

Conclusion:
A debt default by a large industrialized nation is in our opinion rather unlikely, as the deflationary consequences both for banks and governments would be too dramatic in today's interconnected financial system. The only politically palatable way is a flight forward: an aggressive reflation of the economy via rising nominal prices.

d. Historical bans on gold ownership

„When you recall that one of the first moves by Lenin, Mussolini, and Hitler was to outlaw individual ownership in gold, you begin to sense that there may be some connection between money, redeemable in gold, and the rare prize known as human liberty."

Howard Buffett

"The most reliable way to forecast the future is to try to understand the present."
John Naisbitt

In times of monetary experiments, gold represents essential insurance. Gold is a safe haven currency, i.e., it defends one's personal wealth when legal tender is no longer capable of rendering this service. Governments that destabilize their own currencies have always been aware of gold's particular significance in this context. In order to prevent capital flight into gold and the associated further destabilization of their currency, they have banned gold ownership time and again in the course of history. In the framework of the audacious monetary experiments taking place nowadays, potential gold bans due to its safe haven status should be on one's radar screen as well.

Gold buyers need to know what could potentially be in store for them, should governments which regard safe haven currencies as a thorn in their side once again decide to restrict access to them. For this reason we are taking a look at historical precedents of gold bans.

Roosevelt's ban of gold ownership

In the course of the Great Depression, president Franklin Delano Roosevelt inter alia signed the *Emergency Banking Act* of March 9, 1933. As an amendment of the *Trading with the Enemy Act* of 1917, which prohibited trade between US citizens and declared enemies of the state, the Emergency Banking Act **empowered the government to confiscate all gold coins, gold bars and gold certificates held by the population, under the precondition that this was necessary for the protection of the US currency system.**[92] This precondition of course provided plenty of leeway in terms of its interpretation, and consequently citizens were asked just one month later already to hand their gold over to the US government. Compensation was set at the then prevailing fixed gold exchange rate of 20.67 USD per ounce.[93]

Due to the government's inflationary monetary policy, depreciation pressure on the dollar increased quite quickly, thus the gold price was raised via presidential decree to USD 35/oz. in 1934. At the time of the compulsory conversion many Americans accepted the new regulation without demur, as they believed that it would help to improve the economic situation and their money would therefore not be debased.

The penalties for illegal gold ownership were horrendous. There was either a fine of up to USD 10,000 (equivalent to approximately USD 190,000 today) or a jail term of up to ten years. In spite of this, the population is estimated to have delivered only around 30% of its gold holdings and the black market in gold flourished.[94]

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[92] See: "Das Goldverbot in den USA" (*"The prohibition of gold in the US"*), goldseiten.de,
[93] The prohibition did not apply to gold jewelry, ancient coins, gold for industrial purposes, arts and craft. Small amounts up to a value of USD 100 (about 5 ounces), the possession of gold was allowed as well.
[94] See: Grandt, Dr. Michael: "Keine Angst vor einem Goldverbot" (*"No fear of a prohibition of gold"*), pro aurum, February 07, 2013

As it was almost impossible to control all households to find out whether they were in possession of gold, holding it was relatively safe. Many US citizens moreover stored gold overseas, such as in Switzerland, or bought numismatic coins, which were exempted from the ban. **President Eisenhower subsequently expanded the ban on gold ownership to include gold held abroad and President John F. Kennedy tightened the noose even further. He prohibited the ownership and purchase of numismatic coins that were minted before 1933 as well. In addition, all gold coins stored by US citizens abroad had to be repatriated.** The rather flimsy pretext for this was that the government had to protect US citizens against counterfeits.

Other gold prohibitions in the 20th century took a roughly similar course, such as e.g. in the Weimar Republic in 1923, in France in 1936, in India in 1963 or in Great Britain in 1966. Not all gold bans were the result of misguided monetary policy. While the ban in the Weimar Republic was tied to the great inflation, in France the reason was capital flight in the wake of the election victory of socialist politician Leon Blum. In India the trigger for the gold ban was capital flight as well, in the wake of the Sino-Indian border war of 1962; in Great Britain it was connected to rising industrial gold demand and the associated increase in the scarcity of gold.

What happened prior to the 20th century? In antiquity and in the Middle Ages private gold ownership was often prohibited as well, such as e.g. between 1292 BC and 1186 BC in ancient Egypt. This privilege was reserved to pharaohs and priests, as they performed their religious duties as representatives of the gods.[95] In Sparta gold ownership was prohibited because the population was not supposed to take part in business life at all. In 404 BC gold ownership even became punishable by death and raids on homes were a daily occurrence.[96]

The ancient Romans under Julius Caesar were slightly more modern by comparison: An upper limit for gold ownership decreed in 49 BC can be seen as a reaction to "misguided interest rate policy". After Caesar suspended all interest payments, Romans started hoarding their money, which was of course not the decree's intention. The gold ban in the Chinese Empire was also closely tied to monetary policy errors. The Middle Kingdom created fiat money in 1273 already and in this context immediately prohibited gold ownership. Barely 15 years later, a currency reform was enacted in the wake of massive inflation. The intention of the ban was to keep Chinese citizens from saving their wealth with the help of gold.

However, in the context of these historic gold bans one should keep in mind that gold still had an official monetary role in most of these cases. The Bretton Woods system remained in force until 1973, and only thereafter the global monetary system's ties to gold were cut completely. **As gold no longer plays this important role, a gold ban is nowadays less important from the perspective of governments and therefore also less likely.** However, what is becoming ever more likely in view of governments' rising need for revenue is more taxation of gold trading. Governments certainly have the option to lower the attractiveness of investing in gold in this way.

[95] See: Akademie der Wissenschaften in Göttingen: *Nachrichten der Akademie der Wissenschaften in Göttingen aus dem Jahr 1961. Philologisch-Historische Klasse,* Commissionsverlag der Dieterich'schen Verlagsbuchhandlung, Göttingen 1961 (8), p. 170
[96] See: Bayerische Numismatische Gesellschaft: "Jahrbuch für Numismatik und Geldgeschichte"

Conclusion

“The desire of gold is not for gold. It is for the means of freedom.”
Ralph Waldo Emerson

Since gold has currently no official monetary role, a prohibition of gold ownership appears unlikely at this point in time. Repressive measures with respect to gold ownership and trading will only become more likely once the gold boom gains significant momentum and its impact broadens to the point of becoming a veritable gold rush. Such a development would naturally go hand in hand with a loss of confidence in paper currencies. In view of the fact that the gold market currently still resembles a discreet private event, such concerns appear premature.

If voices start to assert that “similar to cash, gold is nowadays used in financing criminal activity” or that gold “is damaging the economy”, alarm bells should ring. However, even in the event of a gold ban, it shouldn't be expected that governments would be able to confiscate all gold, as this would require conducting comprehensive and therefore uneconomic controls. If one wants to be on the safe side, one can purchase gold in forms that have traditionally often been exempted from bans, such as numismatic coins or smaller denominations.

e. The Fix is In – Gold Price Manipulation Exposed

“There are no markets anymore, just interventions.”
Chris Powell

“We looked into the abyss if the gold price rose further. Therefore at any price, at any cost, the central banks had to quell the gold price, manage it. It was very difficult to get the gold price under control but we have now succeeded. The US Fed was very active in getting the gold price down. So was the U.K.”
Eddie George, Governor Bank of England, September 1999

There is a fine line between intervention (in most cases government, resp. political intervention) and manipulation (with the more negative connotation of “exertion of influence”). The fact that central banks intervene massively in bond markets (e.g. via quantitative easing) and currencies (e.g. the Swiss franc or the renminbi) and that prices are at times steered to the decimal, is officially known and considered legitimate. **In many cases, the free price discovery process is therefore little but a myth.**

Given gold's safe haven characteristics, it is obvious that a rising gold price is signalling declining confidence in the financial and currency system. Similarly it seems self-evident that neither central banks nor politicians have any interest in seeing the gold price moving off the charts, which would raise doubts about the currency system even among the most blind and state-worshiping market participants. From this perspective the motives for “price management” seem clear and plausible. It would therefore be naïve to rule out interventions in the gold price discovery mechanism.

“These markets are all rigged, and I don’t say that critically. I just say that factually.”
Ed Yardeni

What most market participants once considered a crude goldbug conspiracy theory, reflecting dissatisfaction with the precious metal's price trend and sour grapes on account of missing the rally in the stock market, has now become a certainty: the precious metals markets, particularly gold and silver prices, were systematically manipulated by large banks. This was confirmed on April 13 2016, as Reuters reported that Deutsche Bank had reached a settlement in a court case over silver price manipulation.[97] One day later a similar announcement was made in the context of gold price manipulation. In both cases Deutsche Bank paid a fine and promised to help with exposing other banks involved in

[97] See: Pfaffenbach, Kai: “Deutsche Bank to settle U.S. silver price-fixing litigation”, *Reuters*, April 13, 2016

"Whether it's QE in the West or China's recent regulatory intervention in the aftermath of the bursting of its equity bubble, market manipulation has become global in scope."
Stephen Roach

the scheme, by disclosing instant messages and other electronic communications between the manipulators. [98] The other banks included in the complaint were the Bank of Nova Scotia, Barclay's, HSBC and Société Générale.

Anomalies in gold trading had been observed for quite some time. Primarily during the afternoon fix in London, disproportionate price declines tended to regularly occur in the past. This "phenomenon" was inter alia proved by Rosa Abrantes Metz and Albert Metz, who published a study which found indications of illegal collusion over prices since 2004. In this context it is quite astonishing that a five year long investigation by the US *Commodity Futures Trading Commission* (CFTC), which was concluded in 2013, failed to find any proof of silver market manipulation by large banks.

One should however not assume that gold and silver markets are entirely free of manipulation again following the Deutsche Bank settlements. The settlements refer only to manipulation of the gold and silver fixings. This seems however only the tip of the iceberg in terms of market manipulation – futures trading on the COMEX appears to be far more important in this context. [99]

Summary "Financial Repression":

"Along with encouraging borrowing, low and falling interest discourages savings. Isn't that perverse, to discourage saving? What happens when an entire society doesn't save?"
Keith Weiner

Financial repression is a historically continuous process. Once governments are no longer able to finance their expenses with the means at their disposal, they always avail themselves of the financial repression toolbox. In view of the intractability of today's situation, in which mountains of debt have long grown beyond the threshold of comprehensibility and structural deficits are obvious, savers have to be cautious.

What can investors do? First of all they should acknowledge that their wealth is under threat and obtain information on potential alternatives. Private currencies are interesting as investments, which are de facto outside the reach of financial repression measures. It is therefore to be expected that crypto-currencies like bitcoin, but also other private currencies backed by gold and silver, will boom in times of spiralling financial repression.

[98] See: "Deutsche Bank Admits It Rigged Gold Prices, Agrees To Expose Other Manipulators", Zerohedge.com, April 14, 2016
[99] See: "The Deutsche Bank Gold Manipulation Settlement is Meaningless", Valuewalk.com, April 30, 2016


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SILVER
Endeavour Silver Corp. is a mid-tier precious metals mining company that owns and operates three high-grade, underground, silver-gold mines in Mexico: the Guanaceví mine in Durango state, and the Bolañitos and El Cubo mines in Guanajuato state.
Since start-up in 2004, we have organically grown our mining operations to produce 11.4 million ounces of silver and equivalents in 2015. We are a low-cost silver producer, on track to reduce all-in sustaining costs for the fourth consecutive year in 2016.
Endeavour's growing discovery of high-grade silver-gold mineralization at the Terronera property in Jalisco state, combined with the recent acquisition of the fully permitted El Compas mine and plant in Zacatecas state, should facilitate our goal to become a premier senior producer in the silver mining sector. We find, build and operates quality silver mines in a sustainable way to create value for all stakeholders. We aim to make a positive difference in people's lives.
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7. GOLD IN THE CONTEXT OF PORTFOLIO DIVERSIFICATION

"It is a case of better having insurance and not needing it, than one day realizing that one needs it but doesn't have it."
Acting-man.com

As we have done in our previous studies[100], we want to analyze the advantages of gold in the context of portfolio diversification. Due to its unique characteristics, we are firmly convinced that gold – especially in the current environment – should be seen as an important portfolio component.

We believe that gold is not a replacement for investment in traditional securities such as stocks or bonds in a fiat money system, but is rather complementary to them. The correct way to look at a gold position in the framework of an investment portfolio is to regard it as a liquid, alternative cash position, which exhibits exchange rate risk relative to fiat money and possesses remarkable diversification characteristics. Numerous studies show that the addition of gold lowers a portfolio's volatility and therefore improves statistical portfolio characteristics. The reason for this is that gold's correlation with other asset classes is only 0.1 on average.[101]

In a crisis, the only thing that goes up is correlation

In the following we want to discuss the so-called Permanent Portfolio, which represents an investment concept that can close a gap in conservative investment strategies in times of interest-free risk, as it tends to generate stable real returns. Gold plays a prominent role in this portfolio.

In addition, we want to examine gold in light of a desirable characteristic, which Nassim Taleb has made the world aware of: namely, anti-fragility. Does gold actually have this characteristic? Is it possible to construct an anti-fragile portfolio with the help of gold?

Lastly we will also look at gold's opportunity costs, specifically with respect to real interest rates and the performance of equities.

a. A solution to the dilemma faced by investors: the Permanent Portfolio

"The portfolio's safety is assured by the contrasting qualities of the four investments - which ensure that any event that damages one investment should be good for one or more of the others. And no investment, even at its worst, can devastate the portfolio — no matter what surprises lurk around the corner — because no investment has more than 25% of your capital."
Harry Browne

After years of disinflation in consumer prices, most asset managers have significantly underweighted inflation-sensitive assets such as gold, commodities and mining stocks. In recent decades the credit and money supply expansion associated with the downtrend in interest rates has primarily affected asset prices. As discussed above, central banks continue to attempt to generate price inflation by any means necessary. **Sooner or later, these reflation efforts are bound to succeed and asset price inflation will spill over into consumer price inflation. Since consumer**

[100] See also: "Gold in the context of portfolio diversification", "In Gold we Trust 2015", and "The extraordinary portfolio characteristics of gold", "In Gold we Trust 2014" and so forth
[101] See: "Gold: A commodity like no other", *World Gold Council*, April 12, 2011

price inflation cannot be fine-tuned at will by central banks (as inter alia their failure to achieve their inflation targets in recent years demonstrates), an extended price inflation cycle could be in the offing.

What to do though? Many investment strategies that have worked well in recent decades appear ill-equipped for an increasingly unstable and possibly even stagflationary environment. Flooding markets with fresh money leads to new "water levels" being established, in which former safe haven assets might well drown one day. A paradigm change is therefore needed for conservative investment strategies in order to attain the following goals:

- the chance to achieve capital gains with moderate risk
- generation of real returns
- avoidance of large drawdowns

Below we want to present a tried and tested concept that makes it possible to achieve attractive long-term returns independent of the market environment, while averting large drawdowns: the Permanent Portfolio. The strategy was developed in the early 1970s by US investment analyst Harry Browne, who was also strongly influenced by the Austrian School.

The basic idea is to construct a diversified portfolio that is invested in four different asset classes in equal parts. These tend to correlate negatively with each other in different economic scenarios, which reduces volatility and makes it possible to generate stable long-term returns. **Shares of 25% each of the portfolio are allocated to gold, cash, stocks and bonds**.

The four different economic scenarios which this method intends to provide for are:

- **Inflationary growth** (favorable for stocks and gold)
- **Disinflationary growth** (favorable for stocks and bonds)
- **Deflationary stagnation** (favorable for cash and bonds)
- **Inflationary stagnation** (favorable for gold)

The following table shows in greater detail which economic environments affect the asset classes under consideration in a positive or negative manner.

Positive vs. negative environment for PP asset classes

Asset Class	Positive Environment	Negative Environment
Stocks	▸ Economic boom ▸ Rising investor confidence ▸ Monetary inflation drives asset prices	▸ Strongly increasing inflation rates ▸ Deflation ▸ Periods of great anxiety and loss of confidence
Bonds	▸ Economic downswing ▸ Falling interest rate environment ▸ (Slightly) deflationary environment	▸ Strongly rising inflation ▸ Increased credit risk ▸ Rising interest rates
Cash	▸ Strained credit environment ▸ Deflation ▸ Rising interest rates	▸ Strong inflation ▸ Economic boom
Gold	▸ Rising inflation rates ▸ Deflation ▸ Diminishing investor confidence	▸ Rising investor confidence ▸ Clearly positive (or rising) real interest rates

Source: Incrementum AG

"It is not our task to predict the future, but rather to be prepared for it."
Perikles

"One of the greatest pieces of economic wisdom is to know what you do not know."
John Kenneth Galbraith

The basic principle of the Permanent Portfolio approach is the humble – and very "Austrian" – insight that the future cannot be known. Investors should therefore diversify their capital in such a manner that they are equally well prepared for every possible economic environment (economic prosperity, recession, inflation, deflation).

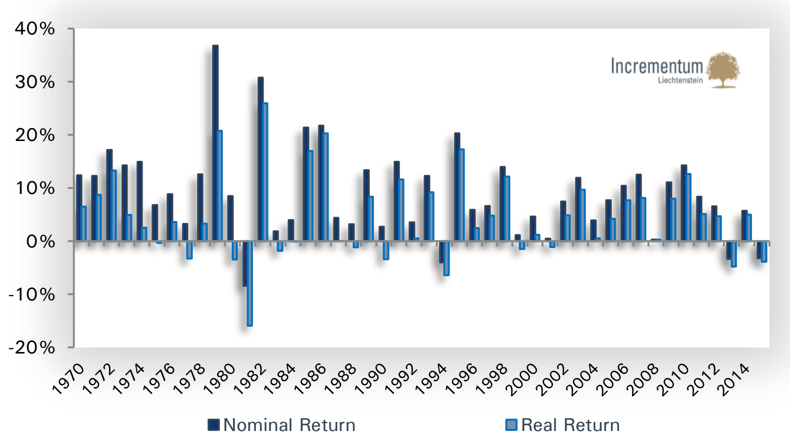
The combination of the four components of the Permanent Portfolio not only generates stable long term returns. **By making investors independent of forecasts, it also frees them of the prevailing "spiral of short-termism"**. The latter refers to the pressure put on professional investors, who as a rule act as agents managing other people's capital, to regularly report on their performance and have it measured against a benchmark. Reporting structures far too often tempt investors to simply join bandwagons in the markets in order to be able to consistently generate acceptable results relative to a benchmark, although plenty of evidence suggests that this is detrimental to long-term performance.[102]

By contrast, the Permanent Portfolio is constructed in a way that allows one to escape the pressures of the modern financial world to some extent. This is due to the strategy's requirement that the portfolio must be regularly rebalanced in order to maintain the 25% allocation for each investment class, as the relative weighting of the components will over time shift due to differences in their performance. As soon as an asset class represents a weighting of more than 35% or less than 15% of the portfolio, it is rebalanced to the 25% level. Specifically, a component representing 35% of the portfolio would be reduced until its weighting is back at 25%, and a component representing less than 15% would be built up again toward the 25% threshold. **The regular rebalancing of the portfolio ensures that one becomes immunized to a large extent against the influence of short-term fluctuations as well as the hysterical reactions of other market participants and the media.**

The strategy is well aligned with the anti-cyclical approach of Austrian Investing, whereas most market participants tend to buy when prices are rising and sell when they are falling. [103] **The relatively rare rebalancing is moreover based on the philosophy that maintaining the portfolio should involve as little cost and effort as possible.** There is no need to make specific timing decisions, and transaction costs, which are normally a significant drag on returns, are kept in check as well due to the low transaction frequency. **The following chart shows the nominal and real returns achieved by the Permanent Portfolio from 1970 to 2015.**

[102] See: Andreassen, Paul B.: "On the Social Psychology of the Stock Market: Aggregate Attributional Effects and the Regressiveness of Prediction", *Journal of Personality and Social Psychology*, 1987 (53), pp. 490-496
[103] The concepts takes the pattern of "mean reversion" into account. As markets tend to exaggerate, they need to correct over time.

Annual performance of the Permanent Portfolio, 1970 – 2015, nominal and real return



Source: irrationalexuberance.com, Federal Reserve St.Louis; Incrementum AG

A close look reveals three characteristics that are particularly conspicuous:[104]

1. **The portfolio has generated respectable nominal returns**. The average return of 9.1% per year is equivalent to that of investment portfolios which, as a rule, exhibit far greater volatility. As a matter of fact, the return is nearly identical to the 9.8% achieved by portfolios that are to 100% invested in equities – which achieve this return at the cost of far greater volatility.

2. **The portfolio has suffered no significant drawdowns**. The number of losing years is small. In addition, the losses posted in those years have been small. In its worst year (1981) the portfolio posted a nominal loss of 8.3%. In comparison to pure equity portfolios this is a quite moderate loss. Moreover, the loss was more than compensated for by the gain recorded in the subsequent year.

3. **A positive *real* return has been achieved in most years within the time period under consideration.** (Inflation-adjusted returns are extremely important in assessing and comparing investment strategies, a fact that is often overlooked.)

Conclusion:

"Predicting Rain Doesn't Count - Building the Ark Does."
Warren Buffett

In times when safe core investments are hard to find, the Permanent Portfolio stands out as a robust concept: It generates stable real returns in the long term without the risk of large drawdowns. Precisely because its individual components are fragile, the Permanent Portfolio is elastic and able to remain safely above the waterline in every market environment. **A few months ago Incrementum launched the first European fund that invests according to the principles of the Permanent Portfolio. In the US, funds that implement the strategy very successfully have already been active since 1982.**

[104] See: Taghizadegan, Rahim, Ronald-Peter Stöferle, Mark Valek, and Heinz Blasnik: *Austrian School for Investors – Austrian Investing between Inflation and deflation*, mises.at, 2015

b. Anti-fragile investing with gold?

"Some things benefit from shocks; they thrive and grow when exposed to volatility, randomness, disorder, and stressors and love adventure, risk, and uncertainty. […] Let us call it antifragile."
Nassim Taleb

In 2012 Nassim Nicholas Taleb published *"Antifragile: Things That Gain From Disorder"*, a book in which he presents a kind of "theory of everything". The German subtitle "*Instruction manual for a world we don't understand*" is suggestive of the paradoxical Socratic motto "I know that I know nothing" – an insight in terms of which Taleb believes himself to be ahead of the crowd of top economists, central bankers, politicians and financial market actors who are obsessed with feasibility mania and blind faith in predictability.

"What does not kill us makes us stronger."
Friedrich Nietzsche

However, Taleb wouldn't be Taleb if he were humbly despairing in the face of this insight regarding his own ignorance; instead he wants to become a guru in how to best handle it. **He shows how one can act successfully in light of this ignorance. To this end he has constructed a scheme that categorizes things either as "robust", "fragile" or – and this is Taleb's own ingredient – "anti-fragile".** It is clear what fragile and robust things are. The former break easily – they are vulnerable to exogenous shocks – while the latter are resilient and remain unchanged under the influence of different environments. **Anti-fragility is a characteristic of things which benefit from volatility, randomness and certain kind of stresses.**

Anti-fragility – a universal phenomenon

It is astonishing that Taleb had to invent a new term for a phenomenon that is ubiquitous. **All living/organic and complex systems are anti-fragile;** Anti-fragility is among other things the basis of evolution, the arts, democracy and capitalism. Training improves one's physical fitness, inventions are made by trial and error, taboos arouse a desire to break them, dialogue helps to work out one's own positions, "creative destruction" leads to new, more efficient economic structures, competition increases quality – in short: Certain types of stress have a positive effect.

These examples illustrate a property of anti-fragile systems: **Several of the components of a system have to be fragile in order to make the system as a whole anti-fragile**. Every plane crash allows one to draw conclusions, and air travel as a whole becomes safer as a result; the possibility of bankruptcies and loss of employment in a dynamic competitive economy makes the economy stronger than one with rigid labor legislation and systemically important companies that are not allowed to fail.

Is gold anti-fragile?

The anti-fragility theory is of course very interesting for investors and particularly for short sellers – especially as Taleb has distinguished himself spectacularly in this special field. It seems natural to think of gold in this context: Gold is after all *the* classical crisis currency, which does well when all other asset prices are plummeting. **Systemic stress – in the form of chaos, uncertainty, instability, unrest, volatility, etc. – is precisely the environment which gold needs to reach operating temperature. Is gold therefore an anti-fragile investment?**

As obvious as this question seems to be, Taleb astonishingly avoids it completely in his book. At the Strategas Research Macro Conference in New York in March 2013 he was asked directly about gold and stated that he once believed in its ability to function as a portfolio stabilizer, but had come to change his opinion in the meantime: *"It's too neat a narrative, gold"*.[105] Let us take this statement as the point of departure for a discussion of different aspects of gold:

Aspect 1: *The value of gold rests on its "trust capital"*

While Taleb's statement indicates that this trust is partly blind faith, which mainly informs the attitude of slightly spaced-out gold aficionados and thus represents a shaky foundation, it should be noted that **faith is a necessary precondition for every form of money**. The value of "reputation money" even depends entirely on whether its users expect that it will be accepted by other users.

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105 See: Santoli, Michael: "Gold Not Antifragile Enough for Black Swan Author", finance.yahoo.com, March 22, 2013

This not only applies to money though. In their book *"Der fiktive Staat"* (English: *"The Fictional State"*), Albrecht Korschorke and his colleagues argue that the entire State, and indeed every community and its institutions, are fictions. Nevertheless, they can be very real, stable and powerful entities:

The trust capital of paper money

Today's paper money, which as legal tender is closely tied to the narrative of the State, has a certain advantage – not least as it is backed by credit claims. However, it is precisely this backing of money by credit claims which appears to be leading to its downfall, as on the one hand, the expansion of credit, resp. credit claims, is approaching its limits on account of beleaguered banks and over-indebted borrowers, as a result of which the economy is stagnating; on the other hand, confidence can be lost rapidly if a part of these credit claims turns out to be nothing but hot air. **Trust in legal tender is therefore strongly tied to confidence in the system – which is facing a crucial test in times of never before seen over-indebtedness.**

"They are a complex of perceptions, which has functional character, as the entire reference frame of social addressing and authorization rests on it."[106]

The authors analyze the meaning of narratives, which are fundamentally important for these institutions, as the trust of the reference group rests on them:

*"Between the "soft" instruments of metaphors, narratives, and fictions on the one hand, and "hard" institutional arrangements on the other hand, exchanges in **both** directions are continually underway […] **societal organization […] is metaphorical imagery that has attained functionality."***[107]

In short, gold's narrative element, which Taleb takes exception to, is by no means a weakness. However, neither it is necessarily a strength, as narratives can lose their functional character or may not even be in possession of one in the first place. **With respect to this first aspect, it remains however impossible to come to a firm conclusion on whether gold is fragile, robust or anti-fragile**. A strong narrative is a precondition for trust and sound money. We therefore have to ask whether the narrative and the associated trust are strong. What is gold's trust capital based on?

Aspect 2: *In the past, gold was the most stable and enduring means of payment worldwide*

The "narrative" of gold enthusiasts includes the statement that gold was universally accepted as a means of payment in the past and served as a safe haven currency in times of crisis. Speaking to Congress in 1999, even Alan Greenspan, who was chairman of the Fed in that time, remarked:

"Gold still represents the ultimate form of payment in the world. […] Fiat money, in extremis, is accepted by nobody. Gold is always accepted."[108]

The following chart compares the annual performance data of gold and the S&P 500. An inverse relationship can be discerned. Moreover, in the six years in which the S&P's biggest losses were recorded, gold posted not only an excellent performance in relative terms, but in absolute terms as well; bull markets in US stocks by contrast tended to weigh on gold's price performance. However, it has to be pointed out that this inverse correlation is not perfect either: For instance, both gold and the S&P 500 Index rose between 2002 – 2007; occasionally there were also times when both declined concurrently. Gold recorded its biggest gain ever in 1979, a year in which the S&P 500 rose as well. **The statement "Gold benefits from**

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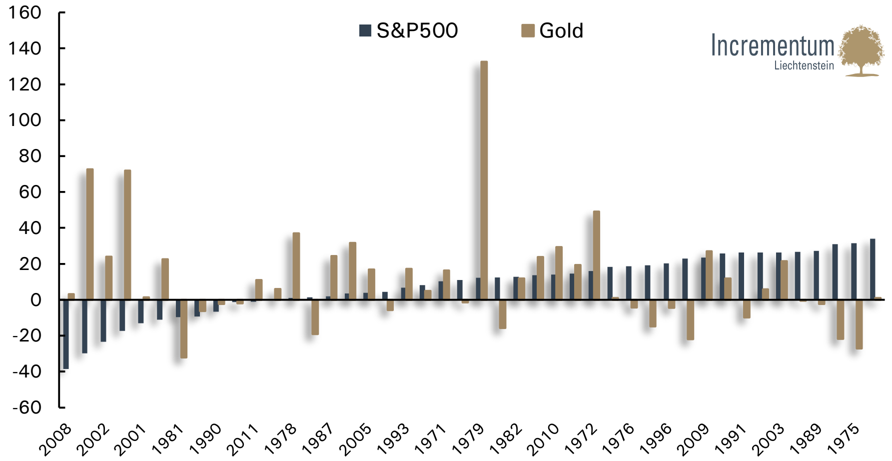
[106] See: Korschorke, Albrecht, Susanne Lüdemann, Thomas Frank und Ethel Matala de Mazza: *Der fiktive Staat: Konstruktionen des politischen Körpers in der Geschichte Europas*, Fischer Taschenbuch Verlag, Frankfurt am Main, 2007, p.11
[107] See: ibid. p.57
[108] Quoted in: Popescu, Dan: "The canary of the currency markets", goldbroker.com, December 14, 2015

stress and suffers from stress withdrawal" is therefore not always applicable – thus gold cannot be a textbook example of anti-fragility. However, within the period under consideration, times of *extreme* stress (incl. "tail risk events") were a sufficient condition for a rally in the gold price. This may be a hint that demand for gold becomes especially strong when the system is facing a fundamental threat – namely when doubts about the ability of counterparties to perform begin to arise.

Comparison of annual performance record, gold vs. S&P 500



Source: Federal Reserve St. Louis, Incrementum AG

However, Taleb would certainly not accept a mere reference to the past. Since the future is unpredictable, never before seen events could occur. So-called "black swans" can render forecasts which are based on historical patterns completely useless. However, one must also keep in mind that for the narrative of crisis-resistant gold, history is a factor that strengthens confidence in its monetary character. **Empirically we can however conclude in connection with aspect 2: Gold is <u>not a perfectly anti-fragile asset</u>, but in severe times of crisis in the past, it has exhibited <u>anti-fragile characteristics</u>.**

Aspect 3: *Gold is intrinsically stable/ durable*

Let us look at what the historical trust in gold is based on:

- **Physical durability:** Gold is resistant to air, humidity, most acids, caustic solutions, and solvents and as a result retains its physical attributes over time.
- **Stable total stock**: New gold can only be mined at great cost and effort and changes the size of the total stock only slightly, as gold isn't used up and all the gold ever mined therefore remains available (high stock-to-flow ratio)

With respect to aspect 3 it can be stated: Gold is <u>robust</u>. The fact that gold is durable and stable creates trust. This trust has so far ensured that gold was always highly valued and accepted as a medium of exchange. **Ultimately, this is precisely what is of greatest importance: namely, the value others attach to gold.** It seems therefore appropriate to take a closer look at the gold demand as well.

***Aspect 4**: The valuation of gold is multi-dimensional and allows for price fluctuations*

Industrial demand for gold barely plays a role, as a result of which price determination is mainly based on the metal's monetary characteristics. In other words, gold is primarily money. However, as we have pointed out previously, the gold market is susceptible to manipulation as well.

"Although gold and silver are not by nature money, money is by nature gold and silver."
Karl Marx, Das Kapital

The fact that central banks hold a large share of the global stock of gold as part of their strategic currency reserves, is on the one hand a positive signal for other gold holders: Even the upper echelons of the financial world have faith in gold as the ultimate insurance against risk (even if unofficially) and thus strengthen the narrative. On the other hand, this fact also politicizes the market to a notable extent. However, since central banks are holding gold as a strategic reserve inter alia in order to have greater negotiating power vis-à-vis other states in the event of a reorganization of the international monetary order, one shouldn't expect them to undertake coordinated interventions in order to suppress the gold price in times of crisis. Moreover, central banks hold only around 30% of the total global stock of gold – the majority of gold holders comprises countless decentralized actors who are dispersed across the world.

"Truly, the real black swan problem of stock market busts is not about a remote event that is considered unforeseeable; rather it is about a foreseeable event that is considered remote. The vast majority of market participants fail to expect what should be, in reality, perfectly expected events."
Mark Spitznagel

In addition to this, speculation of course plays a role in the gold market as well. Gold serves as an inflation hedge or a safe haven currency, resp. is also amenable to technical analysis – the corresponding expectations and bets have an impact on the gold price as well. **As a result, the gold market isn't immune to exaggeration and the formation of bubbles. With the growing importance of automated trading systems, it should be expected that price spikes in both directions will become greater. An increase in short-term volatility seems inevitable in this context.**

In summary one could state with respect to aspect 4 that the gold price <u>tends to be fragile</u>. It depends primarily on whether its "narrative" happens to be popular or not at a given time. After the *Nixon shock* the gold price rose by a factor of 50 until 2011, but lost 40% of its value again in the subsequent years. That's quite degree of volatility. However, there exists a firm base of hardcore gold fans, resp. "people who understand gold", who have faith in the narrative regardless of short-term fads, which tends to limit gold's downside potential.

***Aspect 5**: Gold is liquid, even in stress situations*

Gold is among the most liquid investment assets in the world. Its daily trading volume is only exceeded by that of three other currency pairs (USD/EUR, USD/JPY and USD/GBP). Due to its tight bid-ask spread, gold can be sold in stress situations without significant price discounts. **In this respect gold is therefore <u>robust</u>**.

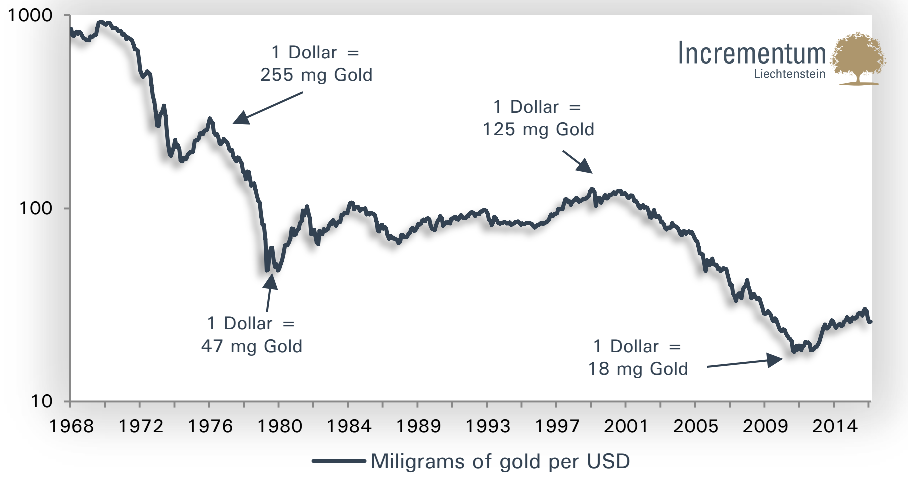
***Aspect 6**: Gold is in a reciprocal relationship with the monetary system*

Gold has neither maturity risk, nor commodity risk, and above all: Gold has no counterparty risk. The market in paper assets on the other hand is based on the promises of countless different counterparties. As long as confidence is high and the economy performs well, an asset without counterparty risk tends to be out of fashion; however, when concerns about potential defaults grow (deflationary environment), assets such as gold can rapidly regain importance. The attractiveness of gold is therefore an inverse function of the faith in the system.

In this context it makes sense to look at gold as the measure of other things – after all, the global stock of gold has only grown by 1.5%

annually over the past century, while the US dollar's monetary base alone has been inflated by nearly 10% per year. We have frequently pointed out that over long time periods, the prices of numerous goods have barely changed relative to gold (resp. have even declined as a result of technological progress), whereas their dollar prices have vastly increased. **The fluctuations of the monetary system also lead to fluctuations in the price of gold though, as it is measured in fiat currencies, primarily in terms of the US dollar.** The next chart shows the exchange rate between gold and the US dollar inverted for a change: The US dollar has lost an enormous amount of value relative to the precious metal since 1971.

How many milligrams of gold can be purchased for one US dollar?



Source: Federal Reserve St. Louis, Incrementum AG

"The fragile wants tranquility, the antifragile grows from disorder, and the robust doesn't care. Debt always fragilizes economic systems."
Nassim Taleb

The "In Gold We Trust" report inter alia conveys the insight: The long-term trend in the gold price is not a gold story, but rather a story of the monetary system. The long-term uptrend in the gold price is the result of the system's addiction to inflation. Moreover, periods during which the monetary system comes under pressure, lead to the gold price being pushed up. Periods during which the world seems to be doing fine – and these can last a long time – can result in gold and the associated narrative falling into oblivion. In short: **With respect to aspect 6, gold is clearly <u>anti-fragile</u>.**

Aspect 7: *Black swans exist in gold's universe as well, but we regard their destructive potential as limited*

In order to assess the fragility or anti-fragility of an asset, Taleb recommends that one should ask what the largest possible loss could be, the so-called *black swan*. When securities markets are affected by black swan events, the environment tends to be especially beneficial for gold. **However, are there also potential black swans for gold itself?**

First, there is the threat of a gold ban, which we have devoted a separate chapter to. As we have pointed out, a comprehensive, effective gold ban appears highly unlikely, as controlling compliance would be ineffective, resp. too cost-intensive. Restrictions and taxation of gold trading, which would diminish the advantage of gold ownership considerably are however definitely possible.

Secondly, gold's monopoly position in the area of alternative currencies could be challenged by emerging crypto-currencies, which

are also regarded as a counter-concept to the current monetary system. Such competition for gold is a historical novelty. However, many crypto-currencies are gold-based as well; it appears highly unlikely that gold will be displaced by superior competition.

Thus, even in a worst case scenario, gold would continue to play a prominent role. Moreover, as Taleb remarks with respect to predictions: Things that have endured for a long time, in most cases tend to survive things which are newly emerging – the similarity between the future and the present tends to be far greater than one is inclined to assume. **With respect to Aspect 7 we can therefore state that gold tends to be robust.**

All in all, it can be said that the question whether gold is fragile, resp. anti-fragile is multi-dimensional. We have attempted to approach an answer and have addressed seven aspects of the precious metal, which are summarized in the following table:

Aspect	Fragility
1. Trust capital	No statement possible
2. History as a medium of exchange	Not perfectly antifragile, but antifragile features
3. Intrinsic stability/durability	Robust
4. Valuation	Rather fragile
5. Liquidity	Robust
6. Reciprocity to monetary system	Antifragile
7. "Black swan" for gold	Rather robust

Source: Incrementum AG

Gold in the context of an anti-fragile portfolio

However, what is of greater interest to investors than the question of whether gold itself is anti-fragile, is whether it is possible to construct an anti-fragile portfolio with the help of gold. In answering this question, one has to take the fundamental principle of anti-fragile systems into account, which we have already discussed above – namely, **that a number of elements within a system have to be fragile in order to render the system as a whole anti-fragile.** In a portfolio context this means: **An anti-fragile portfolio definitely has to contain individual components that are risky.**

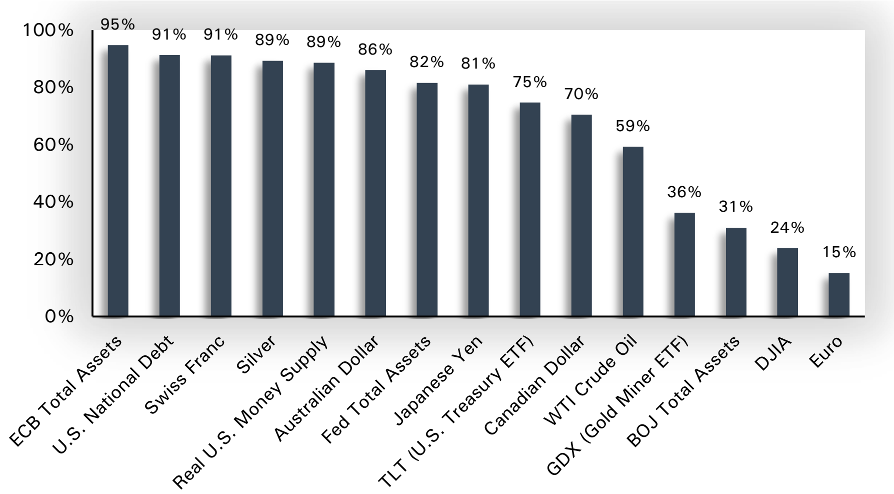
Taleb advises against constructing a portfolio solely out of components with medium risk. Instead he recommends a "barbell strategy", i.e., **a combination that consists of two sub-portfolios: an ultra-safe portfolio as well as a highly speculative portfolio, which contains extremely risky individual investments with an asymmetric risk/reward profile**. We want to discuss gold in the context of these two sub-portfolios.

1. Gold in the ultra-safe portfolio

Numerous studies show that adding gold lowers the volatility of a portfolio and hence improves statistical portfolio characteristics**. Since gold is barely, resp. even negatively correlated with most other asset classes**

as illustrated by the following chart, it can play an important role in portfolio diversification.

Long-Term Correlation Between Gold and Different Assets and Currencies



Source: National Inflation Association, Incrementum AG

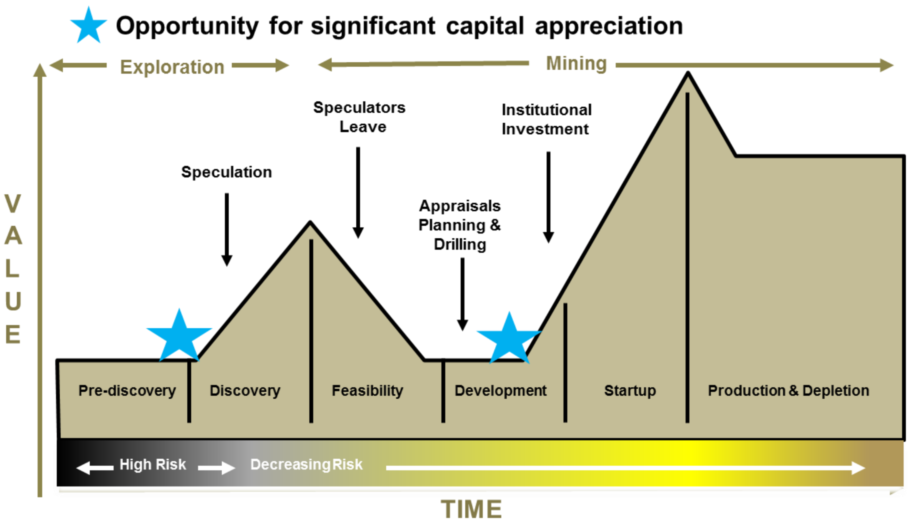
We have discussed the Permanent Portfolio as an appropriately safe portfolio above. It is based on the principle of diversification, whereby four equal-weighted asset classes, which can experience strong volatility individually (and are therefore fragile), correlate negatively with each other and overall generate stable real returns without the risk of large drawdowns. **Thus the Permanent Portfolio is not an anti-fragile, but a robust portfolio, and is therefore extremely suitable as a conservative core portfolio (resp. an ultra-safe sub-portfolio).**

2. Gold in the highly speculative sub-portfolio

The highly speculative sub-portfolio contains investment assets which can potentially generate very high returns, but are correspondingly risky. It is however important that the risk of loss is limited – therefore, investments with an asymmetric risk/reward profile such as options are suitable for inclusion. Gold itself can definitely play a role in such a portfolio as well, if it is actively managed and occasionally even leveraged.

A clearly asymmetric risk/reward profile with option-like characteristics is inter alia provided by gold mining shares. The different characteristics and risk profiles of an investment in mining stocks are illustrated by the following chart. **Funds investing in gold mining equities can occasionally be suitable for a highly speculative sub-portfolio as well**.

Typical life cycle of a mining stock



Source: Brent Johnson, Santiago Capital

Conclusion

"In other words, in order to achieve superior results, an investor must be able – with some regularity – to find asymmetries: instances when the upside potential exceeds the downside risk. That's what successful investing is all about."
Howard Marks

With anti-fragility Nassim Nicholas Taleb has presented an extremely interesting concept, which is quite useful for investors. Instead of performing necessarily incomplete and distorted calculations of specific risks and base portfolio allocations on those, he recommends constructing portfolios that are prepared for a variety of different scenarios. **A number of scenarios would be devastating for fragile investments, while robust investments deliver stable returns regardless of the environment. An anti-fragile investment will post small losses in many scenarios, but benefits disproportionally in a stress scenario.**

We have come to the conclusion that gold represents a multi-dimensional investment asset in this context. With respect to its physical durability, its high liquidity and its firm foundation of trust, it has to be assessed as robust. Worst-case scenarios in the form of a gold ban or competition from crypto-currencies would probably not have devastating effects. However, since the gold price can occasionally overheat, as well as decline strongly and remain at relatively low levels for extended time periods, gold is also fragile in this particular respect. With respect to gold's most important characteristic as an asset that performs in a reciprocal manner relative to the monetary system, and its effectiveness as an inflation and crisis hedge, it is definitely anti-fragile though.

In a portfolio context gold can on the one hand provide stability, as it is an asset suitable for diversification purposes. If it is well managed it can generate returns in a speculative anti-fragile portfolio as well. This applies particularly to gold mining stocks, resp. gold mining funds.

c. The opportunity costs of gold

"'Time is Money' is perhaps the simplest expression of the economic concept of opportunity cost: Forgoing one thing for something else. Interest rates represent nothing more than the "opportunity cost" of money, or of forgoing some amount of money today for the same at some future point in time. Assuming that cash in hand is normally used for consumption rather than savings, another way to look at interest rates is that they represent the

opportunity cost of consumption today rather than at some point in the future: The higher the rate of interest, the higher the opportunity cost of consuming today, rather than tomorrow. This is the Iron Law of Money and Interest, available in all aspects."[109]

John Butler

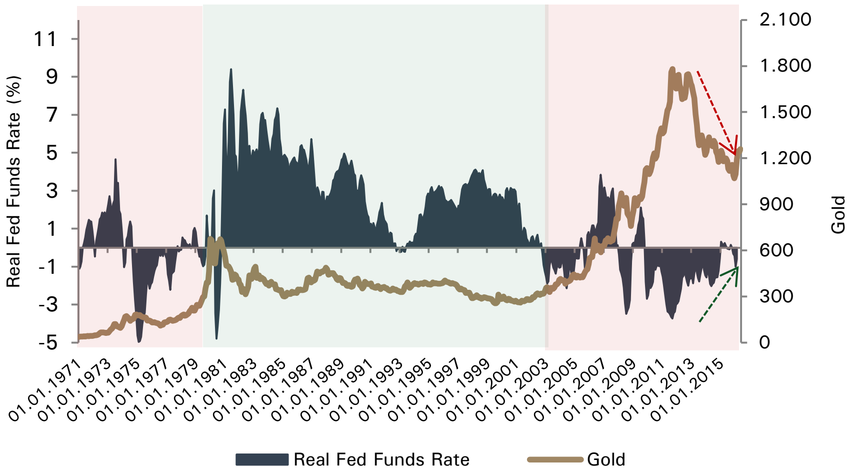
Opportunity costs are a crucial factor determining gold price trends. How great are the competing economic opportunities and risks which one has to accept if one decides to hold gold? Real interest rates, the growth of monetary aggregates, the volume and quality of outstanding debt, political risks, as well as the attractiveness of other asset classes (particularly equities) are in our opinion the most important factors affecting the trend in the gold price. **Thus we want to focus on the most important opportunity costs impacting gold prices – particularly real interest rates and stock prices.**

Real interest rates

The following chart shows real interest rates compared to the gold price. There are two conspicuous time periods that were shaped by predominantly negative real interest rates: on the one hand the 1970s and on the other hand the time period from 2002 until today. Both phases clearly represented a positive environment for the gold price. However, one can also discern that the *trend* of real interest rates is relevant for the gold price. Thus real interest rates have been stuck in negative territory most of the time since 2011, but were in an upward trend. This increased the opportunity cost of holding gold, which created an unfavorable environment for the gold price.

[109] Vgl. "The Iron Law of Money", John Butler, GoldMoney Research

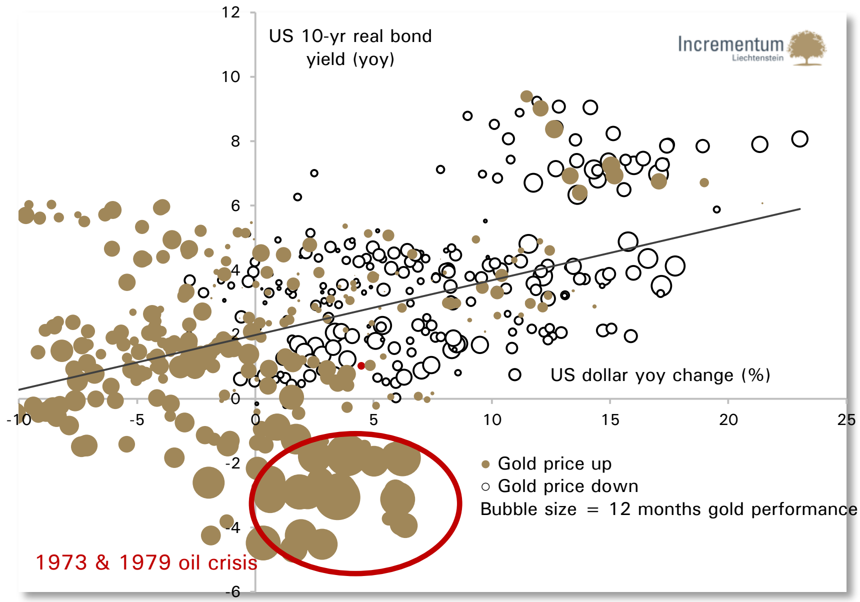
Real interest rates vs. the gold price since 1971



Source: Federal Reserve St. Louis, Incrementum AG

The following chart illustrates the annualized monthly performance of gold since 1973 compared to the trade-weighted dollar index as well as the real yields of 10 year US treasury notes. Golden circles stand for a rising gold price, white circles stand for a declining gold price; the larger the radius of the circles, the larger the price move. It can be seen that gold exhibited a stronger performance primarily in years in which the dollar weakened, while years in which the dollar appreciated and real interest rates increased were in most cases associated with a declining gold price. **Gold posted its largest price gains during the oil crises of 1973 and 1979, while real interest rates were negative and the dollar's performance was subdued. In our opinion such a scenario looks like an increasingly realistic possibility nowadays as well.**

Gold vs. real interest rates and the trade-weighted US dollar index



Source: Société Générale, Federal Reserve St. Louis, Incrementum AG

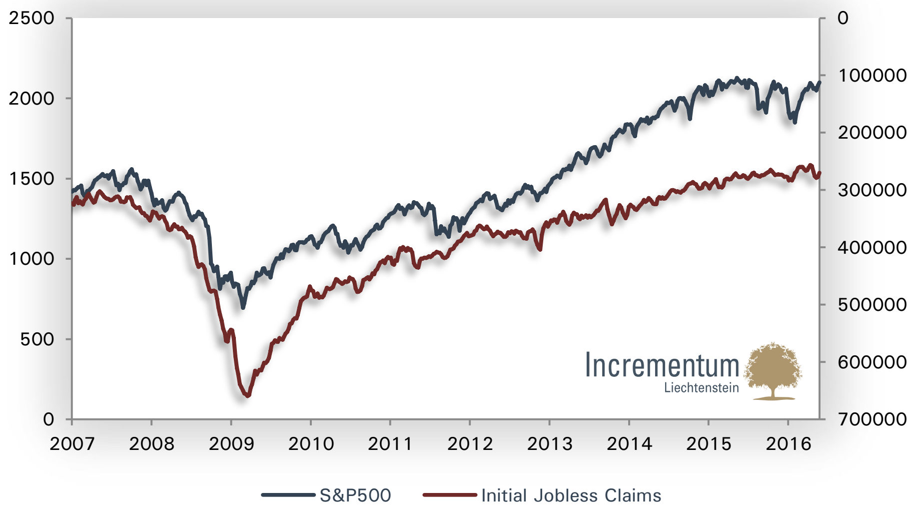
<u>Conclusion</u>:

A long-term downtrend in the gold price would go hand in hand with rising or consistently positive real interest rates. Due to the amount of debt that has been amassed in the meantime – mainly on the government and corporate level, but also by private households – this is a hard to imagine scenario in our opinion, **as central banks have long become hostage to these incautious debt policies.**

Equities

Against the background of the above mentioned asset price inflation in a disinflationary environment, stocks as classical titles to capital were obviously among the greatest beneficiaries. The following chart illustrates that there exists a pronounced correlation between the trend in employment and the S&P 500 Index (scale inverted). The clear downtrend in initial jobless claims that has been in force since 2009 manifested itself in the form of increasing confidence and consequently rising stock prices. However, it appears now as though the trend in the labor market may be reversing. **This could well signal the end of the bull market in equities.**

S&P 500 (left scale) vs. initial jobless claims (right scale)

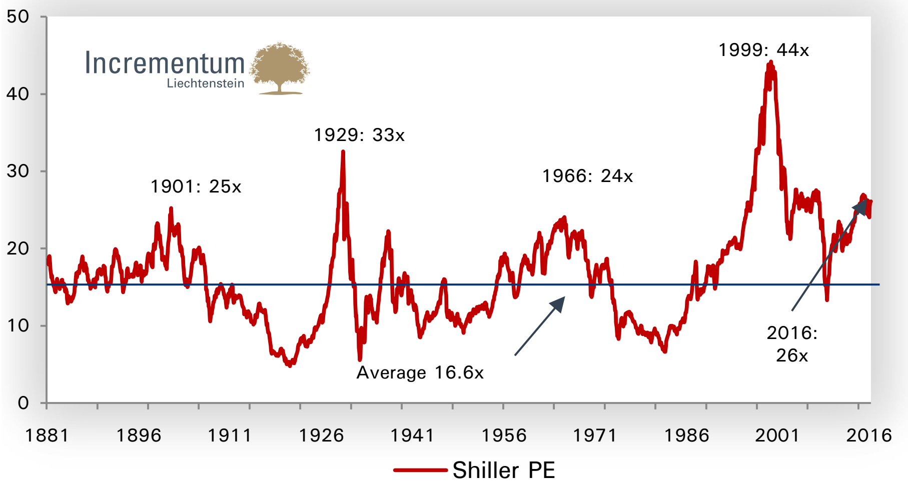


Source: Federal Reserve St. Louis, Incrementum AG

"My fear is that because interest rates are suppressed, therefore earnings are inflated. So when rates go up … the hall of mirrors is shattered and we look at each other and see what actually is real rather than what the Fed wants us to believe."
Jim Grant

Naturally one should consider stock market valuations as well. The so-called Shiller P/E ratio (a.k.a. P/E 10 or CAPE) is suitable for assessing the long-term situation. According to this valuation measure, prospects for the US stock market do not appear very bright, as valuations are nowhere near bargain levels. The Shiller P/E ratio currently stands at 26, a level that has been exceeded on only two prior occasions over the past 134 years. The long-term average is 16.6, which is significantly below current levels.

Shiller P/E ratio since 1881



Source: Prof. Robert Shiller, Incrementum AG

If one looks at the last two major peaks in the S&P 500 Index in conjunction with the valuations prevailing at those times, a continuation of the bull market in stocks appears rather unlikely. The uptrend has been broken and the market has reached a plateau from which it has already suffered two short-term breakdowns over the past year.

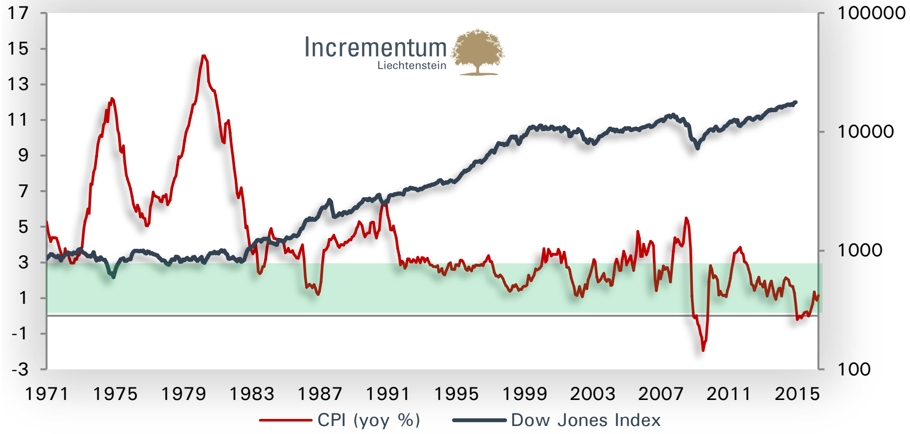
S&P 500 Index and valuations at market peaks

Source: Yahoo Finance, Incrementum AG

"Ultimately, investors will need to choose where to place their faith – in history books or in crystal balls."
Jordan Eliseo

The inflation rate is not only of decisive importance for gold, but also for the stock market. Our analyses of price inflation show that the most favorable environment for equities is associated with inflation in a range of +1% to +3%. This "feel-good corridor" was continually violated in the 1970s, stocks moved sideways (in interesting ways) in nominal terms, but lost enormous ground in real terms. Other time periods with relatively high inflation rates such as e.g. 2000 – 2002, 2005 or 2007 to mid 2008, also tended to be negative for the stock market. **Should inflation concerns – in line with our expectations – be gradually priced in, this would definitely represent a headwind for equities.**

US inflation rate and the Dow Jones Industrial Average since 1971



Source: Incrementum AG, Wellenreiter Invest, Federal Reserve St. Louis

<u>**Conclusion:**</u>
The current valuation of US equities is quite ambitious compared to historical valuation levels. A reversion to the mean appears only a question of time, especially if inflation concerns should come to the fore. **The bull market in US stocks seems to be sputtering lately. A preview of what the world could look like if the trends of recent years' reverse, was provided early this year when stock markets plunged and gold entered a new bull market.**

8. VALUATIONS, SCENARIOS AND PRICE TARGETS

"Value does not exist outside the consciousness of men."
Carl Menger

As regular readers of our reports know: Valuations are always subjective. They are in the eye of the beholder and often vary considerably. Objective factors, such as production costs are entirely irrelevant for valuations. The market value of a masterwork painted by Vincent van Gogh is significantly higher than its production costs, and a glass of water will be valued quite differently in the middle of a desert than on the shore of a lake.

Last year we decided to set **a time horizon of three years – i.e. to June 2018 - for our long term price target of USD 2,300 to be reached**. This is based on the premise that the trend of price inflation is going to turn up. As we have set forth in detail in this report, we feel that recent events are validating our views and we are therefore maintaining our price target. In the following chapter we want to discuss valuations from this perspective.

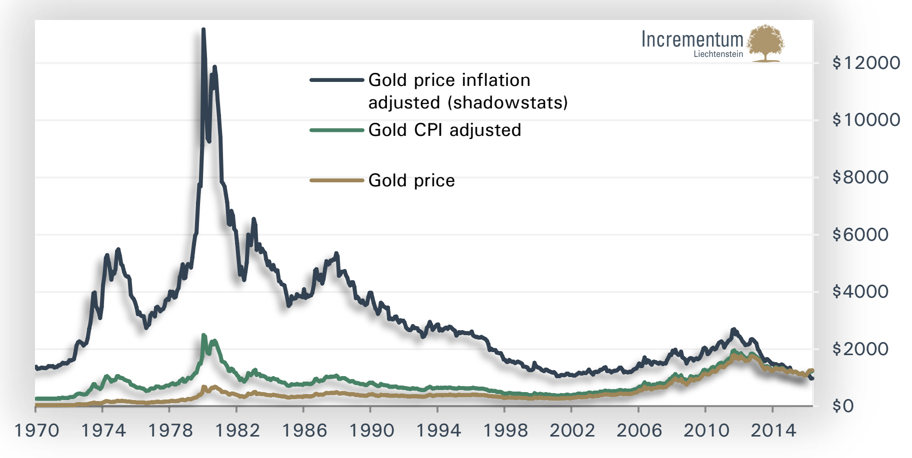
a. Gold: comparison of absolute price levels

"In reality there is no such thing as an inflation of prices, relatively to gold. There is such a thing as a depreciated paper currency."
Lysander Spooner

Nominal price comparisons involving goods denominated in fiat money are in our opinion misleading, particularly over long time periods. The quality of a dollar today is markedly different from that of a 1980 dollar, or even that of a dollar in the year 2000. When the gold price reached its (then) all time high of USD 850 per ounce in January of 1980, the average income of US households stood at approximately USD 17,000 p.a. Today such an income would be well below the official poverty threshold. The level of outstanding debt has changed rather significantly as well since then. While US federal public debt amounted to USD 863 bn. at the time of gold's 1980 peak, the amount stands at USD 19.2 trillion today – an increase by a factor of 22.

One possibility for dealing with the problem the constant debasement of money poses for inter-temporal price comparisons, is to look at inflation-adjusted time series. Below we are charting the gold price both in nominal and inflation-adjusted terms. We have already discussed the changes in the methodology used to calculate inflation and the consequences for official price inflation rates. A correct adjustment for changes in money's purchasing power is very difficult in light of the many problems attending the measuring of price inflation. In order to present alternative perspectives, we have adjusted the gold price both by the official consumer price index as well as by the inflation data published by Shadow Stats.

Gold price: nominal, adjusted by CPI and Shadow Stats inflation data



Source: Federal Reserve St. Louis, Shadow Stats, Incrementum AG

As can be seen, gold currently trades significantly below its inflation-adjusted peak, regardless of the adjustment method one employs. Adjusted by the official CPI inflation rate, the 1980 peak is equivalent to USD 2,481 in today's money. Using the Shadow Stats figures for the adjustment, the 1980 peak is equivalent to approx. USD 13,177. **Both in nominal terms (relative to 2011), as well as in inflation-adjusted terms, the gold price is therefore still far from its former highs.**

b. Gold: comparison of relative prices

"The most important of these rules is the first one: the eternal law of reversion to the mean (RTM) in the financial markets."
John Bogle

Another possibility of assessing valuations are relative price comparisons (i.e., via price ratios). These show the exchange ratio between two goods over time. This comparison is especially useful if one compares the ratio of goods with standardized characteristics. We have taken a look at the purchasing power of gold expressed as a ratio to other goods over recent decades. Over the long term it is to be expected that these exchange ratios will revert to the mean.

Gold/oil ratio reaches extreme level

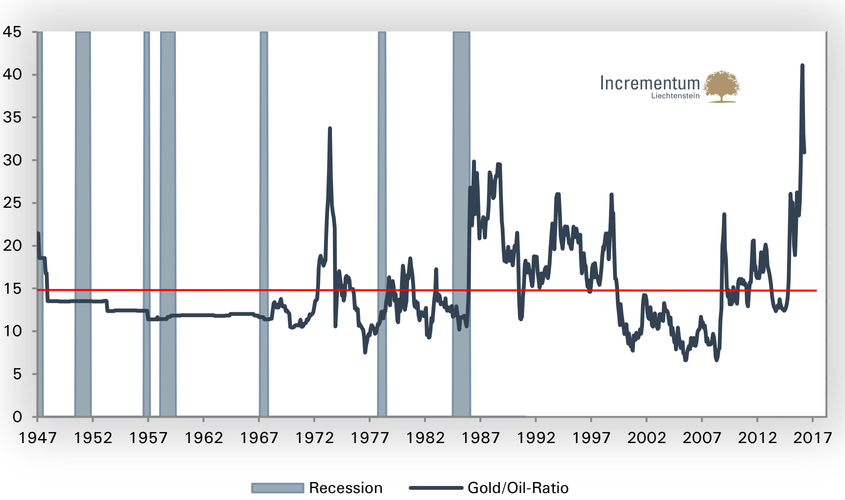
The ratio of gold to oil is especially interesting. While gold is a monetary commodity, oil is the most important industrial commodity. The range in which the gold-oil ratio moves is smaller than that of ratios of gold to other commodities. However, there are a number of interesting historical extremes, which were largely driven by oil-specific events.

A strong rise in the oil price would be a black swan for financial markets!

Currently an ounce of gold will purchase 30 barrels of oil, which is significantly above the long term average of 14. Recently the ratio reached its highest level since the early 1970s. Thus oil appears clearly undervalued relative to gold. A reversal to the mean would definitely be imaginable in an inflationary environment. In such a scenario, the price of oil would rise even more strongly than the gold price. Such a development would represent quite a black swan for most market participants. **At a gold price of USD 2,300 combined with a normalization of the gold/oil ratio toward the 20 level, the price of oil would be at USD 115 – a price level most market participants don't even consider an extreme tail risk anymore.**

"Over time, there's a very close correlation between what happens to the dollar and what happens to the price of oil. When the dollar gets week, the price of oil, which, as you know, and other commodities are denominated in dollars, they go up. We saw it in the '70s, when the dollar was savagely weakened."
Steve Forbes

Gold/oil ratio since 1947

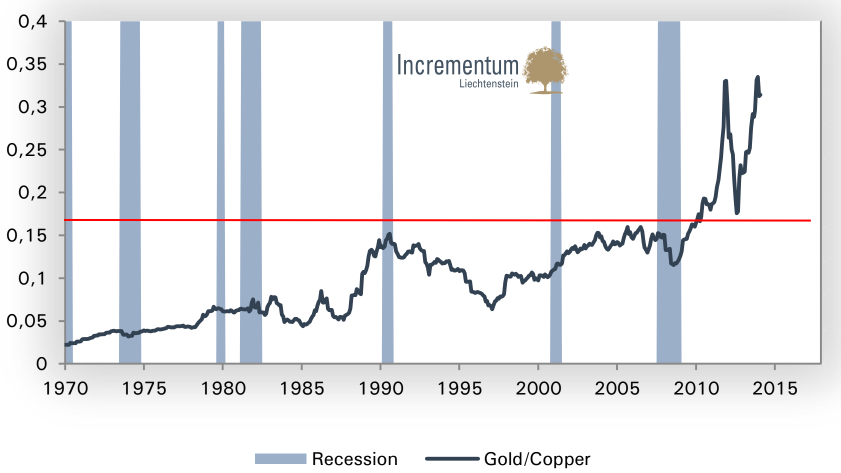


Source: Federal Reserve St. Louis, Incrementum AG

Gold/copper ratio: an indicator of economic confidence

Copper is the industrial metal *par excellence*. There are numerous uses for it in various areas of the value-added chain of diverse products. It is interesting that past peaks in the gold/copper ratio occurred both in times of inflationary and deflationary crises. **Generally though, it can be stated that the gold price tends to strengthen significantly relative to the copper price during times of great economic uncertainty (e.g. the oil crisis and its aftermath, Lehman crisis).** It can be seen that uncertainty has recently once again increased – the ratio has been in an uptrend since the end of 2014. The median is at 0.17, which is markedly lower than the current ratio of 0.25. Extreme levels haven't been reached yet in the current advance though. If global economic growth continues to deteriorate, a further increase in the ratio would definitely be possible.

Gold/copper[110] ratio since 1970



Source: Incrementum AG

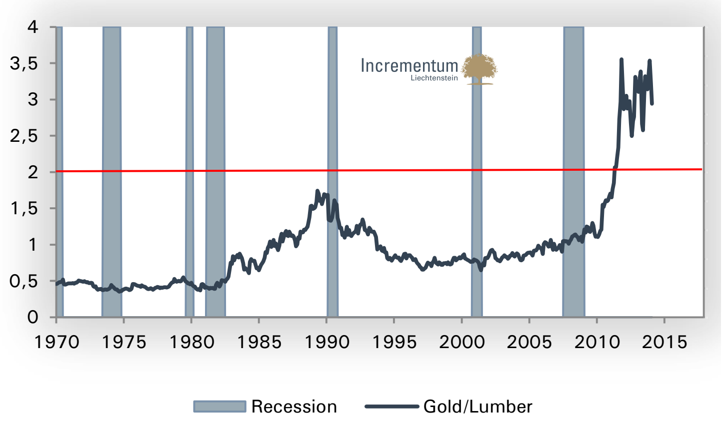
[110] LME-Copper Grade A Cash U$/MT

Gold/lumber ratio: influenced by the credit cycle

"The unique combination of Lumber and Gold is an intermarket relationship that has been anticipatory of future economic activity and risk appetite across asset classes outside of commodities."
Charles Bilello & Michael Gayed

Activity in the US housing market is one of the most important leading indicators of the economy.[111] Lumber is one of the most important raw materials associated with housing and is highly sensitive to changing conditions in the US real estate market. The latter in turn is decisively influenced by long term credit cycles. A rising ratio (i.e., rising relative strength of gold vs. lumber) signals that residential construction activity is slowing and vice versa. As the chart illustrates, the ratio rose significantly in the 1970s, but lumber began to display relative strength from 1980 onward, which only reversed decisively in 2006. Since then lumber has failed to revert to the mean, as it continues to be affected by subdued home-building activity.

Gold/lumber ratio since 1970



Source: Incrementum AG

Gold/silver ratio: inflation/ deflation indicator

"It is health that is real wealth and not pieces of gold and silver."
Mahatma Gandhi

The ratios described above are indicators related to economic activity. The gold/silver ratio is a special case though, as it serves as an excellent indicator of the interaction between inflation and deflation. There is a plausible economic explanation for this: silver is a hybrid, as it has on the one hand monetary characteristics, while on the other hand there is sizable industrial demand for it as well. The metal's monetary characteristics tend to come to the fore particularly in times of rising price inflation. The relatively small silver market reacts very strongly to capital market flows (see also the comparison of market capitalizations below) and silver usually tends to rise even more strongly than gold during gold bull markets. By contrast there are only few industrial uses for gold, thus gold demand is primarily of a monetary investment nature (even jewelry demand can be partly classified as monetary demand). Gold is moreover a beneficiary of deflationary environments as well. **One can therefore also regard the gold/ silver ratio as a deflation/ reflation ratio.**

[111] See in this context the excellent study "Lumber: Worth Its Weight in Gold", Charles Bilello, and Michael Gayed

Gold/silver ratio since 1970

Source: Incrementum AG

c. Comparison of market capitalization levels

If one compares the market capitalization of gold and silver to that of other asset classes, one can discern the extent to which the precious metals sector is still underrepresented.

Global financial system pyramid: valuation of gold and silver compared to other asset classes (in USD bn.)

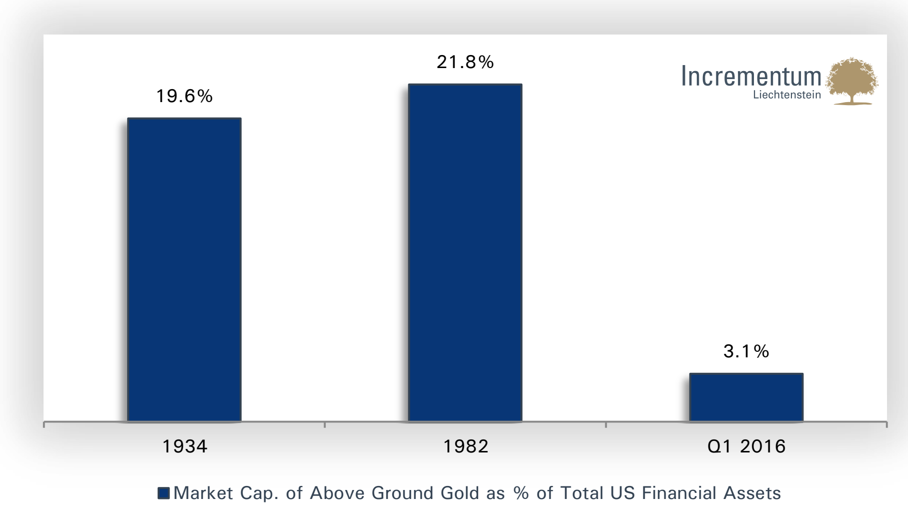
	USD bn.
Total global debt (end of 2014)	199,000
Total global bond market capitalization	139,000
Total global equity market capitalization (May 2016)	62,616
US-private real estate holdings (September 2015)	24,981
Market capitalization of total above ground gold (end of 2015)	7,640
Market capitalization of private and central bank gold holdings	2,907
Total market capitalization of all silver ever mined	928
Market capitalization of Apple	511
Total market capitalization of all silver ever mined excl. consumption	465
Total gold mined (2015)	127
Total market capitalization of largest 16 gold miners	123
Total silver inventory (2015)	44
Total silver mined (2015)	15

Source: Silberjunge.de, Bloomberg, Reuters, BIS, World Federation of Exchanges, CPM, WGC

"We tend to focus on assets and forget about debts. Financial security requires facing up to the big picture: assets minus debts."
Suze Orman

A historical comparison between the value of the global stock of gold and US financial assets confirms this assessment: currently the value of all the gold ever mined – i.e., approximately 183,000 tons – represents only 3.1% of the market value of all US financial assets. After the last two major currency devaluations of the USD vs. gold in 1934 and 1982 the value of the stock of gold relative to US financial assets amounted to 19.6% and 21.8% respectively.

Market capitalization of the global stock of gold in % of US financial assets



Source: Tocqueville Asset Management, Incrementum AG

d. When inflation strikes: Silver!

Analogous to the gold price we want to take a look at the inflation-adjusted silver price as well. The current price of silver doesn't even look particularly expensive in nominal terms. **Adjusted for CPI and Shadow Stats inflation rates, the price of silver is definitely at a historically extremely low level.**

Silver price adjusted by CPI

Source: National Inflation Association

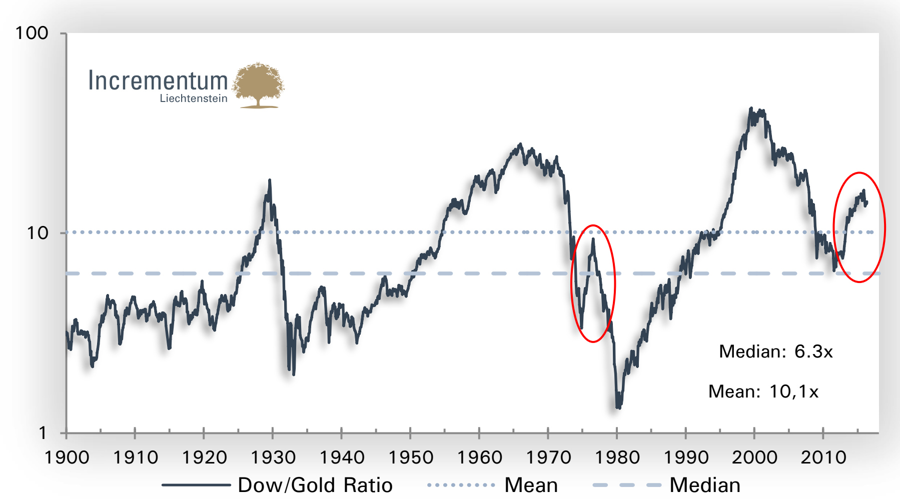
Should our assumption of an upturn in the trend of price inflation turn out to be correct, silver will be one of the investment assets likely to benefit the most from the inflationary trend in coming years. **At a gold price of USD 2,300 and a gold/silver ratio of 40 (which would appear quite realistic to us in an environment of rising inflation) the price of silver would stand at USD 57.50.**

e. The gold price as a reflection of subjective assessments of the economy

"Only the individual thinks. Only the individual reasons. Only the individual acts."
Ludwig von Mises

As noted above, value judgments are subjective. Particularly in the valuation of investment assets, expectations about the future play a crucial role. One of the perhaps best known and quite informative ratios is the Dow/gold ratio. In our opinion it reflects the expectations of market participants regarding future economic developments. Over the past century extremes in positive expectations were recorded in 1929, 1966 and 2000. After the financial crisis of 2008 a significant increase in economic confidence could only be observed in the years 2013 – 2015. This can be explained by the fact that the opinion that the crisis had been overcome and that a recovery was underway finally prevailed.

Dow/Gold ratio



Source: Incrementum AG

As we have noted, we expect that this narrative of a recovering economy won't be sustained much longer. Should faith in the economic expansion falter, a strong decline in the ratio should be expected; the gold price would once again outperform stock prices.

At a gold price of USD 2,300 and a Dow/gold ratio of 5, the Dow Jones Industrial Average would stand at 11,500 points.

<u>Conclusion</u>:

A return of price inflation is currently off the radar of most market participants. Our assumptions are based on the expectation that an inflationary or even stagflationary period lies ahead, because the measures taken to date cannot lead to a sustainable economic recovery. Should we be proven correct and should gold prices be significantly higher in 2018, this reorientation of prices won't happen in isolation. **We have calculated possible price targets for oil, silver and the Dow Jones Industrial Average based on historical ratios.**

Ratio		Price in USD
	Gold	**2,300**
Gold/Oil = 20	Oil	**115**
Gold/Silver = 40	Silver	**57.5**
Dow/Gold = 5	Dow Jones	**11,500**

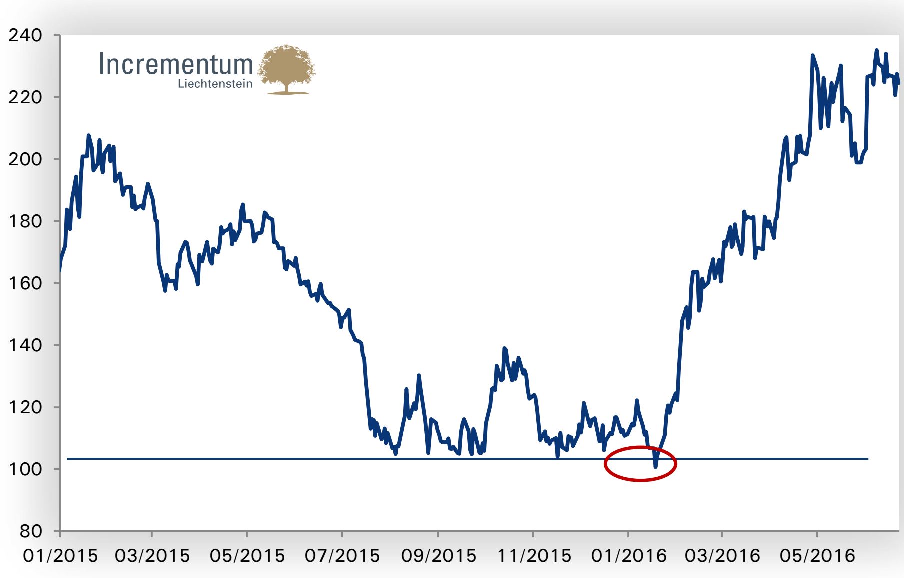
9. GOLD STOCKS

"I guess what I'm trying to say, is that if I can change, and you can change, everybody can change!"
Rocky Balboa, Rocky IV

"We are starting to see real distress. The sector is mining at a loss in order to keep its debt payments up. The industry is struggling with survival."
Mark Bristow, CEO Randgold Resources, August 2015

At the time our last gold report was published, the Gold Bugs Index stood at 152 points. The final low was put in on 19th January 2016, after the level of 104 had already been successfully tested on several occasions. The brief intraday-dip below the level of 100 in mid-January could well turn out to have been one of the greatest bear traps in history. Right thereafter a stunning uptrend began to take shape, in the course of which the gold mining stocks more than doubled within a few months. **In the following pages we will explain why we believe that this breakout has marked the end of the cyclical bear market and why the boom in mining stocks has only just begun.**

Gold Bugs Index (HUI) since January 2015



Source: Incrementum AG, Yahoo Finance

a. Where things stand and the relative valuation of mining stocks

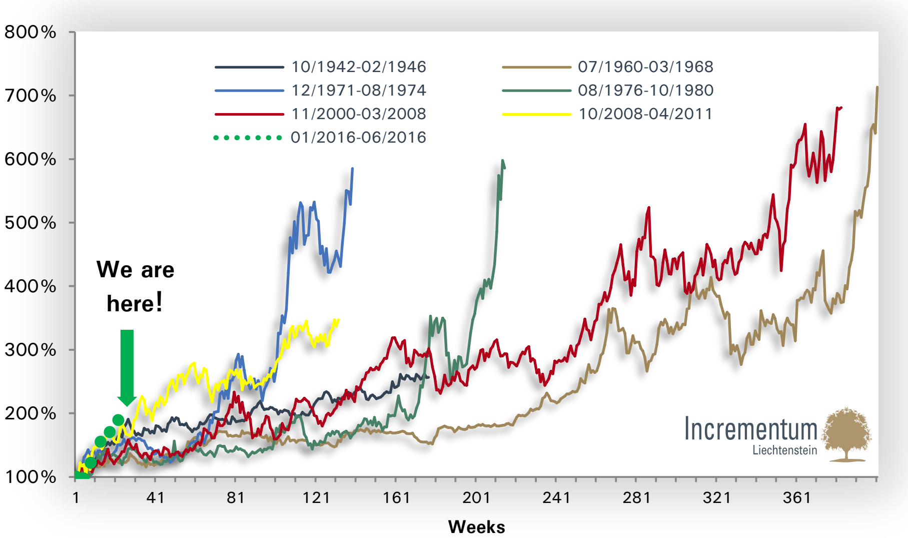
Even though gold mining shares have celebrated an impressive comeback since the beginning of the year, market participants remain quite sceptical. The view that mining stocks are already trading at (too) high valuations and that the impulsive move was merely a "dead cat bounce" [112] is still widespread.

If one looks at all bull markets in the Barron's Gold Mining Index (BGMI) [113], one can see that the recent uptrend is still relatively small and short in

[112] Wikipedia: "In finance, a **dead cat bounce** is a small, brief recovery in the price of a declining stock. Derived from the idea that 'even a dead cat will bounce if it falls from a great height', the phrase, which originated on Wall Street, is also popularly applied to any case where a subject experiences a brief resurgence during or following a severe decline."
[113] The BGMI is the oldest available gold mining index. The index can be obtained at www.bgmi.us

duration compared to previous bull markets. Thus, if this is indeed the beginning of a significant uptrend in gold mining stocks – which we assume to be the case – there should still be a great deal of upside potential.

Bull markets compared: BGMI bull markets since 1942

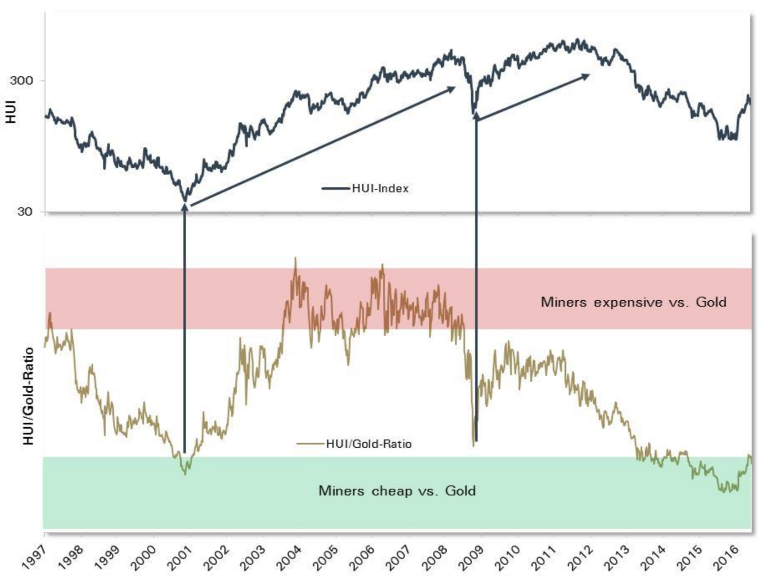


Source: Sharelynx, Nowandfutures, Barrons, Incrementum AG

"Where one thing falls, another grows. Maybe not what was there before, but something new and wonderful all the same."
Bambi's mother

Relative to the gold price, the gold stocks in the Gold Bugs Index are at the same level as in 2001, when the gold bull market began. This is by itself strong evidence that gold mining stocks are cheap relative to gold. However, the following chart also shows that mining stocks were only able to outperform gold between 2001 and 2004. We have discussed the reasons for the disappointing performance of the sector in the period after 2004 and its fundamental problems in detail in last year's report under the heading *"Why have gold mining stocks performed so badly?"* However, we also mentioned on that occasion that the gold mining industry had gone through a process of creative destruction and fundamental restructuring. **As a result of this, we expect that in coming years, mining stocks will once again become the kind of leveraged bet on gold that investors crave.**

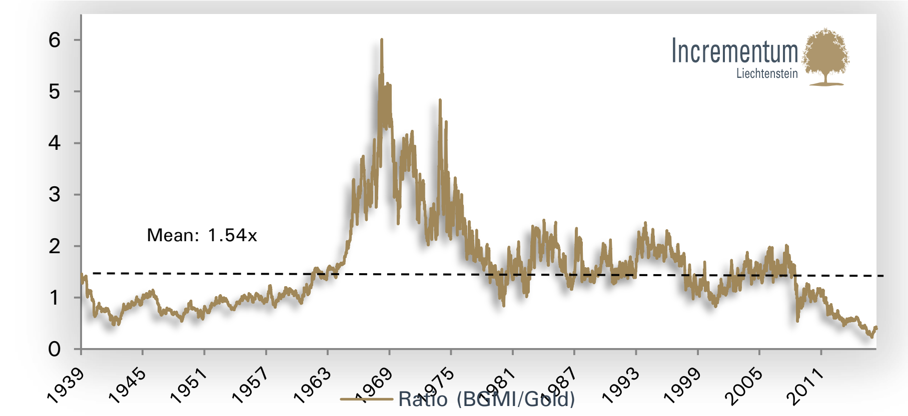
HUI/Gold-Ratio



Source: WiWo, Bloomberg, Incrementum AG

A very long-term ratio chart illustrates the extent of the undervaluation of gold mining stocks even more starkly. The Barron's Gold Mining Index (BGMI) has recently reached the lowest level relative to gold in 70 years. The ratio's current level of 0.4x remains significantly below the long-term average of 1.54x.

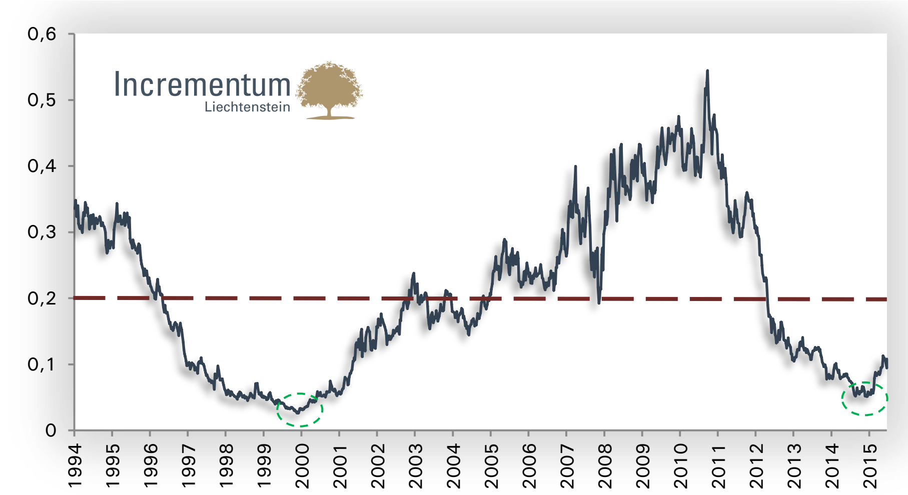
BGMI/ gold ratio at the lowest level since 1942



Source: Nick Laird, Sharelynx.com, www.nowandfutures.com, Barrons, Incrementum AG

If one looks at gold mining stocks relative to the broad market (S&P 500), one can see that the gold sector has been treated with extreme scepticism since 2011. Up until recently, the ratio has been at the lowest level since 2000 and finally appears to have turned up again now. The average since 1994 is 0.2, which is twice as high as the ratio's current level of 0.1. A reversion to the mean alone would imply significant upside potential for gold stocks, respectively downside potential for the S&P 500 Index.

HUI/ S&P 500 ratio

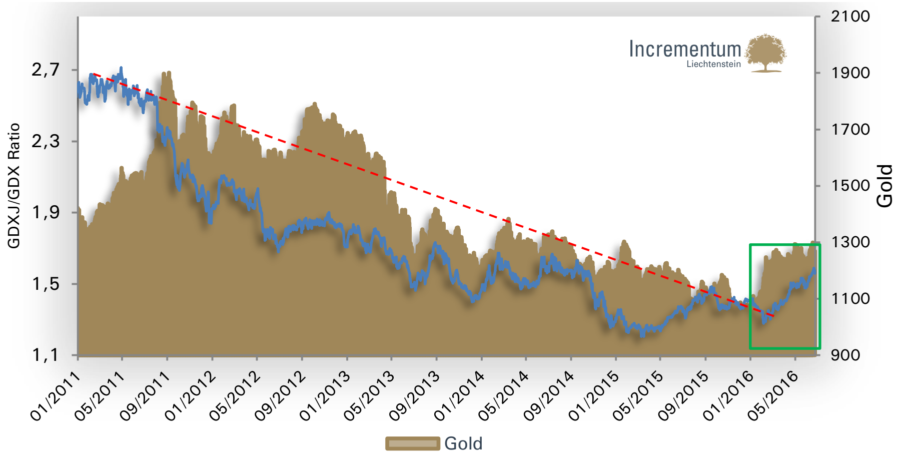


Source: Yahoo Finance, Incrementum AG

"In investing, what is comfortable is rarely profitable."
Robert Arnott

An informative indicator of risk appetite in the mining sector is the ratio between the ETFs GDXJ and GDX. GDX primarily contains stocks of well-capitalized senior gold producers, while GDXJ contains more risky junior and small cap miners, and consequently has a far higher beta. **When the ratio rises, it indicates that the smaller junior shares are exhibiting relative strength. This implies increasing risk appetite on the part of investors**. It can be seen that the ratio has bottomed and has recently broken through a line of resistance.

GDXJ/GDX ratio



Source: Bloomberg, Incrementum AG

b. Aspects specific to investment in gold mining stocks

Commodities and particularly mining stocks are considered a highly complex and challenging asset class. Fortunes are regularly made and just as quickly lost in the sector. On the micro level, the industry is characterized by many-layered interactions between the price trend in the underlying commodity, the technical challenges of mining, political risks, but also substitution and technological progress. As a result forecasts in this sector regularly turn out not to have been worth the paper they were written on. The so-called "hog cycle" also exists in the form of an (industrial) metals cycle, only that the time to harvest is much longer in mining than in the breeding of pigs.[114]

"Conventional" commodity investments are challenging, but investment in gold and silver shares is the most demanding endeavor of all. On the one hand this is attributable to the enormous volatility of the sector, but on the other hand also to the anomalies associated with monetary commodities – cue: stock-to-flow ratio. Cycles in mining stocks are moreover strongly influenced by changes in the monetary backdrop. These can provide headwinds or tailwinds for the asset class which last many years, sometimes even decades. This has the following far-reaching consequences for mining companies and investors:

- Historically **bull and bear markets in gold stocks are of above average duration**
- The super-cycle is triggered by **fundamental changes in monetary framework conditions**
- These long-term trends tend to **affect corporate governance**
- After extended boom periods structurally high profit margins often lead to **sub-optimal capital allocation**
- Extensive slumps force the industry to engage in massive consolidation, the **remaining companies are forced to become highly efficient.**
- The most **interesting buying opportunities for investors tend to**

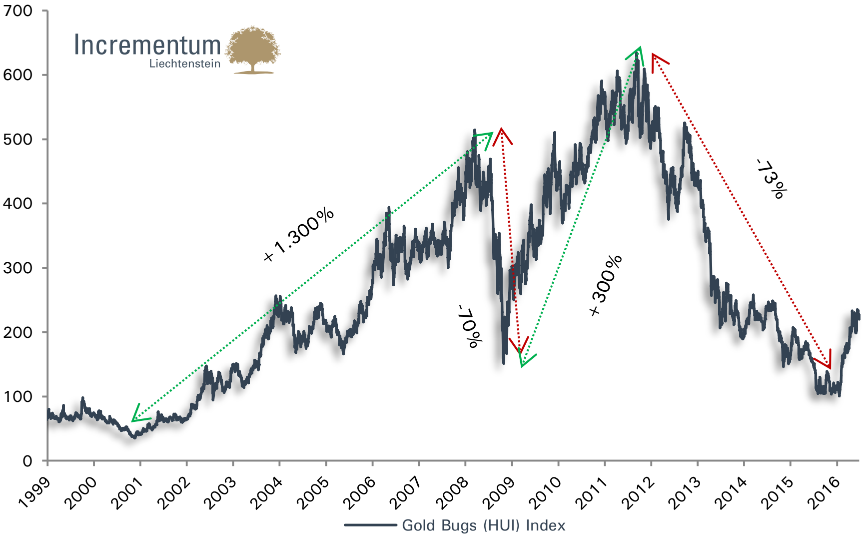
[114] See: Malisch, Ralph: "Gold, Kupfer & Co. – Konstruktives am Ende eines langen Tals der Tränen" (*"Gold, copper et al. - constructive signs at the end of a long vale of tears"*), *Smart Investor*

present themselves after several years of consolidation

- The uncommonly strong top-down influence of monetary policy on this asset class – particularly the interaction between inflation and deflation – means **active timing decisions are required when investing in mining stocks.**

Market and sector forces together typically cause 80% of the price movement in a mining stock, whereas a company's fundamentals as a rule account for less than 20%.[115] **The following chart illustrates that gold stocks are anything but "buy and hold" investments, and have to be actively traded.**

Amex Gold Bugs Index: bull and bear market cycles since 1999



Source: Datastream, Incrementum AG

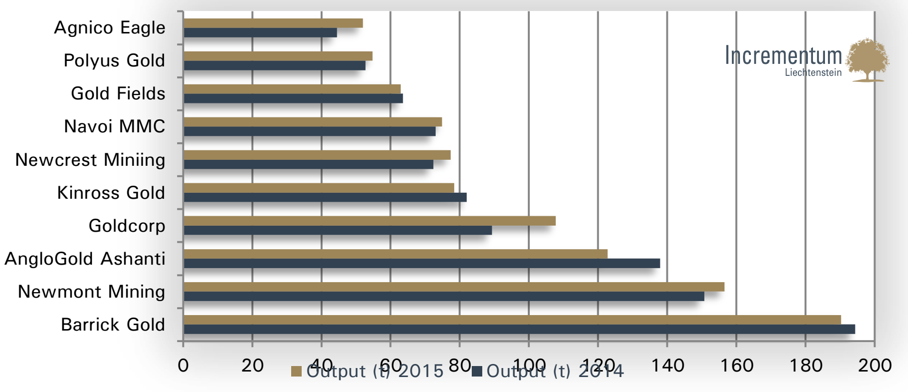
In our opinion mining stocks – analogous to gold and silver – react most strongly to *changes* in the rate of inflation, which is why we are timing them actively with the help of our proprietary inflation signal.

c. M&A: Developers on the menu of senior producers?

We believe that takeover activity is likely to accelerate again in coming months. Due to rigorous cost cutting programs, many projects have been written off or sold. Neglect of exploration is also beginning to take its toll. Compared to 2014, production has declined at four of the ten largest gold producers and stagnated at two. The gradual deterioration in production profiles is likely to continue: for example, Barrick Gold's production is expected to decline by 20% over the coming two years.

[115] See: King, Benjamin F.: *The Latent Statistical Structure of Securities Price Changes*, University of Chicago, 1964

Production of the top 10 gold producers 2014 vs. 2015 (in tons)[116]



Source: Company Reports, GFMS, Thomson Reuters, Incrementum AG

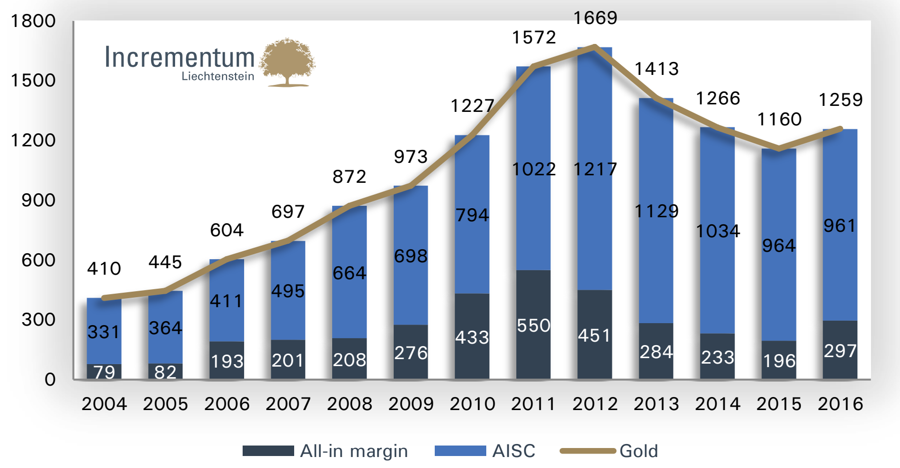
As a result of this we continue to expect that producers will replace their shrinking reserves by means of takeovers and mergers. The biggest beneficiaries of this trend will likely be junior producers and especially fully funded developers. **In our research and investment allocation process we are therefore especially strongly focused on this segment at present.**

d. Creative destruction in the mining sector: is the sector at a turning point?

The industry is currently experiencing a sea change. In our opinion, the extensive creative destruction it has gone through is healthy in the long-term. It appears as though the industry has set new priorities. Profitability, capital discipline, and stable cash flows per ounce appear to be preferred over maximizing gold production by now. The partly enormous cost reductions that have been achieved appear particularly impressive to us. On the one hand one can see how strongly the trend in the gold price itself influences costs (both to the upside and the downside). **Many costs are a direct derivative of the gold price** (e.g. royalties, input factors such as drilling costs, taxes, wages for skilled labor, etc.). One should nevertheless not underestimate the operating improvements achieved by many companies. The next chart shows the significant decline in AISC[117], as well as the recent increase in profit margins.

[116] Figures for Kinross Gold, Navoi MMC and Gold Fields based on estimates of GFMS Thomson Reuters
[117] As it was difficult to compare various different cost definitions at mining firms, uniform definitions were adopted. AISC is supposed to reflect long-term production costs and avoid distortions from one-off expenses. Apart from cash costs (i.e., mining operating costs), it includes administrative expenses, taxes, costs related to mine maintenance and development, capital costs as well as exploration costs.

Margins, AISC and the gold price: significant margin growth is possible even on small gold price increases



Source: TD Securities, World Gold Council, Company Data, Incrementum AG

All in all it appears as though the measures taken in recent years have really led to a turnaround:

- The CEOs of nearly 30 important gold mining companies have been replaced (inter alia at Barrick, Goldcorp, Kinross).
- The focus has increasingly shifted toward free cash flow and margin improvement. Moreover, **many companies have expressed a strong commitment toward shareholder value and dividend growth.**
- **Cost discipline:** In some cases radical improvements in productivity, personnel reductions, renegotiation of existing supply contracts, etc. have lowered operating and capital costs.
- **Cost transparency**: "All-in sustaining cash costs" have in the meantime become a benchmark.
- **Write-off or disposal of high-cost projects**: Numerous exploration and development projects have been sold or placed on care and maintenance. Balance Sheets have been strengthened.
- **Reserve grades have been raised.**
- Takeovers are no longer primarily financed with cash or debt, but in most cases by issuing shares.
- Numerous senior producers (e.g. Barrick Gold) keep stressing that they plan to dispose of non-core assets (especially in the base metals area) and will focus on gold and silver production.

<u>Conclusion</u>:

Companies which have survived the drastic events of the past four years are now resting on a solid foundation.[118] Efforts to improve operations have left producers leaner and will enable them to benefit to a greater extent from rising gold prices. Stronger balance sheets, rising free cash flows, higher margins and debt reduction are making us confident about the industry's long-term prospects. **In addition, there are few sectors in which the investment community is as underweighted as in the mining sector.** We consequently expect that mining companies and their long-suffering shareholders will finally reap strong rewards after several lean years.

[118] Note: these drastic events still lie ahead for many companies in the oil sector.

Last year we wrote: "*Market participants appear not to have realized yet that the margins of numerous gold mining companies have improved significantly of late. Since the sector's massive write-downs and value adjustments were one-off events, they could result in greater upside leverage. We therefore believe that gold stocks exhibit a strong asymmetric risk/reward profile at present.***" A foretaste of this asymmetric risk/reward profile and the greater leverage to a rising gold price has already been provided in the first few months of this year. Now the industry must keep the promises it has made in recent years so as to regain the trust of investors.**

In our investment process we are currently focused on developers and emerging producers. Based on the premise that gold is back in a bull market, we expect the gold-silver ratio to decline. **In this scenario especially good investment opportunities should emerge in silver mining stocks.**

10. TECHNICAL ANALYSIS

"Patience is power. Patience is not an absence of action; rather it is timing; it waits on the right time to act, for the right principles and in the right way."
Fulton J. Sheen

"It is impossible to produce a superior performance unless you do something different from the majority."
Sir John Templeton

A comprehensive analysis of the gold market definitely has to include an analysis of the technical picture as well. It is important in this context to focus exclusively on technical conditions in terms of price and market structure, and to make an objective assessment of those factors independent of one's view of the fundamentals. Sometimes technical analysis can lead an analyst to completely different conclusions than those suggested by his analysis of the fundamental data.

This is in fact what happened in last year's "In Gold We Trust" report, which included the following comment regarding technical conditions on the title page:

"From a technical perspective, the picture is not unequivocal. The downtrend hasn't been broken yet. However, pronounced negative sentiment indicates resignation among gold bulls. ***We believe a final sell-off is possible. During such a sell-off, the support at USD 1,140 could be tested.*** *A reversal following such a test would be a reliable indication of a primary trend change in the gold market."*

"Buy low and sell high. It's pretty simple. The problem is knowing what's low and what's high."
Jim Rogers

From a technical perspective, things looked at best mixed for gold at the time, while based on fundamental analysis, we thought that a resumption of gold's bull market was highly likely in the not-too distant future (even if not right away). As we have already indicated in the preceding chapters, we believe that the bear market ended in text-book fashion at the end of last year and that a new secular uptrend has begun.

We begin with a review of market sentiment. The consensus estimates of analysts always provide interesting insights – particularly for contrarians. As a bull market progresses, analysts will naturally tend to become more optimistic and vice versa. **If one looks at last year's gold price forecasts for the end of 2016[119], it appears as though analysts had lost their interest and faith in gold completely.** The average price target stood at USD 1,050. The lowest price target was set by Sal. Oppenheim at USD 950, while NordLB called for the highest target of USD 1,175. As a result of the bearish trend that prevailed over the past several years and a price decline of more than 40% from the peak, only very few positive analyst estimates were still in evidence. **Historically very good entry points often coincided with times when pessimism was at its most pronounced.**

"Those classes of investments considered "best" change from period to period. The pathetic fallacy is that what are thought to be the best are in truth only the most popular – the most active, the most talked of, the most boosted, and consequently, the highest in price at that time."
Fred Schwed

Scepticism expressed by the financial media reached a crescendo last year as well. As is fairly typical, bearish commentaries were coming thick and fast right at price lows. Here is a brief overview of the headlines of articles published at these junctures:

- *"How Low Can Gold And Silver Go?", Forbes, July 20th, 2015*
- *"An open letter to investors who are bullish on gold", Howard Gold, Market Watch, July 23rd, 2015*
- *"The gold price has been crushed, and that's the way it will remain", Business Insider Australia, July 25th, 2015*

[119] Forecasts as of early 2016 according to http://www.boerse.de/boersen-prognosen-2016/

- *"Gold's Outlook Isn't Shiny", Wall Street Journal, November 17th, 2015*
- *"Hedge Funds Boost Bearish Gold Bets to Record as Rate Rise Nears", Bloomberg, December 1st, 2015*
- *"Goldman Sachs Says It's Time to Short Gold", Fortune.com, February 16th, 2016*
- *"Gold overvalued, time to sell: SocGen", CNBC, February 29th, 2016*

"Where everybody thinks the same, not much thinking is going on."
Karl Valentin

As a result of the advance since the beginning of the year, analysts are now raising their price targets in the usual pro-cyclical fashion. According to Bloomberg the consensus target for year-end 2016 currently stands at USD 1,304. Thereafter gold is expected to move sideways until 2019. Such a development would appear extremely unlikely to anyone who actually studies market cycles. **In our opinion the combination of continued disinterest in gold and silver on the part of many investors and the unimaginative price targets picked by analysts continue to provide a strong basis for a continuation of the rally.**

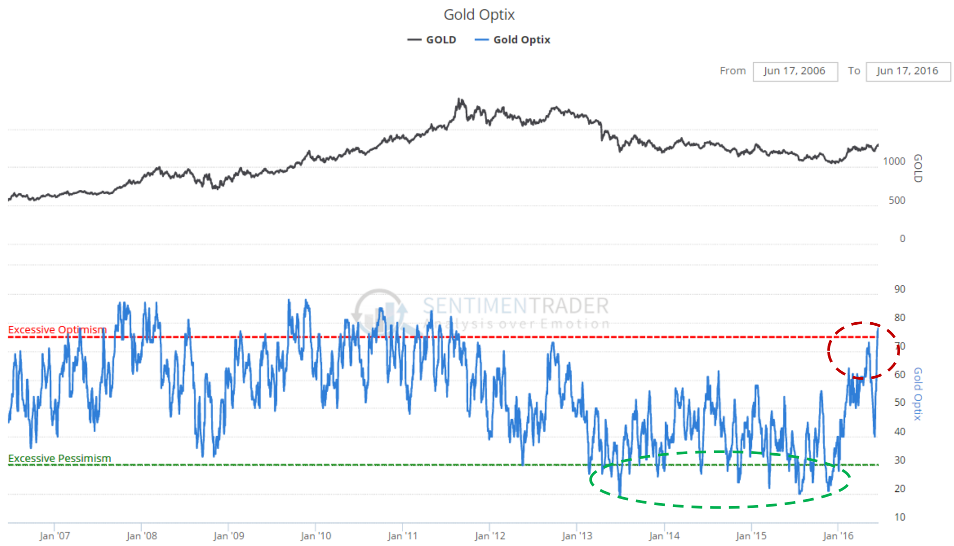
Bloomberg – analyst consensus for gold and silver: Q2 2016 – 2019

	Sent.	Spot	Q2 16	Q3 16	Q4 16	Q1 17	2016	2017	2018	2019
1) Gold $/t oz		1289	1260	1300	1304	1309	1263	1314	1325	1334
Forecast (Median)			1225	1225	1200	1198	1219	1200	1200	1201
Diff (Median - Curr)			-35.00	-75.00	-104.00	-111.00	-44.00	-114.00	-125.00	-133.00
2) Silver $/t oz		17.44	16.82	17.65	17.73	17.80	16.80	17.89	18.12	18.34
Forecast (Median)			15.80	16.00	16.00	15.25	15.65	16.15	16.50	18.00
Diff (Median - Curr)			-1.02	-1.65	-1.73	-2.55	-1.15	-1.74	-1.62	-0.34

Source: Bloomberg

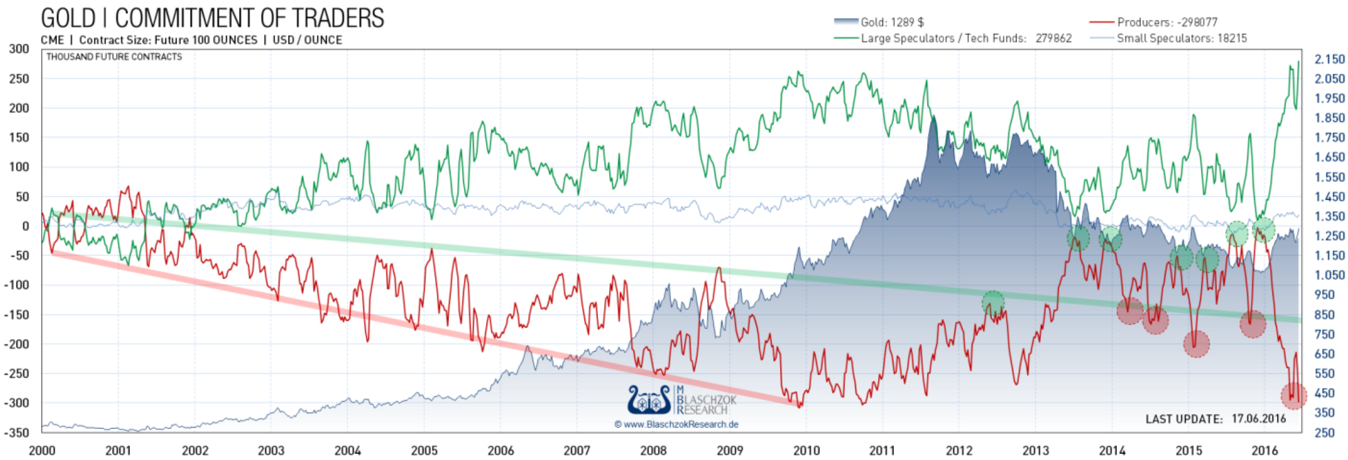
One of our favorite sentiment indicators is the Optimism Index (Optix) published by Sentimentrader. Its calculation includes data from the most prominent sentiment surveys as well as positioning data derived from the futures and options markets. Similar to other sentiment gauges, it has to be interpreted as a contrary indicator, i.e., high optimism readings have to be seen as negative and vice versa. As the chart shows, extreme pessimism predominated last year, but the winds appear to have shifted lately. ***In the short term* it seems as though optimism is already quite pronounced – based on this, a brief correction would not surprise us.**

Gold Optix



Source: Sentimentrader.com

If one looks at the current Commitments of Traders (CoT) report for gold, one can see that the net short position of commercial hedgers is at the highest level since October 2010.[120] Most analysts regard this as negative for the gold price. Although the current situation definitely signals that there is a growing danger of a correction, the interpretation of the report is not quite as simple and straightforward as many observers seem to assume.



Source: www.BlaschzokResearch.de

In order to arrive at a meaningful interpretation of the CoT data, one has to free oneself from the notion that the commercials are the sole representatives of the so-called "smart money". It would actually be more precise to call them largely neutral market participants, as most of the members of this group of traders are not speculating on future price changes at all. The group comprises inter alia producers, merchants and bullion banks, including arbitrageurs such as swap dealers. They are either hedging physical inventories or future production, or are counterparties in arbitrage deals such as carry trades or mine forward sales.

A meaningful analysis thus requires a more holistic approach to the interpretation of the data. The decisive factor in the analysis of the CoT report are the activities of speculators. Once their positions reach a significant extreme, as is presently the case, the market becomes vulnerable to a short-term counter-trend move, i.e. a correction, as speculators in futures markets usually follow strict technical rules in their trading, which tends to exacerbate the impact of their buying and selling when stops are reached. However, it is not enough to look at the above described situation in isolation, as the speculative position is mainly held by large speculators. A noteworthy detail is the positioning of small speculators, who are not overly enthusiastic about the recent rally just yet. **While their net long position has increased as well, it still remains well below the levels that prevailed during the strong uptrend from 2009 to 2011.**

Another important ingredient of a correct analysis is *open interest* – and in this context particularly the *speculative long position as a percentage of open interest*. This percentage was recently not greater than in 2001, this is to say in the year when gold's long-term bull market started. Market analyst Jordan Roy-Byrne is convinced that both open interest, as well as speculative net long positions, have to increase in a bull market.[121]

[120] See: Pater Tenebrarum: "Gold – The Commitments of Traders", Acting-man.com, May 11, 2016
[121] See: Roy-Byrne: "Misreading the CoTs, Again", Thedailygold.com, May 5, 2016

In summary it can be stated that the CoT report is often misinterpreted, as many people only look at the sheer numbers, without giving due consideration to the above mentioned concatenations. **Nevertheless, recent data do suggest that the probability of a short term correction is currently high.**

"Your best work involves timing. If someone wrote the best hip hop song of all time in the Middle Ages, he had bad timing."
Scott Adams

We have already pointed out in previous reports that gold exhibits pronounced seasonal trends. Traditionally June is an excellent time to buy. The upside momentum of gold and silver clearly tends to be strongest in the 2nd half of the year.

Seasonality of gold and silver (1970 – 2016)

Source: seasonax.com

a. Excursus: The Midas Touch Gold Model[122]

The Midas touch gold model has been developed by gold analyst Florian Grummes and represents a holistic approach to analyzing the gold market. Its goal is to analyze the market rationally from as many independent perspectives as possible and to derive simple short- to medium-term signals from the data. Although the model is based on a great many different underlying data, it is suitable for drawing up a comprehensive, compact and lucid analysis relatively quickly.

What exactly does the model consist of?

- **Trend following indicator based on the monthly chart:** This indicator has given a primary trend buy signal in February 2016 for the first time since November 2011, which remains in force.
- **Trend following indicators based on weekly and daily charts**: The model uses these inputs to determine shorter term trends.

[122] We want to thank our friend Florian Grummes for contributing this Excursus. Florian is the founder and managing director of Midas Touch Consulting (www.goldnewsletter.de). Our readers can obtain free updates as well as the associated newsletter at the following link: http://bit.ly/1EUdt2K

- **Volatility indicator:** The decisive point with respect to this indicator is that rising volatility primarily occurs in downtrends, while upward trends are most of the time associated with low volatility.
- **CoT data and sentiment**: With these two data series anti-cyclical signals are integrated in the model. While commercial hedgers hold an extraordinarily large net short position into a longer term comparison, overall current sentiment in the gold market can only be described as "minimally excessive optimism".
- **Ratios and changes in ETF bullion holdings**: Next a number of ratios are integrated in the model. Apart from classical ratios such as the Dow/gold ratio and the gold/silver ratio, it also includes the gold/oil ratio as well as the ratio of gold vs. other commodities. When gold clearly outperforms other commodities, it is likely driven by safe haven demand. On these occasions very steep, irrational price spikes can often be observed. The model moreover analyses changes in the bullion holdings of the largest and most important gold ETF, SPDR gold shares (GLD), on a bi-weekly basis as a proxy for investment demand.
- **Two trend following signals with respect to the gold price in terms of the yuan and the Indian rupee:** Together China and India now represent more than 50% of global physical gold demand.
- **Gold mining shares:** This indicator provides a trend following signal based on the price chart of the gold mining ETF GDX as well as the associated sentiment. Gold stocks often tend to lead the gold price (currently this is the case).
- **US dollar**: Lastly the model includes the performance of the US dollar and futures market positioning related to it, as well as the trend in US real interest rates.

Midas-Touch-Gold-Model™ as of June 25

Gold USD - Monthly Chart	$1,319.10	Buy Signal 02/08/16, reversal @ $1,092.26	Bullish		
Gold USD - Weekly Chart	$1,319.10	Buy Signal 06/15/16, reversal @ $1,203.85	Bullish		
Gold USD - Daily Chart	$1,319.10	Buy Signal 06/24/16, reversal @ $1,252.80	Bullish		
Gold Volatility CBOE Index	22.20	Buy Signal 06/01/16, reversal @ 19.19	Bullish		
Gold CoT-Report	-312,137	Record high commercial short position			Bearish
Gold Sentiment	67	Sentiment close to excessive optimism		Neutral	
Gold Seasonality	June	Statistically -0.351%, negative cycle until 2nd week in July			Bearish
Ratio DowJones/Gold	13.19	Buy Signal 02/05/16, reversal @ 16.56	Bullish		
Ratio Gold/Silver	74.02	Buy Signal 04/12/16, reversal @ 78.41	Bullish		
Ratio Gold/Oil	27.73	Sell Signal 03/07/16, reversal @ 29.41			Bearish
Ratio Gold/Commodities (GNX)	3.57	Sell Signal 03/14/16, reversal @ 3.60			Bearish
SPDR Gold Trust Holdings (GLD)	934.31	Plus 38.02t during last two weeks, ETF demand very strong	Bullish		
Gold in $, €, £, ¥	3 out of 4	Up against $, €, and £, down against ¥ over 1 month		Neutral	
Gold in Indian Rupee	89,284₹	Buy Signal 06/24/16, reversal @ 83,888	Bullish		
Gold in Chinese Yuan	8,713.3¥	Buy Signal 06/24/16, reversal @ 8,206.7	Bullish		
GDX Goldminers - Daily Chart	$26.71	Buy Signal 06/24/16, reversal @ $24.80	Bullish		
GDX Goldminers Sentiment	79	Sentiment showing signs of excessive optimism			Bearish
US-Dollar - Daily Chart	95.57	Sell Signal 06/24/16, reversal @ 93.03			Bearish
US-Dollar CoT-Report	-13,195	Commercial short position at neutral levels		Neutral	
US Real Interest Rate	-0.235%	3-month T-bill yield (0.27%) - change in the CPI (0.505%)	Bullish		

Source: Midas Touch Consulting, Florian Grummes

Overall the model has proved very useful so far. While a sell signal was in force for most of 2015, the model switched to a buy signal in early 2016. The difficult-to-trade sideways move beginning in mid-February was recognized in a timely manner with the model shifting to a neutral signal.

Currently the Midas Touch Gold Model is on a buy signal and indicates a further advance in the gold price. Prices would have to decline below USD 1,225 in order to alter the model's current positive bias. **In terms of its**

primary trend gold is likely already on the way to the important resistance level near USD 1,500. The rational approach of the model should serve investors very well in the new precious metals bull market.

End of the Excursus

<u>Conclusion of our technical assessment:</u>

The analysis of market structure, sentiment and price patterns leads us – contrary to last year – to a clearly positive assessment of the technical picture. In December a double-bottom formed at USD 1,046, a level which we believe represents the low of the bear market. If one examines the following price chart, it can be seen that relatively little technical resistance is lying in wait up to the former major support level around USD 1,530. A rally would therefore encounter little opposition and could be relatively rapid. More specifically, a sustained move above USD 1,300 could trigger a further advance toward the USD 1,530 level.

Gold and MACD

Source: Investing.com

From a sentiment and futures positioning perspective we wouldn't be surprised if a short term correction were in store. However, we don't expect a very deep correction, since it appears as though many potential buyers are waiting on the sidelines, eager to buy dips. Relative strength in silver and mining stocks gives us confidence as well. Positive seasonality in the second half of the year should also provide a tailwind. **All in all, conditions for the new bull market to become firmly established appear to be quite favorable from a technical perspective**.

11. CONCLUSION

"In the middle of a jolly summer party, sensitive people begin to shiver"

Roland Baader

Since the "narrative of a healing economy" has been extensively discussed in this report, we should ask: *Who are the healers? Are they even capable of healing? What medicines are at their disposal, and do we know all the possible side effects?*

"The illusion of central bank control is in full force."
Dylan Grice

The relationship between economists and the economy is in many ways reminiscent of that between physicians and their patients. Many economists make diagnoses about the economy's state of health and recommend courses of action; economists responsible for (monetary) policy are implementing a substantial part of the treatment. With respect to this self-image, German top economist Hans-Werner Sinn gets to the heart of the matter by noting: *"Economists warn of dangers which others are not yet aware of. After all, one also expects a physician to advise one of potential dangers after a blood test. Both in medicine and in economic science, ringing the alarm is in the nature of the job."*[123]

"Power is the capability not to have to learn."
Karl Deutsch

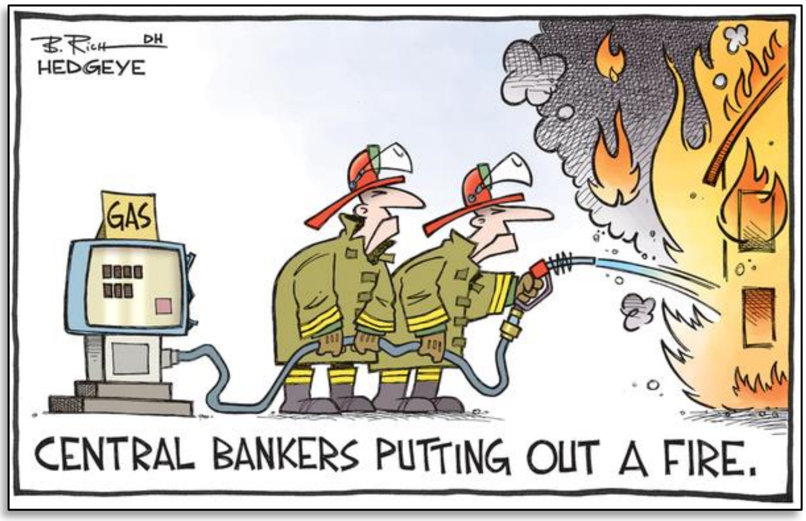
The economy and the human body do indeed have something important in common: Both are complex adaptive systems imbued with the relevant properties.[124] However, while there is a broad empirical basis for medications prescribed by physicians, which provides information about the side effects that have to be expected under certain conditions, economists rely on a far thinner empirical foundation. Monetary policymakers would therefore be well advised to abide by the ethical principle of medicine attributed to Hippocrates: *"Primum non nocere, secundum cavere, tertium sanare"*[125] – before prescribing a treatment, a physician should primarily see to it that the patient isn't harmed, and moreover carefully investigate what actually ails him. **Rushed, naïve interventionism can do more damage than refraining from interference ("iatrogenic damage").**

While this insight has only slowly found acceptance in medicine, it hasn't even appeared on the scene yet in other areas – such as in economics. Take monetary policymakers as an example, a common feature is their pronounced lack of sensitivity with respect to harmful side effects brought about by its policies. **Loose monetary policy was already the root cause of the unsustainable boom of the 2000s. The crisis that inevitably came as a result was met with even more radical interventions; such as various forms of quantitative easing programs, zero and negative interest rate policies and so forth, all which have hampered the economy's self-healing powers and have made the system dependent on continual injections of credit.** As a matter of fact, every recession of the recent past has been met with ever bolder policy actions. No wonder structural imbalances have grown ever larger and more destructive. It has simply become too risky not to intervene anymore as decades of imbalances unraveling would end the system as we know it. In the meantime, populism

[123] See: "Löhne nicht hochzwingen" (*"Do not force wages up"*), *taz*, April 29, 2016
[124] E.g. non-linearity, emergence, self-organization or the central importance of individual elements – such as molecules, cells or individuals – which are interacting with each other
[125] Latin for "First, do no harm, second, be careful, third, heal". A principle which the Hippocratic tradition puts at the center of its demand of ethical behavior by medical practitioners.

is rising and risks are increasing. Suppressing risk has the paradoxical effect of actually increasing it.

Phenomena like asset price inflation, chronic over-indebtedness and ever more extreme boom-bust cycles, which can be attributed to the fragile interaction between inflation and deflation, are becoming more frequent. All these phenomena are **symptoms of a problem with a systemic root cause**. In our opinion, the centrally planned monetary system in its current state is a case for palliative care.



Source: Hedgeye

Below we want to summarize what this means specifically for gold and its future trend:

1. *Growing uncertainty regarding economic and political developments is boosting the gold price*

The current environment is unprecedented in history, characterized by a cluster of never before seen extremes:

- **Debt levels** continue to grow relentlessly and have by now reached dizzying heights
- **Political tensions** are increasing, the euro zone is ailing, there seems to be no end to the refugee crisis, Islamist terrorism is expanding globally, and on top of everything, the Brexit has become reality as well (with likely spillover effects to secessionists and nationalists across the continent)
- **The global economy exhibits only modest growth** and could be set to slow even further in light of the uncertainties attending the Brexit
- This weakening of economic momentum occurs in the wake of what has undoubtedly been the greatest global monetary stimulus orgy in history
- **Central bank balance sheets and the money supply have grown at a pace previously only seen ahead of periods of pronounced inflation or even hyperinflation**
- Since the bankruptcy of Lehman Brothers, 654 interest rate cuts have been implemented worldwide and central banks have purchased assets in the amount of USD 12.3 trillion (each central

bank that attempted to raise rates in the recovery period was later forced to backtrack and rates usually ended up much lower than the level from which they started the tightening cycle)

In this unprecedented situation, risk mitigation strategies based on historical data can easily fail. Investment portfolios should be analyzed with respect to their susceptibility to possible stress scenarios, with their fragility or anti-fragility serving as an analytical compass. For example, supposedly safe government bonds, which can no longer provide any appreciable positive returns in the foreseeable future, appear potentially quite vulnerable in light of the debt trap. It is held that while stock markets may be more volatile, they at least remain in a long-term upward trend. There have nevertheless been decades-long periods during which this popular asset class hasn't gone anywhere in nominal terms, while generating large losses in real terms (this happened e.g. in US stocks between 1966 – 1982 against the backdrop of a weak, stagflationary economy). In view of the artificial nature of the current extremely high level of stock prices, we are very skeptical regarding lures such as "dividends can replace interest income".

"By failing to prepare, you prepare to fail"
Benjamin Franklin

***"Savers can not only deposit their money in savings accounts, but have other opportunities as well"*, Mario Draghi recently opined (as cynical as that may sound).[126] We have presented Harry Browne's Permanent Portfolio in this report, a historically robust investment strategy which can help one to escape from this dilemma.**

2. *Brexit: More economic and monetary stimulus programs to counter the disintegration of the EU should be expected*

The consequences of the Brexit are not foreseeable yet as we do not know what kind of deal the UK will secure with the EU. Could the UK, or England, become a Hong Kong of Europe? Or will they be an isolated and insignificant rock in the Atlantic Ocean? It is thus obvious that these consequences will be highly dependent on the course of action the various parties to the process decide to take, and how the negotiations are conducted. The EU will in all likelihood have to deal with other member countries pondering an exit, particularly if the Brexit turns out to be favorable for the UK. It will be decisive whether EU policymakers continue their policy of intensifying European integration, centralization and bureaucratization, or if they see the Brexit as a warning shot and opt to reconsider power-sharing between the EU and national parliaments.

"The country that dares to be the first to break away from the global monetary policy phalanx and is prepared to bear the consequences of an investment in a stabilization crisis and permits the implementation of sustainable structural reforms, will emerge as the winner from this negative-sum game"
Norbert F. Tofall

It appears highly likely that a lot of pressure will emanate from southern EU member states, where a lot of resentment is simmering due to the imposition of "German austerity dictates". A strong performance of anti-austerity parties in Portugal, Italy and recently Spain substantiates this view. **A further loosening of monetary policy, as well as fiscal injections – e.g. in the form of infrastructure programs via the European Investment Bank (EIB) or in the form of helicopter money ("QE for the people") – could definitely be in the offing.**

3. *The US economy is softening, the planned normalization of the Fed's interest rate policy is about to fail; an economic worldview is crumbling*

[126] See: "Die Sparer haben es selbst in der Hand" ("Savers have it in their own hands"), Handelsblatt.com, April 28, 2016

The US plays an important symbolic role in the post-Lehman economy. The Fed has been most determined in the implementation of extreme monetary policy measures in the wake of the financial crisis and has been able to boost consumption and economic output again – not least by creating yet another asset price bubble. Lukewarm growth has been talked up sufficiently to create a widespread narrative of a US recovery, which has been achieved by applying (Neo-)Keynesian economic policy.

The Fed is now in the process of cautiously pioneering monetary policy normalization by exiting from its monetary emergency programs. Interest rates are to be slowly raised to normal levels again – and after much ado, a first gentle, but highly symbolic rate hike was finally implemented in December 2015.

Confidence in the recovery of the US economy and the (expected) tightening of monetary policy have led to a strengthening of the US dollar in recent years. This has weighed on commodity prices, as well as on the price of gold. The US precedent moreover appeared to confirm the curative properties of Keynesian economic policy, which has put pressure on the gold price as well. **A failure of the planned normalization of US interest rates could therefore collapse the laboriously built up narrative of the economic recovery. This would increase uncertainty enormously, as faith in the salutary powers of the administrators of the monetary system is firmly tied to this narrative.**

4. *If the dollar weakens further and commodity prices continue to increase, rising price inflation and stagflation threaten*

Ceteris paribus, the dollar tends to weaken once a rate hike cycle ends. The weakening of the euro in the wake of the Brexit is now raising a question mark with respect to this tendency. **However, the fact remains that in the medium term neither the US economy, nor China, which is tied to trends in the dollar through the renminbi's "crawling peg", are able to tolerate a strong dollar.**

Consumer price inflation could moreover easily come to life in the face of falling confidence in the currency and rising commodity prices. In combination with faltering growth, the economy could even head toward stagflation.

5. *Gold investment on the part of institutional investors is about to experience a renaissance in the uncertain low interest rate environment*

Central banks are skating on ever thinner ice; they are **effectively stuck in a lose-lose situation:**

- **Continuing low interest rate policies is distorting the economy structurally, drives pension funds and insurers to the brink of ruin and boosts asset price bubbles further;**
- **Discontinuing the low interest rate policy risks a credit contraction, resp. a recession**

In altogether five currency areas, monetary stimulus has in the meantime been carried to an extreme, by the attempt to create even more stimulus through the imposition of negative interest rates. In order to create additional leeway for this particular policy, ideas such as a cash ban have become topics of serious debate. **The prospect that negative interest rate policy will succeed is negligible though. Clearly negative rates make it easier**

to service outstanding debt, but they also make structural economic problems even worse. Neither economic growth, nor rising consumer price inflation should be expected as a result. **Gold will however benefit from the shrinking universe of attractive investment alternatives.**

Source: Hedgeye

6. *The economic environment is not only positive for gold, but also other inflation-sensitive assets, such as silver or mining stocks*

The monetary system is like a fragile house of cards without vibration isolation, standing on the shifting tectonic plates of inflation and deflation. Chronic indebtedness and systemic dependence on cheap money force central banks to build an ever larger house of cards on top of the shaky foundation of last interventions (*inflation imperative*). This steadily increases the fragility – and this fact is slowly beginning to be appreciated by market participants.

Source: Hedgeye

"Let's not beat around the monetary bush, one of the main aims of QE is to drive down one's currency to gain a competitive advantage without overtly doing so."
Albert Edwards

This environment is generally not only positive for gold, but also for the prospects of other inflation-sensitive assets. The mining industry has gone through a corrective crisis, from which the remaining companies have emerged leaner and stronger. In the course of this market adjustment new priorities have been set, and companies have made a commitment to focus on profitability, capital discipline and shareholder value. Now the industry has to deliver on these promises in order to regain the trust of investors. **The impressive rally in the first several months of 2016 has already hinted**

at the possibilities – and mining stocks still appear to be quite undervalued. After the sector's restructuring, it is very likely that mining stocks will once again exhibit attractive gold price leverage.

7. *Gold is back, a new bull market is coming into view*

Gold has delivered the strongest quarterly performance in 30 years in the first quarter of 2016. Many technical indicators and sentiment gauges suggest that gold has gone through a classical cycle, which reached its low point last year amid maximum pessimism with a final wave of panic selling.

8. *Incrementum confirms the long term price target of USD 2,300 by 2018*

Our analysis confirms the view we have already expressed in last year's report: A significant advance in the gold price is to be expected.

Our price target of USD 2,300 for June 2018 may appear ambitious. We are firmly convinced though that systemic problems will increasingly lead to a critical reassessment of the current monetary order. **In the event of such a paradigm change, a significant upward revaluation of gold seems highly probable.**

APPENDIX – ABOUT US

Ronald-Peter Stoeferle, CMT

Ronald is a managing partner and investment manager of Incrementum AG. Together with Mark Valek, he manages a global macro fund which is based on the principles of the Austrian School of Economics.

Previously he worked seven years for Vienna-based Erste Group Bank where he began writing extensive reports on gold and oil. His benchmark reports called 'In GOLD we TRUST' drew international coverage on CNBC, Bloomberg, the Wall Street Journal and the Financial Times.

During his studies in business administration, economics and finance at the Vienna University of Economics and the University of Illinois at Urbana-Champaign, he worked for Raiffeisen Zentralbank (RZB) in the field of Fixed Income/Credit Investments. After graduation, he participated in various courses in Austrian Economics and obtained a Chartered Market Technician (CMT) and a Certified Financial Technician (CFTe) designation. Next to his work at Incrementum he is a lecturing member of the Institute of Value based Economics and lecturer at the Academy of the Vienna Stock Exchange.

Mark J. Valek, CAIA

Mark is founding partner and investment manager of Incrementum AG. Together with Ronald Stoeferle he manages a global macro fund, which is based on the principles of the Austrian School of Economics. In 2014 he co-authored a book on Austrian Investing.

Before founding Incrementum he worked at Raiffeisen Capital Management for more than ten years. There he was fund manager and responsible for inflation protection strategies and alternative investments. During his studies Mark worked in equity trading at Raiffeisen Zentralbank and at Merrill Lynch Private Banking in Vienna and Frankfurt.

Mark's education includes a degree in business administration from the Vienna University of Economics and Business Administration. He is CAIA charterholder and Certified Portfolio Manager. Next to his work at Incrementum he is a lecturing member of the Institute of Value based Economics and lecturer at the Academy of the Vienna Stock Exchange.

About Incrementum AG

Incrementum AG is an owner-managed and fully licensed asset manager & wealth manager based in the Principality of Liechtenstein. Our business focus is the management of investment funds that we believe to be unique.

What makes us exceptional in the traditional asset management space? We evaluate all our investments not only from a global economy perspective but taking the current state of the global monetary regime into account. This analysis produces what we consider a truly holistic view of the state of financial markets. We believe our profound understanding of monetary history, out-of-the-box reasoning and prudent research allows our clients to prosper in this challenging market environment.

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