Incrementum Liechtenstein

In GOLD we TRUST 2013 *– Extended Version*

Even though the consensus is convinced that the gold bull market has ended, we remain firmly of the opinion that the fundamental argument in favor of gold remains intact. There exists no back-test for the current financial era. Never before have such enormous *monetary policy experiments* taken place on a global basis. **If there ever was a need for monetary insurance, it is today.**

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All prices are closing prices as of 24 June 2013

In the course of the recent gold crash, the market has once again demonstrated its tendency to *maximize pain*. Massive technical damage has been inflicted. We are convinced that repairing the technical picture will take some time. Accordingly $1,480 is our 12-month target.

We think that the correction that began in September 2011 exhibits strong similarities to the mid cycle correction of 1974 to 1976. That phase was similar to the current one, especially with respect to the marked disinflation backdrop, the presence of rising real interest rates and extreme pessimism regarding gold-related investments.

Since 2008 there have been more than 500 interest rate cuts around the world. Non-standard monetary policy measures seem to have become standard procedure. Tapering and exiting from QE might be more difficult than market participants currently envision.

Due to the high levels of debt, nominal interest rates must remain near zero and real interest rates negative, providing a solid foundation for future gold price increases.

The gold mining industry is currently going through a major period of change. It appears as though the industry is in the process of altering its priorities. We believe that the new commitment to transparent cost reporting, greater financial discipline and shareholder value is a crucial – if quite late in coming – insight by the sector. **From a sentiment perspective, gold mining stocks are probably "the ultimate contrarian play"**.

This gold report is the first in which we offer a quantitative model of the gold price. The model justifies a considerable risk premium to the current price, although only small probabilities of occurrence of extreme scenarios have been factored in. **Based on our conservative assumptions, we arrive at a long-term price target of $2,230.**

Due to the clearly positive CoT data as well as extremely oversold conditions, we assume that a bottoming process will soon begin. Regarding the sentiment situation, we see anything but euphoria in gold. Skepticism, fear and panic never signal the end of a long term bull market. **We therefore judge that our long-term price target of $2,300, first stated several years ago already, continues to be realistic.**

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This publication is based on "Goldreport 2013" which has been prepared for Erste Group Research (Erste Group Bank AG) and contains additional information. The author, Ronald-Peter Stöferle, is an external advisor to Erste Group Research. The comments in this report are solely those of Mr. Stöferle. He is currently Managing Director of Incrementum AG, Liechtenstein (www.incrementum.li). The views contained in this report regarding particular companies and market sectors are the views of the author alone, and are not necessarily those of Erste Group. **Please refer to the Disclaimer at the end of this document.**

1. INTRODUCTION

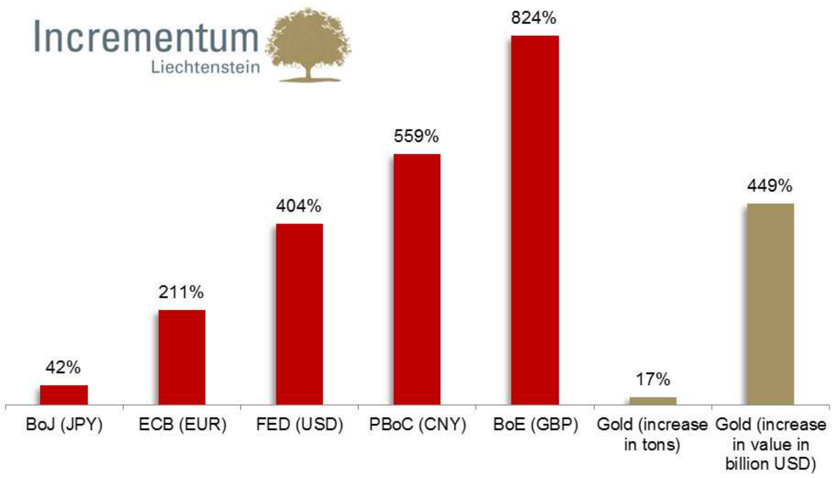
„We forget that Mr. Market is an ingenious sadist, and that he delights in torturing us in different ways.“
Barton Biggs

"…there is no record in the economic history of the whole world, anywhere or at any time, of a serious and prolonged inflation which has not been accompanied and made possible, if not directly caused, by a large increase in the quantity of money.
Gottfried Haberler

The crash has demonstrated that the market tends to inflict maximum pain on gold investors. On two days, the cascading price collapse beginning in mid-April exhibited a standard deviation of more than five – an event that (if one believes in normal distribution in financial markets) occurs once every 5,000 years.[1]

How has the general monetary climate changed since our last gold report? **The current QE program is the most massive put ever written by Ben Bernanke.** Both the extent of the current asset purchase program as well as its temporal horizon are unlimited. The Bank of Japan's policy is also increasingly expansive and will double the monetary base over the next two years in order to produce an inflation rate of 2%. Relative to economic output, Japan's QE package in the amount of 7.5 trillion yen per month is approximately twice as big as that of the US. If one adds up the monthly (!) QE amounts in the US and Japan, assets amounting to $160 billion are being bought with newly created central bank money. By way of comparison, this equates to far more than the *annual* gold production by mines, which is currently valued at $125 billion (2,700 tons).

Change in Central Bank Balance Sheets 2002 vs. April 2013 + Gold (increase in tons and value)



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

"In order to gain insight into the smallest part, it is necessary to have an overview of the whole"
Johann Wolfgang von Goethe

"QE directly removes duration risk from the market, and unwind it would add such risk. If aggressive QE were to cease, there would be a sharp drop in bond, equity and home prices."
Paul Brodsky

As readers of our annual Reports know, contrary to most other analysts, we primarily regard gold as a monetary commodity. In our by now 7th "In Gold We Trust" report we want to take a sober look at the data and perform a ***holistic analysis of the gold sector.***

Today the main factor influencing financial markets seems to be the anticipation of central bank actions. Historical market patterns have been radically altered over recent years. Since 2009 the Fed has reacted to every economic slowdown by introducing fresh easing measures, so that a paradoxical situation can be observed by now: disappointing macroeconomic data lead to price increases in stocks, as a continuation, respectively expansion of the QE program is priced in. Better than expected

1) Purely on a statistical basis the next crash should therefore occur on May 17, 6789 – see also "Gold and the Eight Standard Deviation Move", Russell Rhoads, CBOE Options Hub

macroeconomic data on the other hand lead most of the time to price declines, as a reduction of future QE is anticipated.

Money Supply Expansion by now More Important for the S&P Index than Corporate Profits

Prior to the beginning of QE1, the historic correlation between the balance sheet of the Federal Reserve and the S&P 500 Index was 20%. Since 2009, this correlation has increased to 86%.[2] The expansion of the money supply thus has had a bigger effect on the stock market than the trend of corporate profits. This relationship has been acknowledged by the Federal Reserve who argued in a study that, absent intervention by the central bank, the S&P 500 would be 50% lower.[3]

"***Panics do not destroy capital; they merely reveal the extent to which it has been previously destroyed by its betrayal into hopelessly unproductive works***"
John Stuart Mills

The reason for this behavior is the so-called *'Greenspan Put'.* It describes the fact that a general decline in asset prices (e.g. stocks, real estate) impairs consumption and thereby triggers economic crises. As a countermeasure, the central bank is supposed to counteract such situations by means of expansive monetary policy measures. Since stock market traders rely on these interventions on the part of the central bank, the implicit insurance by the Fed has been labeled the *'Greenspan Put'.* In order to stimulate economic activity, the Fed once again relies – as it has already done in the previous US economic cycle – on the so-called 'wealth effect'.

Moral Hazard Leads to Higher Risk Appetite

This results in an increase in 'moral hazard'. The term originally stems from the insurance industry. It describes the phenomenon that people that have fire or car insurance are actually taking less care to avoid damages than those who are uninsured. Negative consequences respectively costs of human action are not borne by the acting persons themselves, but are transferred to third parties (in this case insurance companies). The insured are even made whole (or partly made whole) for their own misbehavior, while profits from their own actions are exclusively retained by the actors themselves. This attitude can be observed in all kinds of spheres of life. According to Jill Fredston, an expert on avalanches, better safety equipment tempts mountaineers and ski tourers to engage in more risky behavior – and thus makes them de facto less safe[4].In further consequence this creates systemic incentives to act at someone else's expense[5.] **Financial participation in the form of retentions can provide a remedy for moral hazard.**

2) Breakfast with Dave, David Rosenberg, Gluskin Sheff and Associates Inc.
3) http://www.moneynews.com/Economy/fed-stock-prices-lower/2012/07/13/id/445266
4) The Most Important Thing: Uncommon Sense for the Thoughtful Investor", Howard Marks
5) Prof. Dr. Thorsten Polleit, Degussa Marktet Report, 7. December 2012

2. ASSESSMENT OF THE CURRENT CORRECTION AND THE MOST RECENT EVENTS

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

After our price target of $2,000 formulated last year was clearly missed, we must engage in self-criticism. We therefore want to analyze the reasons for the weakening of the gold price.

a) Reasons for the current correction of the gold price

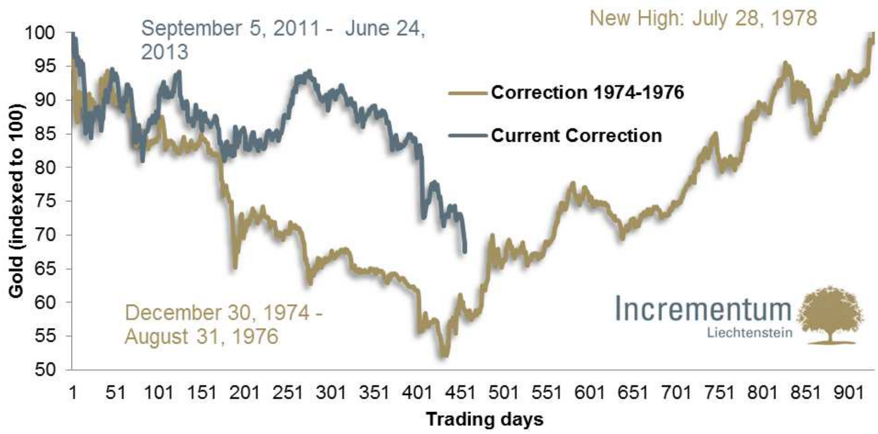
The following factors were, respectively are, decisive for the weakness of the gold price[6] :

- Disinflation[7]
- the outlook of QE being tapered and eventually exited
- rising real interest rates
- partly declining money supply (especially ECB)
- record high short positions
- backwardation since April 5, which has intensified
- rising opportunity cost of owning gold due to the rally in stocks
- ETFs: the majority of the outflows were from the SPDR gold trust ETF, and thus probably mainly initiated by US investment managers who are turning away from gold in order to switch into the rallying stock market [8]
- tightening credit spreads
- cascading sell orders by trend-following systems, CTAs, managed futures accounts, etc., as the technical support level of $1,530 was violated
- increasingly negative analyst opinions (among others, Goldman Sachs, Credit Suisse, Société Générale,...)

Even though the consensus currently assumes that the gold bull market has ended, we are of the opinion that the fundamental case continues to be intact, more than ever. We believe that the correction that has been in train since September 2011 exhibits strong similarities to the mid cycle correction of 1974 to 1976. **That period is similar to the current one specifically on account of marked disinflation, rising real interest rates and extremely high pessimism regarding investment in gold.**

6) the often cited (alleged) sale of the Cypriot gold reserves amounting to ten tons is definitely *not* relevant
7) Disinflation is a bad environment for gold, deflation (measured as a negative rate of price increases) and rising rates of price increases are the best environment: between 1971 and 2012 the monthly correlation between the gold price and the rate of inflation was at 0.46. In the highly inflationary period from 1978 to 1982 it was however at 0.89. That explains the weak performance of gold during the mid cycle correction 1974-1976 as well as in recent months.
8) ETF sales were however an effect of the price decline rather than a reason for it.

Mid Cycle Correction 1974 to 1976 vs. Current Correction (indexed to 100)

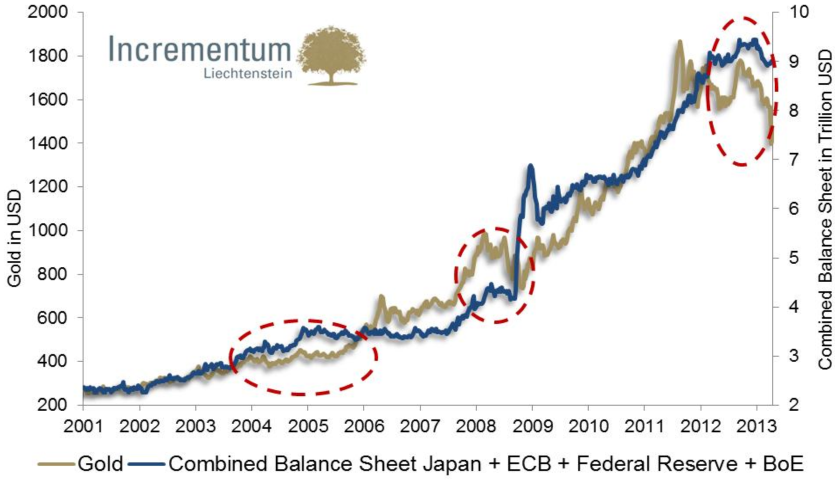


Source: Datastream, Incrementum AG

Monetary Disinflation by ECB and BoE were only partially compensated by Fed and BoJ

A slight monetary disinflation can be discerned in the following chart. It shows the combined balance sheet totals of the Federal Reserve, the ECB, the Bank of England and the Bank of Japan. Since the money supply has decreased in the euro zone and the UK (which has however been partially compensated by the Fed and the Bank of Japan), this may also have had an effect on the gold price.

Combined Balance Sheet Totals Fed+ECB+BoE+BoJ in USD trillion

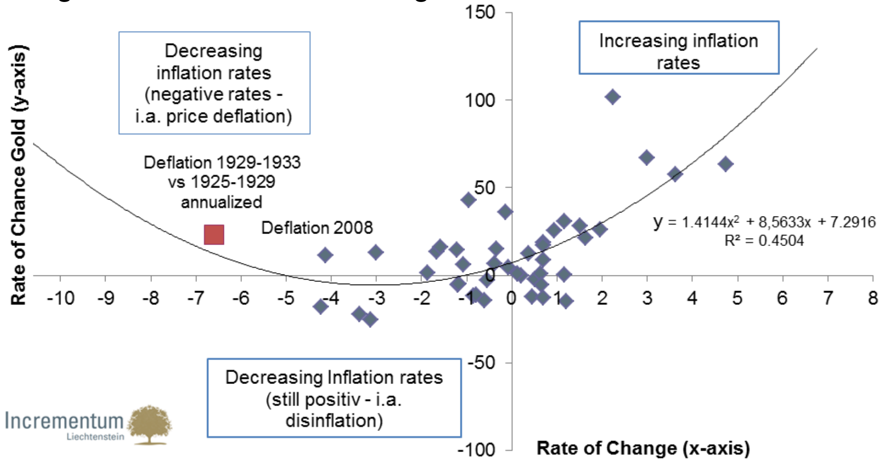


Source: Bloomberg, Datastream, Incrementum AG

Gold Doesn't Correlate with Inflation Rates, But With the Change in Inflation Rates

Many analyses attest to gold's inflation hedging characteristics. There are however also a great many critical voices that opine that gold and inflation rates show no statistical correlation, and that its usefulness as an inflation hedge is therefore a fairy tale. We have looked into this question and are of the opinion that it is important to establish the following connection: **gold doesn't correlate with inflation rates, but with the <u>change</u> in inflation rates. In order to buttress this hypothesis we have calculated the following regression.**

Change in Inflation Rate vs. Change in Gold Price



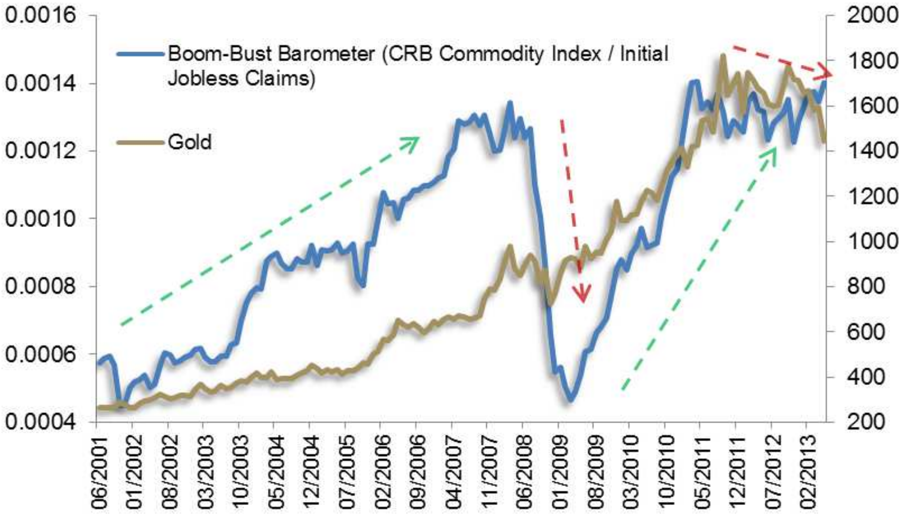
Source: Incrementum AG, Fed St. Louis

Explanatory note: the regression is based on annual data since the end of the Bretton Woods agreement in 1971. However, the data point in red is not part of the regression calculation. It only serves as an illustration of the situation in the time period prior to 1971 when the last significant move in the gold price has occurred. In our opinion, the data point fits astonishingly well into the regression curve and **supports the thesis that gold tends to exhibit a nominally positive trend during periods of price deflation. Disinflation periods (this is to say, declining inflation rates still in positive territory), which we are currently experiencing, are therefore <u>the worst possible environment for gold</u>.**

"We conclude that, under a paper-money system, a determined government can always generate higher spending and hence positive inflation"
Ben Bernanke

The current predominance of disinflationary, respectively deflationary forces, can be gleaned from the following illustration. It shows a ratio between commodity prices (the CRB index) and initial jobless claims (left hand scale) as well as the gold price in comparison thereto (right-hand scale). **A rising boom/bust ratio indicates expansionary economic periods, while a falling ratio illustrates deflationary pressures.**

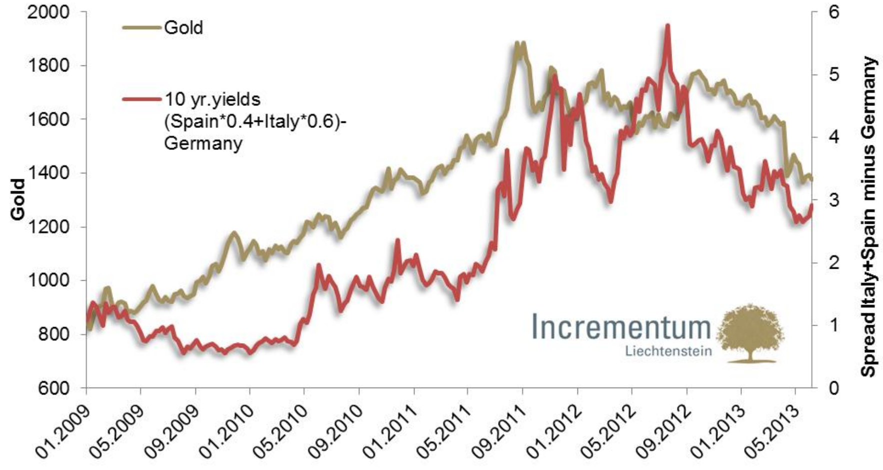
Boom-Bust Barometer (CRB Commodity Index / Initial Jobless Claims) vs. Gold



Source: Incrementum AG, Bloomberg, Datastream

The next chart shows that the price of gold is suffering from the (temporary) return of confidence in the euro zone. The yield spread between Italian and Spanish[9] relative to German government bonds has been declining markedly for several months and is currently at the lowest level since May 2011. **That signals that tail risks in the euro zone have lately been priced out.**

Spread Between Italy & Spain over Germany versus the Gold Price

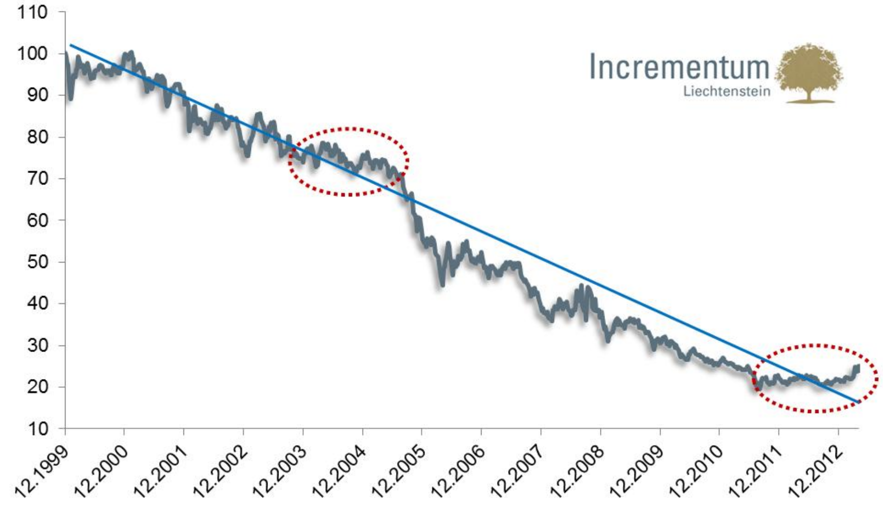


Source: Erste Group Research, Incrementum AG, Datastream

Fiat Currencies Relative to Gold Still in a Downtrend, Currently However Above the Trendline

The long term downtrend of most currencies relative to gold can be discerned from the following chart. The downtrend of the equal-weighted currency basket[10] has however recently flattened and moved away from its trendline. **A similar phase was already in evidence in 2003 and 2004. Nevertheless, one must definitely keep an eye on the relative weakness of gold versus the basket.**

Currency Basket Measured in Terms of Gold: Long Term Downtrend Intact, Currently However Bottoming?



Source: Datastream, Incrementum AG

9) GDP-weighted, i.e., Italy with a 60% and Spain a 40% weight.
10) the basket consists of: US dollar, euro, Swiss franc, Japanese yen, Renminbi, Indian Rupee, British pound, Canadian dollar and Australian dollar

a) Paper Gold versus Physical Gold

Gold price vs. price of gold

The April crash showed how important it is to differentiate between the 'gold price' and the 'price of gold'.[11] The gold price refers most of the time to the price of a gold futures contract, e.g. at the COMEX. The price of gold by contrast is the price one must pay if one wants to buy physical metal.

These spot and futures prices are connected via arbitrage and for that reason can not, in principle, move diametrically away from each other. Nevertheless, an understanding of the link between these two markets is necessary to correctly interpret events in the markets. In the present environment, there are for example considerable mark-ups, supply bottlenecks in the physical (cash) market.

Many aspects of the April crash were unusual. **For the first time, record high, anti-cyclical demand in the physical market could be observed <u>on a global basis</u> in the course of a large price correction:**

- the US Mint's sales soared to 210,000 ounces in April (+950% compared to a year ago, resp. a tripling compare to March)
- premiums for gold in Hong Kong rose to the highest level in two years
- China's gold imports from Hong Kong rose to an all-time high of 223 tons
- in India, physical demand rose to an all-time high in April (+138% y-o-y)
- dealers in Europe, but also in Australia or the US reported supply bottlenecks

"The relevance of gold is not in its price but in its ownership. This is precisely important for those who wish to make a profit from gold by purchasing certificates, ETFs and the like. Participating in a price movement is not the same as owning an asset. "
Anthony Deden

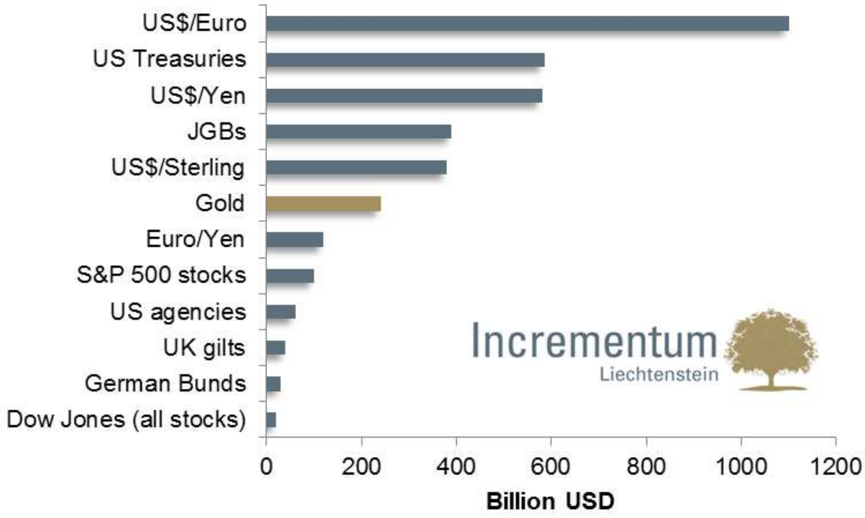
The true importance of gold lies in its possession, not its price. A gold price decline or increase by 5% barely has an effect on physical possession, since probably only a share amounting to tenths of a percent of the total available stock changes ownership. **The paper market by contrast consists of countless promises issued by a vast variety of counterparties.** One should therefore refrain from equating participation in a price movement with ownership of an asset. There is for instance a fundamental difference between ownership of a cattle futures contract and being a farmer who raises cattle.[12]

Gold is one of the most liquid investment assets in the world - daily trading volume at the LBMA amounts to $240 billion

The paper gold market has grown exponentially in recent years. Originally it was created to help miners to hedge and mine developers to finance the development of mines. In the meantime the paper gold market has become one of the most leveraged markets. According to an LBMA study[13], **total trading volume in 2011 amounted to 50 billion ounces. That is 600 times annual production.** According to the study, 10.9 billion ounces of gold worth a total of 15,200 billion dollars were traded in the first quarter of 2011. That equals 125 times annual production, or twice the entire amount of gold ever mined.[14] 240 billion dollars in trading volume per day amounts to more turnover than in most currency pairs. **Insofar, gold is one of the most liquid investment assets in the world.**

11) "Things that make you go Hmmm...", Grant Williams, April 22 2013
12) „Gold: an objective look at subjective value", Anthony Deden, Gold Money Foundation
13) LBMA gold turnover survey for Q1 2011, The Alchemist
14) Probably the amount is even higher, as not all LBMA members took part in the survey

Daily Trading Volume in Billions of Dollars



Source: World Gold Council, Incrementum AG

"Leveraged systems are based on confidence – confidence in efficient exchanges, confidence in reputable counterparties, and confidence in the rule of law."
GBI, Joe Yasinski und Dan Flynn

Numerous contracts are currently in, or close to, backwardation.[15] **We have already discussed the importance of this – for gold actually unusual – phenomenon in previous years**[16]**.** Simply put, backwardation means that the price of a futures contract is lower than the spot price. That in turn means that one can sell a physical commodity, buy a futures contract concurrently, and make a risk-free profit. Many commodities are seasonally produced, while consumption is distributed evenly over the year (for instance wheat). Shortly before the harvest, the spot price of wheat is therefore quite often reaching its highest level and wheat trades in backwardation, as inventories reach their lowest level. **Backwardation therefore signals scarcity.**

Backwardation: "*a bird in the hand is worth two in the bush...*"

Because gold's stock-to-flow ratio is far higher than that of wheat, gold should never trade in backwardation. In the case of gold, backwardation signals lack of confidence in future delivery of the physical metal, as expressed in the saying: "a bird in the hand is worth two in the bush". Since only around 0.3% of all contracts are settled physically, a sudden increase in physical settlements could lead to massive dislocations.

b) Technical Analysis: Sentiment and CoT Report Signal Bottoming Process

The crash has inflicted massive technical damage – repair of the chart picture will take some time

In the course of the price collapse, massive technical damage has been inflicted. We are therefore firmly convinced that repairing the technical picture will take some time. In light of the basic technical rule "support becomes resistance, resistance becomes support", the $1,530 level should represent very strong resistance for the time being.

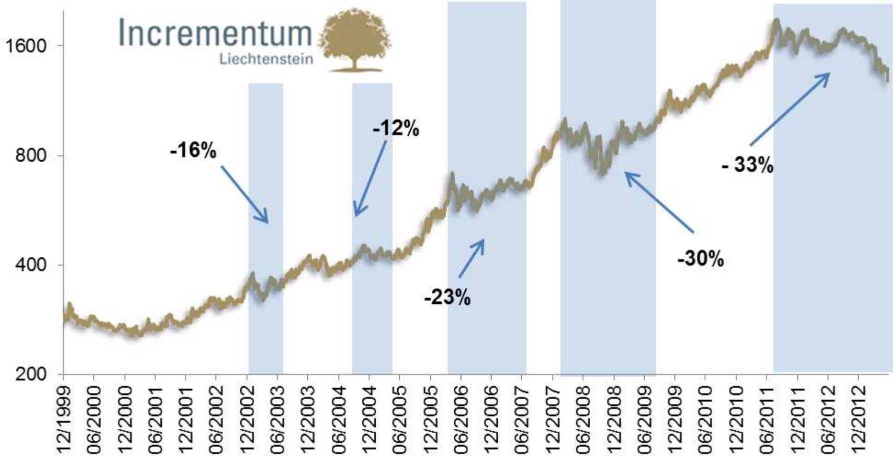
Drawdown of similar size as in the correction of 2008-2009, duration of correction however clearly above average

When gold reached its all-time intraday high at $1,920, the price traded three standard deviations above the 40 day moving average. Only two

15) Currently gold (August contract) and silver (July and September) are both trading in backwardation
16) We want to point to articles by Dr. Keith Weiner in this context, for instance "Permanent Backwardation: the Crack-Up Boom"

times in the course of the current bull market (May 2006 and March 2008) was the gold price similarly overbought. In both cases, sharp corrections followed suit. Based on the following chart one can see that the current correction is approximately similar in extent to the correction of the years 2008-2009. The duration of the correction (blue column) however is clearly above average.

Correction Periods since the Beginning of the Bull Market (log scale)

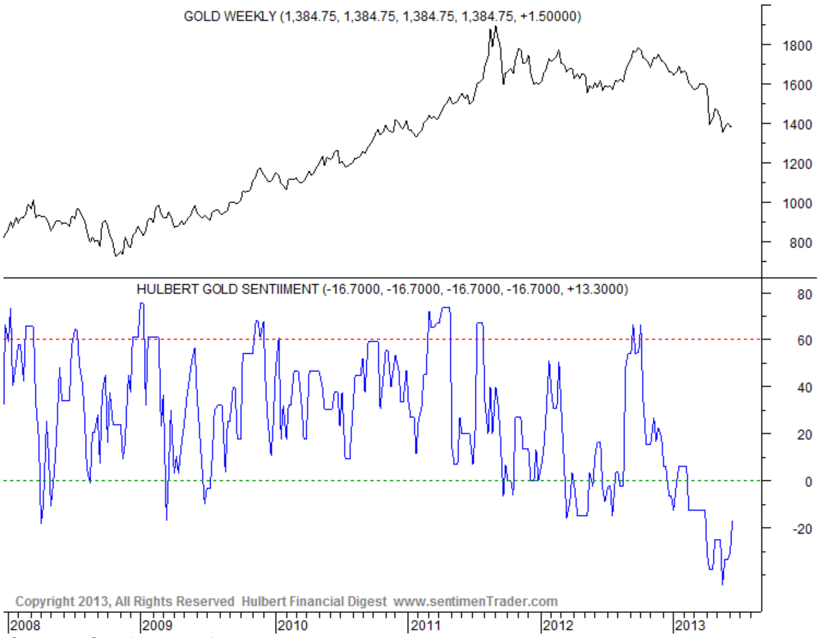


Source: Incrementum AG, Datastream

Extremely negative sentiment is a positive contrary indicator

The fact that sentiment is by now at the most negative level since the beginning of the bull market, gives us cause to be clearly positive about the long term. Sentiment indicators like e.g. Market Vane, the Hulbert survey and Rydex precious metals fund cash flows show that the gold price is miles away from excessive euphoria. **According to the Hulbert Financial Digest, the allocation recommended by gold newsletter writers was recently at *minus* 44%, an all-time low.**

Hulbert Gold Newsletter Sentiment Index



Source: Sentimentrader.com

CoT shows – from a contrarian perspective – a clearly positive situation. The bulls have thrown in the towel.

The commitments of traders report (CoT)[17] currently shows – from a contrarian perspective – a clearly positive situation. It confirms that a great deal of speculation has been wrung out of the sector in the first half of this year. Many trend-following speculators in COMEX gold futures have apparently not only thrown in their bullish towels, but have embraced the downward momentum for gold by selling futures short. On the other hand, large commercial interests, the natural hedgers, considered by many as the "smart money" in gold futures, have very strongly reduced their net short positions. **From October of 2012 to June, 2013, the commercial hedgers reduced their net hedges (net short futures positions) by 84%.** They currently hold the smallest net short position since February, 2005. This means that the largest, most deep-pocketed and best informed traders have positioned themselves for higher gold prices. [18]

Large and small speculators have decreased their net long positions by more than 90%

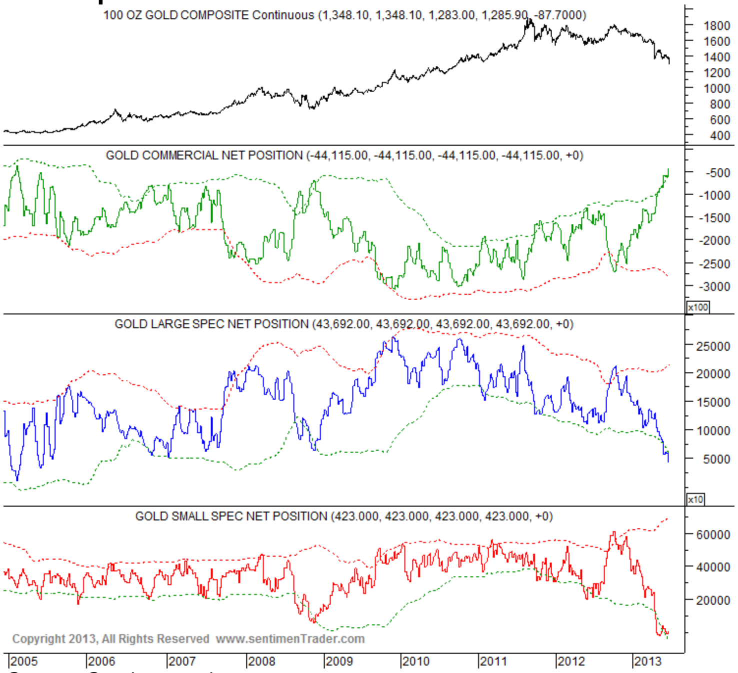
Compared to October of last year, large and small speculators have decreased their net long positions by 91% and 99% respectively. **For the same period the large speculators have increased their gross short positions seven-fold to record high bets the price of gold will fall further.** Because they tend to trade with the current trend and momentum, generally more short-term oriented speculators reach their highest gross short positions at or near important long-term low turning points for the price of gold. Conversely, the commercials seek to hedge longer-term price risk. Commercial hedgers tend to reach their least net short positions at or near important gold price lows.

Current positioning data in the futures market are a recipe for a pronounced rally

The commercial hedgers have not been net long gold since 2001 with gold then near $270, but following the 30-plus percent correction for gold since September, 2011, the industry hedgers and bullion banks are now the **closest to becoming net long in 12 years**. Indeed, on June 4, 2013 U.S. bullion-trading banks reported a 29,622-contract net long position for the first time since July of 2008 during the financial crisis with gold then USD $939. **In our opinion this signals an attractive counter-cyclical entry point. The current positioning data in the futures market are what we would only expect in a mature downtrend and are a recipe for a pronounced rally.**

17) The weekly report by the CFTC shows the positions of commercial dealers, large speculators and small speculators. The commercials are often designated the 'smart money' and act in counter-cyclical fashion. The most valuable information is provided by the commercials at extremes. Large speculators are hedge funds and institutional investors that act highly pro-cyclically. Extreme levels can be interpreted as contrary indicators most of the time. Small speculators are regarded as the 'dumb money' and are also trend-followers.
18) For detailed information please see "Got Gold Report", Gene Arensberg

CoT Report



Source: Sentimentrader.com

Technical Analysis, Conclusion

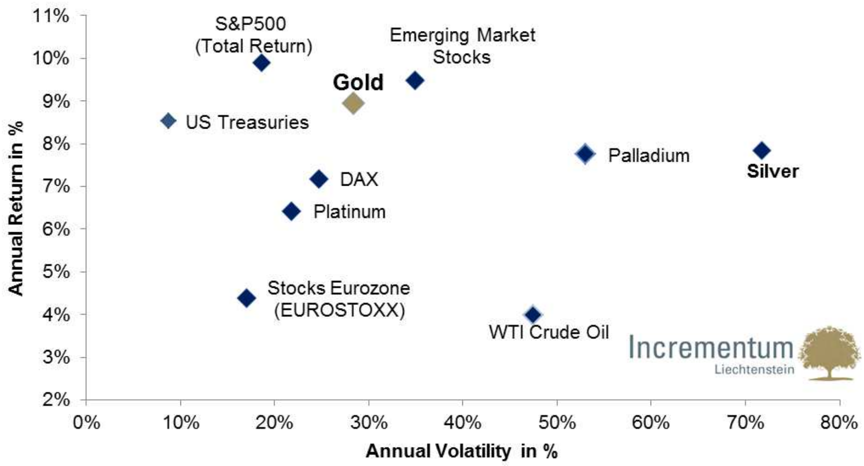
Since the all-time high in August 2011, the gold price is in a long term consolidation phase, similar to the mid cycle correction of 1974-1976. As a result of extremely negative sentiment and the clearly positive implications of the CoT data, we assume that we will soon enter a bottoming process. **From a seasonal perspective, not much momentum is expected before August.**

3. ESSENTIAL FEATURES OF GOLD

a) The Unusual Portfolio Characteristics of Gold[19]

Since August 15 1971 – the beginning of the new monetary era – the annualized return of the gold price amounts to 8.95%. The real appreciation of gold versus the dollar amounts to 4.7% per year on average. The attractive risk-return profile can also be discerned in the following illustration. What can also be gleaned is that productive assets – such as for example the S&P 500 Index[20] - exhibit a stronger return over the long term than gold. In our opinion, that is definitely to be expected over longer periods of time, due to the value-adding characteristics of companies. In the short to medium term however, the risk-return profile can easily turn in favor of gold – especially in times of monetary policy uncertainty.

Annual Return versus Annual Volatility[21]

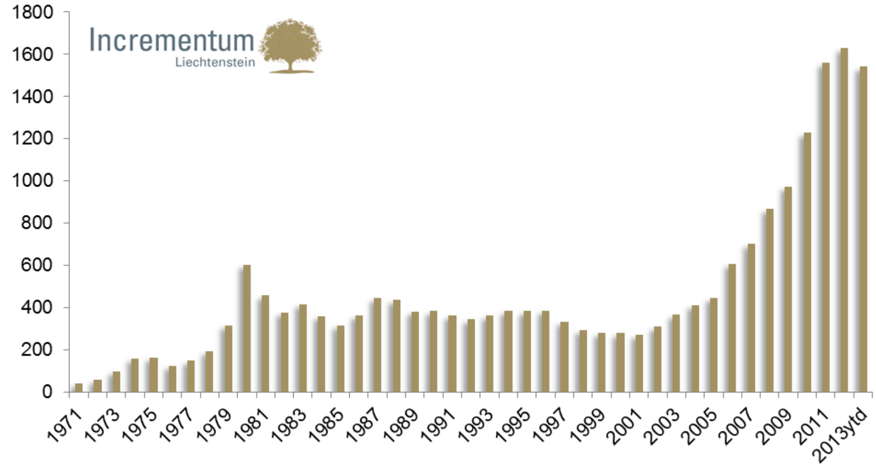


Source: Bloomberg, Ferdinand Regner, Incrementum AG

The fact that the current correction is rather insignificant in a long term context becomes clear when contemplating the following chart of annual average prices.

19) we have already discussed the portfolio characteristics of gold in our previous gold reports in some detail, see "Gold as Portfolio Insurance" - Gold Report 2011 as well as "Gold as a Stabilizing Portfolio Component" - Gold Report 2012
20) total return, i.e., including dividend payments
21) all data CAGR. Periodicity from 1971, except emerging market stocks (from 1988), euro zone stocks (from 1987) and US treasuries (from 1974)

Average Annual Gold Price

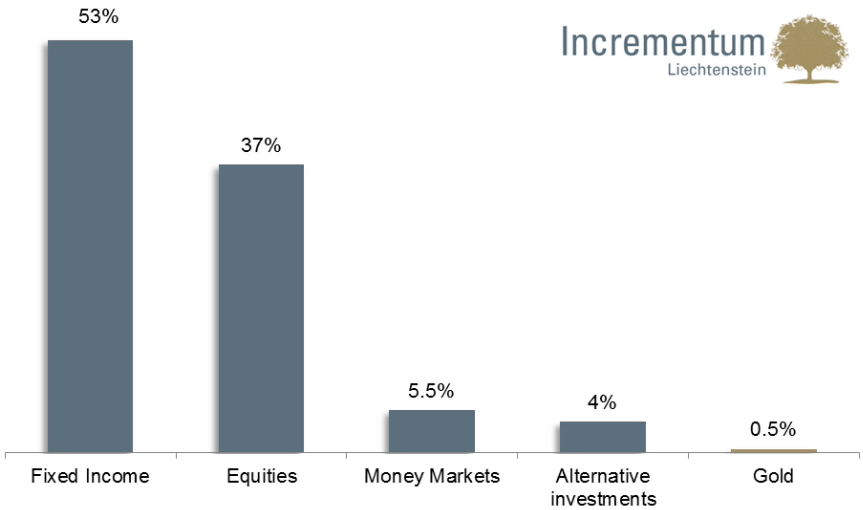


Source: Incrementum AG, Datastream

"Adding gold to the LCR (liquidity coverage ratio) reduces the volatility of the bank's LCR portfolio, reduces the value-at-risk of the portfolio, and improves the risk-adjusted returns."
World Gold Council

The value of global assets amounted to $223 trillion as of the end of 2012.[22] The share of investable gold currently amounts to $ 1.1 trillion, or only 0.5%.[23] We believe that this share is going to increase considerably in the future, since the notable characteristics of gold (global currency with a long term track record, no credit or counterparty risk, highly liquid and globally traded, very little inflation through mine production) are especially desirable in the current environment.

Gold's Share of Total Financial Assets Currently at a Mere 0.5%



Source: World Gold Council, Credit Suisse, World Federation of Exchanges

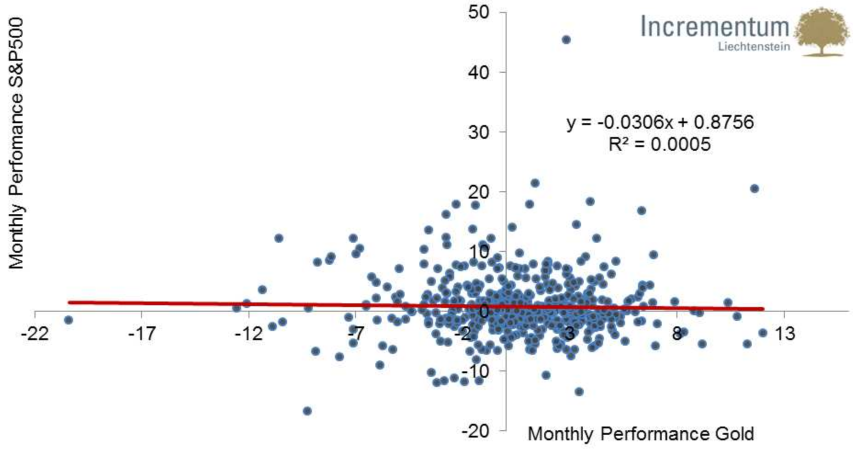
Gold is a non-correlated investment asset

Countless studies confirm that gold as a portfolio addition lowers the volatility of a portfolio and thus improves the statistical portfolio characteristics. If one compares the monthly return of the S&P 500 with that of gold since 1971, one notices this diversification characteristic quite clearly. Apart from these quantitatively provable characteristics, gold has in addition the qualitative characteristic of being a debt-free investment asset

22) see: "Global Wealth 2012: The Year in Review", Credit Suisse
23) the total stock of gold is much higher, however not liquid as it is either in the form of objects of art, central bank reserves, as jewelry not for sale, or in technological products.

that contrary to fixed income securities and bank deposits harbors **no inherent counterparty risk**.

Monthly Return, S&P 500 versus Gold since 1971



Source: Federal Reserve St. Louis, Incrementum AG

b) The Relative Scarcity of Gold versus Fiat Currencies

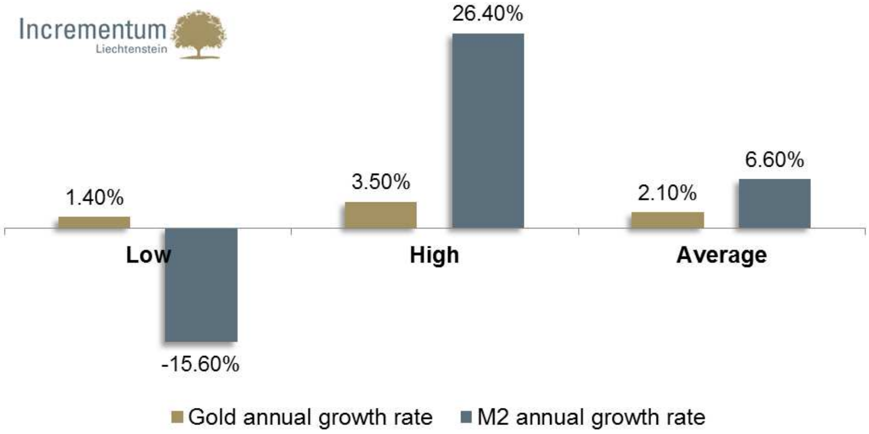
„If you can't explain it to a six-year-old, you don't understand it yourself."
Albert Einstein

"*The growth rate of gold production is roughly stagnant while the growth rate of fiat currency in most parts of the world continues to accelerate. It's all about relative supply curves – the supply curve for bullion is far more inelastic than is the case for paper money. It really is that simple.*" David Rosenberg

Gold's supply curve only changes incrementally every year. First and foremost scrap supply is volatile, while mine production is extremely inelastic. This is one of the major virtues of gold in contrast to paper currencies which can be produced in unlimited quantity. **Confidence in the future purchasing power of money depends crucially on how much money is currently available and how the money supply is expected to change in the future.**

One can see this ***relative scarcity*** in the following illustrations. Between 1868 and 2011, the average growth rate of the monetary aggregate M2 was 6.6%, while the stock of gold grew only by 2.1%. M2's historical volatility was also far higher, it ranged from minus 15.6% to plus 26%, while that of gold ranged only between 1.4% and a maximum of 3.5%.

Maximum, Minimum and Average Rate of Change of Gold versus Money Supply M2: 1868 to 2011

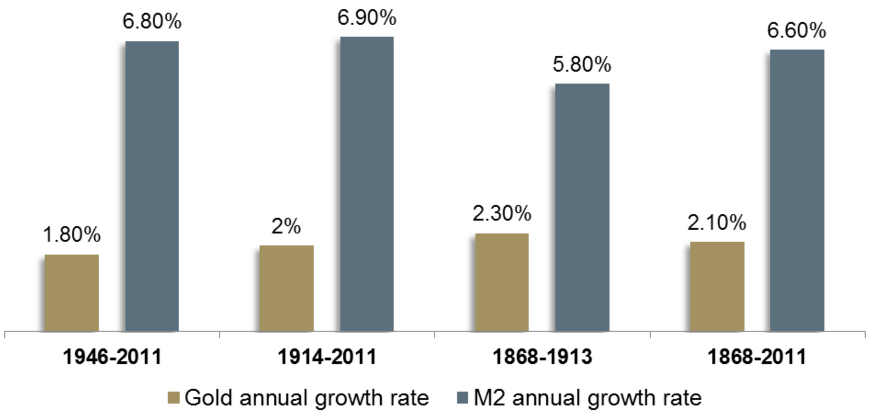


Source: GoldMoney Foundation, "The Aboveground Gold Stock: Its Importance and Its Size", James Turk

"Gold's value depends in large part on the degree of badness of bad money. Following on from the previous discussion this factor is significantly reliant on relative scarcity."
Deutsche Bank

If one analyzes the rates of change in different periods of time, one also notices the relative scarcity, the higher stability and lower volatility of the stock of gold. Since 1914, the year in which the Federal Reserve began to operate, the growth of M2 was 6.9% on average, while the stock of gold has only grown at 2% per annum.

Average Rate of Change Gold versus Money Supply M2 in Different Time Periods



Source: GoldMoney Foundation, "The Aboveground Gold Stock: Its Importance and Its Size", James Turk

Despite technological progress and the associated increase in mine production, the stock of gold never grew by more than 3.5% in a year. This constant growth of the stock of gold results from the properties of natural deposits. Even if it takes ever more effort and becomes more expensive to mine gold, this is compensated by ever more efficient mining technology.[24]

What does this actually mean? Let us assume that the price of gold rises considerably in the future and mining adjusts accordingly, then mining of

24) see: „The Above Ground Gold Stock: It's Importance and Its Size", Gold Money Foundation, James Turk and Juan Castaneda

e.g. 3,500 tons per year would certainly be possible within 10 years time. If we assume further that annual mine production grows by 3% p.a. over the next ten years, cumulative mine production would amount to about 31,000 tons over the period. The total stock of gold would then amount to approximately 203,000 tons by 2023. If mine production were to amount to 3,500 tons at that point in time, this would still only represent an annualized inflation of the stock of gold of 1.7%.

c) Stock-to-Flow Ratio as the Most Important Reason for Gold's Monetary Importance

"Gold (and silver) must be distinguished from other metals and other commodities. Gold is a monetary metal due to the fact that its marginal utility declines at a rate lower than that of any commodity. For this reason gold does not obey the Law of Supply and Demand."
Prof. Antal Fekete

Once again we return to the "greatest misunderstanding in the gold sector"[25] There is a clear difference between commodities, which can be explained by a consumption model (e.g. crude oil, copper, agricultural commodities) and goods that are bought in order to be held (gold, diamonds, works of art). While the economic utility of a consumable good is created when it is destroyed or used up, the utility of investment assets lies in their possession and later resale. Industrial commodities therefore have low stock-to-flow ratios, this is to say, inventories usually only cover consumption demand for a few months. If there were no inventories at all, supply would have to correspond exactly to production and demand exactly to consumption. However, if there are inventories, consumption can temporarily exceed production. Since inventories of consumable commodities are as a rule very low, prices will rise quickly in anticipation of a future supply shortage and bring consumption into balance with production.[26]

Stock-to-flow ratio as the most important reason for the monetary relevance of gold and silver

Unlike consumable commodities, gold and silver exhibit a large discrepancy between annual production and the total available supply (= high stock-to-flow ratio). As already discussed last year, it is our premise that the high stock-to-flow ratio represents the most important characteristic of gold (and silver). The entire amount of gold ever mined totals approximately 172,000 tons. That is the stock. Annual production was about 2,700 tons as of 2012. That is the flow. If one divides the two amounts, one arrives at the stock-to-flow ratio of currently 64 years.

Annual gold production is irrelevant for price determination

We therefore proceed from the premise that gold isn't as valuable because it is so rare, but quite the opposite: **Gold is valued so highly because annual production relative to the existing stock is so small. Putting it differently: not only scarcity, but primarily the relative constancy of the available stock is what makes gold unique. The annual production of 2,700 tons is therefore not relevant to price determination. This characteristic was attained over centuries and can no longer be altered.** This stability and security is a crucial precondition for creating confidence.

„Nations, differing in language, religion, habits and on almost every other subject susceptible of doubt, have, during a period of near four thousand years, agreed in one respect: that gold and silver have, uninterruptedly to this day, continued to be the universal currency of the commercial and civilized world." **Albert Gallatin, US Treasury Secretary**

Apart from gold's unique stock-to-flow ratio its high marketability is another important feature. The easier it is to exchange a commodity, the more pronounced its '*moneyness*' is. Carl Menger developed the **theory of marketability** in the 19th century. According to this theory, gold has established itself in a long term evolutionary process, because its marketability was higher than that of any other good. According to Menger, the marginal utility of gold therefore declines more slowly than that of other

25) see: „What is key for the price formation of gold", Robert Blumen, The Matterhorn Interview
26) see "In Gold We Trust 2012" - "The Biggest Misunderstanding in the Gold Sector" as well as "Does Gold Mining Matter?" and "The Myth of the Gold Supply Deficit" by Robert Blumen

goods.[27] **Gold and silver therefore enjoy their monetary status not due to their alleged scarcity, but rather due to their superior marketability**.

„Gold still represents the ultimate form of payment in the world. Fiat money, in extremis, is accepted by nobody. Gold is always accepted."
Alan Greenspan

In this respect there is a crucial difference between gold and other stores of value such as expensive real estate, diamonds or art objects. A Picasso painting, an expensive Bordeaux or a unique piece of real estate are all difficult to liquidate at an acceptable price in a liquidity emergency during a crisis situation. Furthermore, the specific features of art objects or real estate are only ascertainable after extensive due diligence. The fungibility of gold is therefore a crucial differentiation.[28] **This seems to be an additional reason why central banks are hoarding gold and not real estate, art objects or commodities as their main currency reserve**.[29]

"The pricing process is primarily an auction over the existing stocks of the asset. Whoever values the asset the most will end up owning it, and those who value it less will own something else instead. And that, in my view, is the way to understand gold price formation."
Robert Blumen

The reason why individuals don't spend all of their money today is their reservation demand[30] for money and the greater utility they expect it to command in the future. Reservation demand is therefore essential for price determination. The decisive factor is who values gold more highly: the new, incremental buyer, or the existing owner. The majority of gold analysts however focuses exclusively on 'exchange demand' and therefore assumes that price determination in gold can be forecast with the help of a simplistic consumption model.[31]

Closely related to this concept is the reservation price. Every gram of gold that is held for a variety of motives is for sale at a certain price. The motives for holding gold are diverse: as jewelry, as a currency reserve, in the form of objects of art, for technological applications, and so forth. Similarly diverse are therefore the associated time horizons, which range from the short term speculation of a trader to the generation-spanning insurance of an Indian bride. These decisions are not transparent, but depend on a range of competing opportunities in the course of time.

Opportunity costs are decisive for the trend of the gold price

As a result, opportunity costs are essential for the gold price. How significant are the competing economic opportunities and risks that I am exposed to because I am holding gold? Real interest rates, growth rates of monetary aggregates, size and quality of debt, political risks, as well as the attraction of other investment classes are the most important determinants of opportunity costs. All market participants employ different filters, thoughts and time preferences in this context, which influence their price determination.

Everybody who owns gold is therefore part of the supply side. Gold owners and non-owners alike constitute the buy side because they are all capable of demanding additional units. There will always be a price, or a combination of price and circumstances that will induce market participants to sell their gold. For some this will be at a far higher price level, for some however also at a significantly lower price level (for instance as a consequence of a deflationary collapse). **The decision *not to sell* gold at**

27) see: "The Gold Problem Revisited", Prof. Antal Fekete
28) This fact is often on display in stress situations in the financial system. In such periods, it is never the offer that disappears, but always the bid. Due to its high liquidity and the low bid-ask spread, gold is therefore often quickly liquidated in stress situations in order to create liquidity.
29) see: „Bitcoin: Money of the Future or Old Fashioned Bubble", Mises Daily, Patrik Korda
30) Reservation demand means that by holding on to something and making a conscious decision not to sell, one actually generates demand. Every good one holds and decides not to sell is subject to reservation demand.
31) A remark: this is also why we believe that it is a mistake that gold is mainly analyzed in commodity research departments, as currency research departments appear to be to be far better suited to the task.

the prevailing price level is therefore just as important as the decision to buy gold.

d) The Ongoing (Re-)monetization of Gold in the International Financial and Monetary System

"As the international community attempts to take on these challenges, gold waits in the wings. For the first time in many years, gold stands well prepared to move once more towards the center-stage. This could be the start of an immensely important phase in the history of world money." OMFIF

***"The previously dominant western economies have attempted to dismantle the yellow metal's monetary role, and – for a variety of reasons – this has comprehensively failed. Gold thus stands ready to fill the vacuum created by the evident failings of the dollar and the euro, and the not-yet-requited ambitions of the renminbi."* OMFIF**

The renaissance of gold in classical finance continues. OMFIF[32], a global think tank for central banks and sovereign wealth funds, in a sensational report[33] argues in favor of a remonetization of gold. In their view, gold should once again play a central role in the international currency framework. Due to its history, gold is said to be predestined to restore the structure and maintenance of trust and stability in international monetary relations.[34] Gold would be of mutual benefit for all countries as an anchor for currencies and could put an end to the currently escalating currency wars. OMFIF however doesn't recommend a return to a classical gold standard. Gold should primarily settle balance of payments transactions. **The report shows strikingly that fundamental changes to the currency system are already being discussed at the highest levels.[35]**

***"Particularly if the threats to the dollar and the euro worsen, a large SDR issue improved by some gold content and the R-currencies may be urgently required."* OMFIF**

OMFIF recommends the inclusion of gold in the IMF's special drawing rights. This possibility was also mentioned by the governor of the People's Bank of China. He regards SDRs as a "*light in the tunnel of reform of the international currency system*".[36] SDRs are a currency unit introduced by the IMF, which isn't traded on foreign exchange markets[37]. Currently the US dollar has a weight of 41.9%, the euro 37.4%, the Japanese yen 9.4% and the British pound 11.3%. Apart from gold, the 'R-currencies'[38] are also supposed to receive a higher status in the international currency framework and are to be included in the SDR basket.

Gold is ever more frequently used as collateral

Due to its high liquidity and its unique characteristics, gold is increasingly used as collateral. Following Eurex, CME Group, the International Exchange and JP Morgan, LCH Clearnet, the largest clearing house in the world, now also accepts gold as collateral.[39] Clearnet functions as a clearing house for the largest international exchanges and trading platforms, as well as a number of OTC markets and derivatives. **It appears as though there are worries about 'event risk', systemic and monetary risk**.

32) Official Monetary and Financial Institutions Forum
33) „Gold, the Renminbi and the multi-currency reserve system", OMFIF, January 2013
34) see: „Ein Schub für Renminbi und Gold" (A push for renminbi and gold), Lars Schall
35) see: „The Central Bank Revolution II", Hinde Capital, 2013
36) see: „China eyes SDR as global currency", China daily
37) Besides its normal functions, the IMF can also issue SDRs. This has - so far - not happened to any significant extent.
38) Renminbi, Indian rupee, Russian ruble, Brazilian real and South African Rand
39) http://www.zerohedge.com/news/lchclearnet-accepts-'loco-london'-gold-collateral-next-tuesday

More than a dozen US States want to approve gold and silver as an official means of payment

Especially in the US, calls for gold backing, respectively the acceptance of gold as an official means of payment, are becoming ever louder. After the state of Utah already approved gold and silver as an official means of payment in 2011, similar plans are now considered in more than a dozen additional federal states.[40] The initiatives are among others receiving support from the Tea Party movement and the Gold Standard Institute. We interpret this development as an expression of increasing dissatisfaction with the financial and monetary policy of the United States. **The symbolic effect of these initiatives is enormous, and we see a gradual continuation of this trend toward remonetization.**

Calls for credible audits and the repatriation of gold reserves of central banks, are growing louder

The growing number of initiatives that demand repatriation and a credible audit of state-owned gold reserves, also illustrates the growing importance of gold. In the case of the German Bundesbank (about 500 tons in eight years) this appears mainly designed to soften public pressure. However, many other countries are now also following the example of Charles de Gaulle.[41] Thus there are initiatives emerging in Mexico, Switzerland, the Netherlands, Azerbaijan and Romania that focus on demanding a repatriation of gold. We are convinced that this desire for transparency not only demonstrates the growing interest of populations in the gold reserves held by their governments, but is also an indication of growing distrust between central banks.

***"Gold is the timeless classic in its function as a medium of exchange, a means of payment and a store of value. Today's money isn't backed by any tangible assets. Banknotes are printed paper, the euro is printed cotton."* Jens Weidmann**

Last year no less a figure than German Bundesbank president Jens Weidmann drew attention with a speech in which he revealed himself as extremely critical of covert government financing with the help of uncovered paper currencies. Even if he did not argue directly in favor of a gold currency, he explicitly pointed to gold's function as a medium of exchange, a means of payment and a store of value.[42]

The demands for gold-backed bonds are growing ever louder. There are a number of precedents for its use as collateral in crisis situations. In the 1970s Italy and Portugal for instance employed their gold reserves as collateral for loans from the German Bundesbank and the BIS. In 1991 India used its gold as collateral for a loan from the Bank of Japan.

A study commissioned by the EU parliament recommends gold-backed bonds

In a study commissioned by the European parliament, author Ansgar Belke came to the conclusion that gold-backed bonds would be far more transparent, attractive and fair for investors than government bond purchasing programs.[43] According to the study, gold-backed bonds would alleviate the sovereign debt crisis at least in the short term. The World Gold Council is lobbying along similar lines and advises Italy to issue gold-backed bonds. A portion of its gold reserves of 2,400 tons should be used as collateral. That should lower financing costs and restore the damaged confidence in Italy's creditworthiness.[44]

"Simply speaking, a gold-based solution would be less inflation-prone. Those arguing that the gold-backing solution would decouple the money

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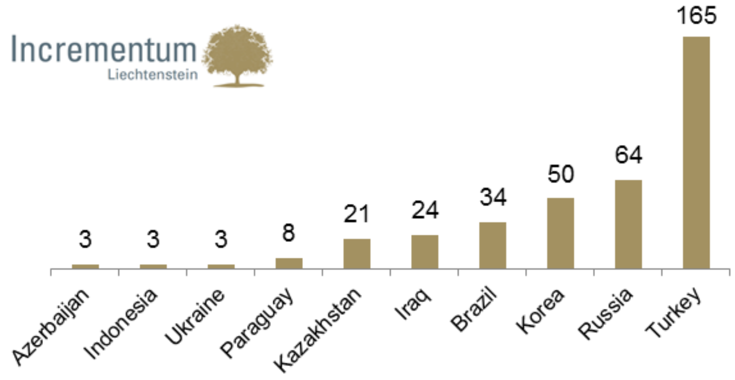
40) http://www.bloomberg.com/news/2013-04-08/trust-in-gold-not-bernanke-as-u-s-states-promote-bullion.html
41) Under the leadership of de Gaulle, France (on the advice of the legendary Jacques Rueff), converted the bulk of its dollar reserves according to the framework of the Bretton Woods agreement into gold, and thereafter shipped it to France *"so that it wouldn't be exposed to the grasp of a foreign power".*
42)http://www.bundesbank.de/Redaktion/DE/Reden/2012/2012_09_18_weidmann_begruessungsrede.html
43) SMP – Securities Markets Program
44) "Italy considers gold as an alternative to austerity", World Gold Council

supply and hard currency potentially leading to hyperinflation neglect the current non-role of gold for backing a currency. But above all, the use of gold as collateral avoids or lessens in importance, the reduction of incentives for reform of the beneficiary countries under the SMP and the OMT." Ansgar Belke in a paper to the European parliament.[45]

"*The more gold a country has, the more sovereignty it will have if there's a cataclysm with the dollar, the euro, the pound or any other reserve currency*" Evgeny Fedorov

Central bank buying amounted to 534 tons last year. That is the largest quantity since 1964. In 2013, the IMF expects a net amount of 550 tons. Especially emerging countries show increasing confidence with respect to their own (economic-) political power, and on the other hand growing distrust toward established reserve currencies. This is demonstrated by the strong increase in gold purchases by the central banks concerned.

Central Bank Buying Since July 2012 in Tons



Source: World Gold Council

„*Gold goes where the money is, and it came to the United States between World Wars I and II, and it was transferred to Europe in the post war period. It then went to Japan and to the Middle East in the 1970s and 1980s and currently it is going to China and also to India*" James Steel

While France was the most important critic of the dollar's currency hegemony in the 1960s (prior to the collapse of the Bretton Woods system), China appears to have taken on this role today. France at the time criticized the "*exorbitant privilege*"[46], stopped buying US treasuries, converted dollars to gold and repatriated gold. China is currently behaving in a similar manner, calling the dollar's status a "product of the past".[47] We assume that a speedy transformation of the renminbi into a reliable, stable and globally traded currency is one of the top priorities of China's leadership.[48]

Renminbi on the Way Toward Convertibility and Becoming a Trade Currency

International acceptance of the Renminbi is proceeding apace. In the first half of 2012 the renminbi's share of cross-border trade was already at 11% (vs. 7% in 2011 resp. 2% in 2010). China has recently taken a number of important steps in the direction of emancipation from a dollar-centric worldview. With the help of bilateral trade and clearing agreements, the economic integration and convertibility of the renminbi is gradually built up. The PBoC has thus negotiated 18 swap agreements with other central banks, among them those of Japan, South Korea, Hong Kong, Singapore, Argentina, Australia and most recently the United Kingdom[49]. More than 10 Asian central banks already hold renminbi reserves, and there are plans to

45) "A More Effective Euro Area Monetary Policy than OMTs - Gold-Backed Sovereign Debt", European parliament, Ansgar Belke, DIW Berlin and University of Duisburg-Essen
46) a designation by the former French finance minister Giscard d'Estaing, in the 1960s, which described the US privilege and the power of the global reserve currency.
47) see: Inflationary Deflation", Paul Mylchreest, Seymour Pierce
48) Although one should clearly differentiate between a reserve currency and a trade currency
49) "UK and China establish currency swap line", Financial Times

expand this to South America, Africa, Europe and the Middle East. In September 2012 China announced that every country that wishes to trade crude oil can henceforth do so in Chinese currency as well. Shortly thereafter Russia publicized that it had entered into a trade agreement with China, in the context of which there will be unlimited oil sales to China. This trade will be billed exclusively in renminbi.

Gold backing of the renminbi would substantially increase international acceptance

China wants to establish the renminbi as the dominant currency among emerging markets. That is reminiscent of the German Mark, which was a hard currency alternative to the US dollar in the 1970s and 1980s. This goal can however only be reached if its exchange value is strong and confidence in its future purchasing power is high. **We believe that gold will be one of the pillars of China's strategy. Specifically, we assume that China's central bank continues to accumulate gold covertly, and believe that it is possible that gold-backing of the renminbi is planned.** A gold-backed renminbi would increase its international acceptance in one fell swoop. The enormous gold reserves held by the United States[50] were for instance – aside from its military superiority – a major reason why the US dollar became the global reserve currency.

According to the World Gold Council, the central bank of China hasn't bought any gold since 2009. The fact that there haven't been any official announcements in four years clearly argues in favor of the notion that China will once again report surprisingly larger gold reserves. There is a lot of circumstantial evidence pointing in this direction. Last year, gold imports to the mainland from Hong Kong rose by 47% to nearly 560 tons. The momentum clearly appears to be increasing, as imports since the beginning of this year already amount to 498 tons.

China's Gold Imports from Hong Kong (in tons)

Source: Hong Kong Census &Statistics Department, Incrementum AG

Does China possess 4,000 to 6,000 tons of gold and with that, the second largest gold reserves in the world?

Our assumption is also confirmed by statements made by Chinese officials. In 2009 already, the newspaper China Youth Daily reported that there is a task force with a mandate to increase China's gold reserves. The gold reserves are supposed to be increased to 6,000 tons within the coming 3 to 5 years and subsequently to 10,000 tons. This is also confirmed by a representative of China's chamber of commerce. According

50) in 1952, the US gold reserves amounted to 29,663 tons

to his statement, China is going to increase its gold reserves to up to 8,000 tons.[51] **We therefore assume that the PBoC is currently massively expanding its gold reserves and holds far higher reserves than the officially reported 1,054 tons.** We believe it is realistic that China has by now 4,000 – 6,000 tons, and with that the second largest gold reserves worldwide.

e) Excursion: Reasons for 'Aurophobia'

Why is gold such an emotional topic?

It appears as though there are only two camps: people who love gold (a.k.a. 'gold bugs') or people who hate it. Between those two extremes there appear to be very few shades of gray, and people are only very slowly moving from one camp to the other. It appears as though there existed – especially in the financial sector – an **'aurophobia'**. In our opinion there are a number of phenomena of behavioral psychology (behavioral economics) that explain the extreme emotions attached to gold.

- **Mental accounting:** People always categorize financial transactions in terms of 'mental accounts' and evaluate them differently. Interest income is for instance booked in different accounts than price gains. Dividends are therefore regarded as a permanent addition to income, while capital gains are not booked as permanent, even though both have the exact same financial utility. That also explains why the phrase 'gold pays no interest' appears to be such a central counter-argument to owning gold.
- **Normalcy bias**: This describes the mental state of distorted perception people enter when facing a disaster.
- **Cognitive dissonance[52]:** it emerges if one's stable and positive conception of oneself is endangered, if someone receives information that makes him look stupid, immoral or irrational. This appears to be the reason for the fact that the first ever purchase of gold costs many people an enormous mental effort.
- **Availability heuristic and selective perception of information:** Human beings tend to overestimate the importance of events of the recent past relative to events that have happened a long time ago. The recent past is therefore extrapolated into the future.

51) "China should significantly boost gold in reserves", Reuters
52) Cognitive dissonance is a term in social psychology that explains an " emotional state perceived as uncomfortable that comes from humans having several cognitions at once; perceptions, thoughts, opinions, attitudes, wishes or desires that are conflicting with each other, hence a kind of 'feeling of disturbance'.

4. GOLD IN THE CONTEXT OF THE CURRENT MACROECONOMIC BACKDROP

a) The Expensive Consequences of the Cheap Money Policy

Yields in numerous countries are at all-time lows

Since 2008 there have been more than 500 interest rate cuts around the world.[53] In many countries, interest rates are at their lowest levels since records began. In July 2012, 10-year yields in the US thus reached with 1.39% the lowest level since the beginning of records in the year 1790. In the Netherlands – which provide the longest available time series for bond prices – interest rates fell to a 496 year low. In the UK, 'base rates' are currently at the lowest level since the founding of the Bank of England in 1694. In numerous countries (Germany, Switzerland), short term interest rates even fell into negative territory. **Never before has there been such a low interest rate environment on a global basis.**

"*If you would know the value of money, go and try to borrow some*"
Benjamin Franklin

The hunt for yield is by now producing worrisome effects. According to Bank of America, yields on bonds amounting to $20 billion are currently below 1%. As a result, the hunt for yield is leading to irrational exuberance in the high yield sector as well as in emerging market debt. Thus the yield of the Barclay's US High Yield Index fell below 5%[54] for the first time in history. Not too long ago, a yield of 5% on US treasuries was regarded as low. Even nations that are not exactly known as paragons of stability, such as Mongolia[55] or Rwanda, were recently able to issue bonds without a hitch. Mongolia issued bonds amounting to $1.5 billion (this equals about 20% of the country's economic output) at 5.125%, while Rwanda was able to finance itself at 6.62%.

"Savings are the indispensable precondition of investment. Plain and simple, there exists no investment that isn't financed by savings."
Prof. Jörg Guido Hülsmann

Interest rates are the ultimate key parameter of the economy. They coordinate the fact that humans place a higher value on the satisfaction of a need in the present than in the future. Interest rates bring the time preferences of men into line, and are therefore an indispensable compass for all market participants.[56] **The longer the zero interest rate policy lasts, the more reckless risks yield-hungry investors are likely to take. More and more capital is going to be allocated to dubious low returns. That undermines the productivity of capital.**

The Wide-Ranging Consequences of the Zero Interest Rate Policy[57]:

- Private individuals and business firms have less incentive to save. Instead there will be consumption to the detriment of savings and investment.
- Governments have less incentive to implement reform and consolidate their budgets
- Malinvestment in capital-intensive producer goods
- Traditionally conservative investors feel they are increasingly in a

53) see: "Gold and the Yen", www.acting-man.com
54) see: "Yield Chasers United sets new records as well", www.acting-man.com
55) Mongolia has been rescued 5 times by the IMF over the past 22 years, see also: . „Mongolia Binges on Bond Bonanza", Wall Street Journal
56) Prof. Dr. Thorsten Polleit "Was der unbegrenzte Ankauf von Staatsanleihen durch die EZB wirklich bedeutet" (What the unlimited purchase of government bonds by the ECB really means), Rott & Meyer, resp. Bob Murphy „Capital & Interest"
57) see in this context also Degussa Market Report, Prof. Dr. Thorsten Polleit, February 2013, as well as "Ultra Easy Monetary Policy and the Law of Unintended Consequences", William R. White, August 2012

pinch regarding investments and accept excessive risks due to the outlook for long term low interest rates. That leads to capital misallocation and the formation of bubbles.
- The too low interest rate environment therefore leads to severe long term damage for the economy, as the process of 'creative destruction' is thwarted and unproductive companies are kept alive artificially
- Distributive injustices ("Cantillon effect")
- Financial markets are weakened, as careless behavior by market participants is encouraged (moral hazard)

"Ongoing monetary accommodation is blunting its own effectiveness… ever more money will have to be injected ever faster for the central banks to keep achieving their near term policy goals, which are to obstruct any liquidations of capital misallocations and excess debt." **Detlev Schlichter**

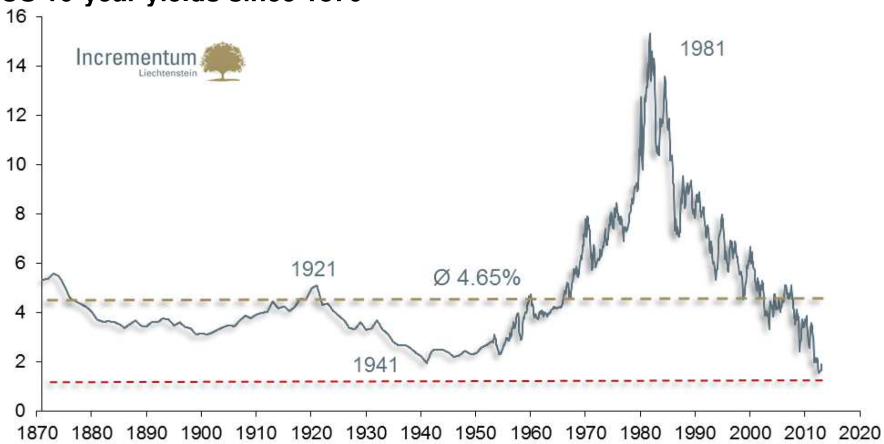
The unintended consequences of the zero interest rate policy are especially evident in Japan. Specifically, there is the growing interdependence of monetary and fiscal policy and the erosion of the allocation and signaling function of interest rates. This leads to an ever growing wave of speculative excesses and macroeconomic rescue operations, and finally to a creeping nationalization of the financial and economic system.[58]

"It can however be deduced from von Hayek's monetary over-investment theory (1929), that expansionary monetary and fiscal policy is not a lasting solution for crises. This is because the structural adjustment, respectively creative destruction of a crisis, which puts an end to speculative excesses and forces unprofitable companies to restructure, is put in abeyance. The marginal productivity of investments declines, and economic dynamism is thwarted." Prof. Gunther Schnabl

b) Gradually Declining Leeway for Raising Interest Rates

As can be seen in the following chart, the US has never before in history been able to finance itself as cheaply as now. In a normal, well-functioning credit market this would signal that the country's creditworthiness is higher than ever before. However, if one takes a look at the growth of US public debt, some doubts as to its creditworthiness may well arise. **Since 1971 the level of debt has increased 40-fold.**

US 10-year yields since 1870



Source: Prof. Robert Shiller, Incrementum AG

58) see: „Die Japanischen Lehren für die europäische Krise“ (Japan's lessons for the European crisis), Prof. Gunther Schnabl, University of Leipzig

"Safe debt is rapidly becoming an oxymoron"
Willem Buiter

As a result of the debt situation, one realizes that the leeway for significant rate hikes is quite small and is gradually declining. Since 1870 the average yield of long term US government bonds was at 4.65%. Should yields for example rise to 7% the debt servicing costs of the US treasury would increase from currently $450 billion to $2 trillion, or 80% of tax revenues.[59]

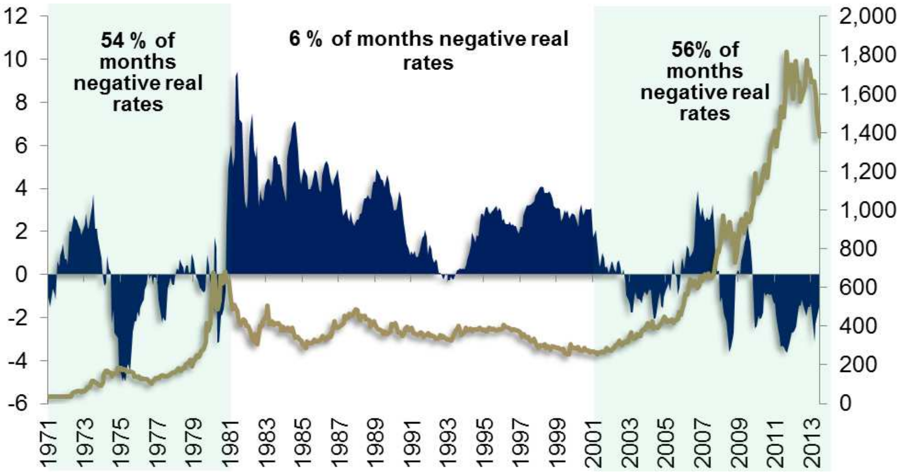
Japan in a monetary dead-end street

Even more striking is the over-indebtedness situation in Japan. As a result of the zero interest rate policy being in force for 17 years by now, the government has already refinanced the bulk of its debt burden at extremely low interest rates. Despite such favorable financing conditions, debt service costs already amount to 25% of tax revenues. An increase of the average refinancing costs by three percentage points (to 4.6%) would consume the entire public revenue.[60] **That alone shows that higher interest rate levels cannot possibly be reconciled with the fiscal situation.**

c) Negative Real Interest Rates as the Perfect Backdrop for Gold

What does this mean for the gold price? We have already detailed in recent years why a negative or very low level of real interest rates is the basic building block of gold price rallies. This is confirmed by the following chart. It shows the bull market of the 1970s as well as the subsequent 20 year long bear market in the gold price.

Real Interest Rates versus the Gold Price since 1971



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

A similar result is shown in the following table. The first column shows the percentage of all months in which the real yield of US treasuries was below 1%. The second column shows the nominal return of gold in the time period concerned and the third column shows the real return of gold over the same time period.

59) "Major Themes", TGSF Advisors
60) see: "Global Economic Landscape Driving Today's Energy Environment", Kyle Bass

Decade	% of all months with real yields below 1%	Nominal Return in decade	Real Return in decade
1970s	50%	1,356%	627%
1980s	11%	-22%	-53%
1990s	25%	-28%	-46%
2000s	60%	281%	196%
2010-2013	64%	26%	20%

Source: IR&M, Bloomberg, Datastream

The belief that the gold bull market is over, must be accompanied by an expectation of rising real interest rates. In order to validate this thesis, one should ask oneself the following questions:

- What would happen to currently already anemic GDP growth if central banks were to raise interest rates significantly?
- How would short and long term bond yields react? What would the effects on corporate bonds be, especially junk bonds?
- What would happen to valuation models (e.g. for stocks)?

d) Excursion: Monetary Tectonics – Inflation versus Deflation

The big question "inflation or deflation?" has been a key bone of contention for economists in recent years. We want to analyze the problem from the point of view of the Austrian School of Economics below.

The interplay between inflation and deflation can be compared to the permanent reciprocal pressure of two tectonic plates. A number of phenomena, such as volcanic eruptions and earthquakes which are visible on the surface, are the result of processes taking place deep within the earth.

"Falling prices or price deflation are not the cause of economic and financial crises, but their consequences - and at the same time their cure." **Roland Baader**

The natural market adjustment process of the current crisis would be deeply deflationary[61]. The reason for this lies in our current fractional reserve banking system. The largest part of money in circulation is created by credit within the commercial banking sector. The much smaller portion is, however, created by central banks. As the financial sector in most parts of the world reversed its preceding credit expansion, overall credit supply was reduced significantly.

This (credit) deflation, respectively deleveraging, is currently compensated by very expansionary central bank policies. In our opinion, this is an extremely delicate balancing act. Due to the following grave consequences, deflation is a horror scenario from a political viewpoint that has to be averted *at all costs*.

- Price deflation results in a real increase in the value of debt and a nominal decline in asset values
- Debts can no longer be serviced.
- Creditors and savers would lose money in nominal terms.
- Massive tax revenue declines for the government due to a declining taxable base
- Deflation would have fatal consequences for large parts of the

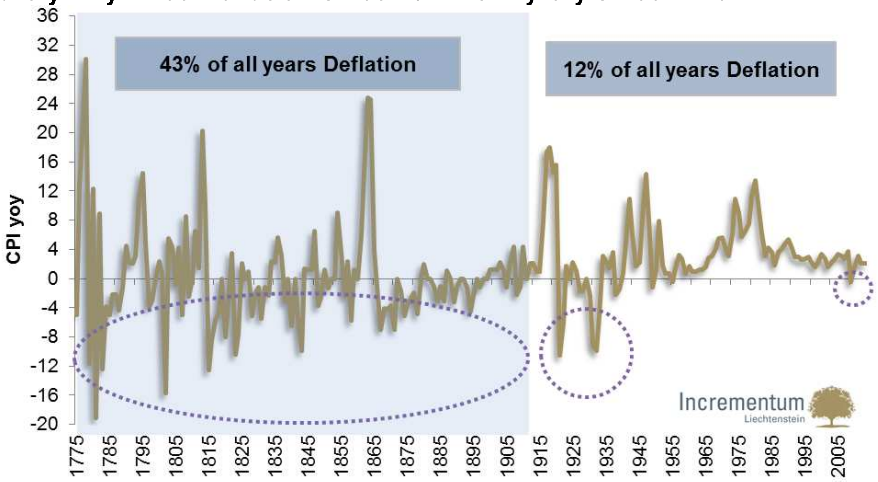
61) whereby deflation as understood by the Austrian School would be regarded as a shrinking of the supply of money and an increase in the quality of money

banking system
- Central banks also have the mandate to ensure financial market stability

"Inflation might be too low and the Federal Reserve may need to respond"
James Bullard, St. Louis Fed

As the illustration below shows, until the founding of the Federal Reserve, deflationary and inflationary periods tended to alternate. Since 1913, and especially since the end of the Bretton Woods system, the situation has however radically changed: in only 12% of all years price deflation occurred.

Barely Any Price Deflation since 1971: CPI y-o-y since 1775



Source: Professor Robert Sahr, Measuringworth.com, Incrementum AG

"To understand asset inflation, think of money and credit inflation as water coming out of a giant hose that has been stuck in the ground. The water must come out of somewhere, but you can't be sure where. When the hose pumps out money, eventually some prices will have to rise. If CPI inflation is weak and falling, the pressure must flow to assets and push their prices up."
Anthony Boeckh

According to Austrian Business Cycle Theory the prices of capital goods (= asset price inflation) increase first in the course of an inflationary process, while consumer price inflation (= rising consumer prices) only ensues later. The asset price inflation that is currently in train can be identified by a multitude of symptoms. Prices for antiques, expensive wines, vintage cars, but also real estate and stocks recently increased strongly. The phenomenon is especially obvious when considering the example of fine arts: in 1980 the most expensive painting in the world[62] traded for only $6.4 million. Thereafter prices rose exponentially, the barrier of $100 million was broken in 2004 with Picasso's "Boy with a Pipe". Cezanne's "Card Player" is currently the most expensive painting at $260 million. A similar indication is also given by the number of billionaires: while there wasn't a single billionaire in the 1970s, there were 8 in the 1980s and currently there are more than 1,400 according to Forbes[63]. **The reason for this development is the gradual blowing up of asset values and the associated Cantillon effect[64].**

e) Origin of the Current Crisis: August 15, 1971?

The question arises whether the current crisis has endogenous or exogenous reasons. Exogenous shocks would e.g. consist of crop failures, localized debt crises, or the default of individual banking institutions.

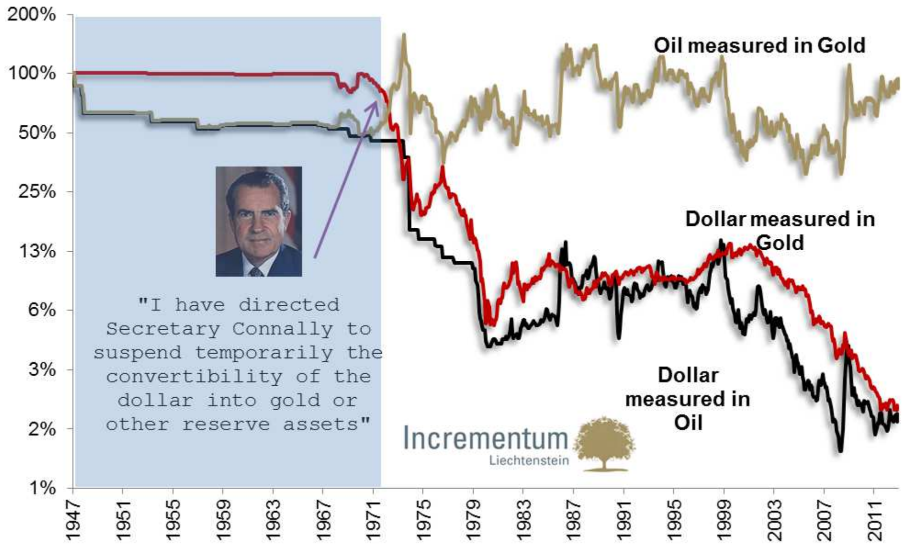
62) William Turner, „Juliet and her Nurse"
63) see Silber Bulletin 11/2013
64) the Cantillon effect describes the fact that newly created money is neither distributed evenly nor simultaneously in the population. That means that users of money partly profit from rising prices, and partly suffer from them. This results in a transfer of wealth, resp. a hidden tax, from later receivers to earlier receivers of new money.

Endogenous problems are however traceable to instability that is inherent in the system. **These latter problems can only be solved with the help of structural reforms.**

The origin of today's crisis should be traced back to August 15, 1971

We are firmly convinced that the origin of today's debt/financial/systemic crisis can be traced back to the events of August 15, 1971, when Richard Nixon ended the Bretton Woods agreement with the words: "*Your dollar will be worth just as much tomorrow as it is today. The effect of this action is to stabilize the dollar*."[65] Since then the purchasing power of the dollar in terms of gold has declined from 0.75 grams per dollar to currently 20.7 milligrams.[66] The gradual decline of the dollar's purchasing power against gold and oil can also be discerned in the next chart. By contrast, while the purchasing power of crude oil in terms of gold evolved in a volatile manner since 1971, it has remained relatively stable over the decades.

The Purchasing Power of the US Dollar Measured in Gold and Oil Terms versus the Purchasing Power of Gold in Oil Terms (logarithmic scale)



Source: Datastream, Incrementum AG

"In an economic system, if the goal of the authorities is to reduce some particular risks, then the sum of all these suppressed risks will reappear one day through a massive increase in the systemic risk and this will happen because the future is unknowable."
Karl Popper

The aggregate amount of risk in an economic system is always constant. The only question is whether these risks come to the fore successively in small doses, or all at once in a great flood. The attempt to eliminate or suppress volatility with the aid of economic stimulus or central bank interventions makes the system more susceptible to error and increases its fragility.[67] Nassim Taleb compares this to overdosing on medication in the event of illness. **Hyman Minsky also criticized crisis**

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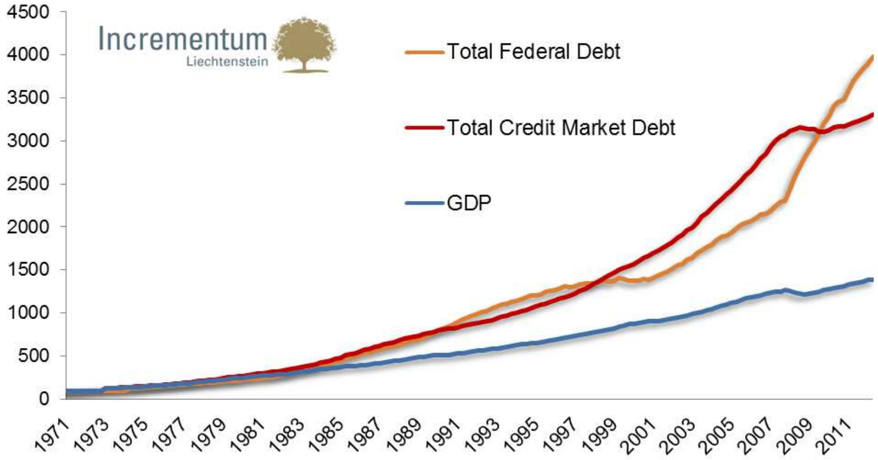
65) even though Nixon blamed 'international currency speculators' as the causal agents/scapegoats, the closing of the gold window was probably politically motivated. Nixon demanded short term economic stimulus and a devaluation of the dollar from then Fed chairman Arthur Burns, in order to increase the chances for his re-election.
66) according to the 'Mint Act' of 1792 a dollar was defined as 1.604 grams of gold resp. 24.1 grams of silver. At the beginning of the 20th century, the ratio was changed to 1.505 grams per dollar. 20.67 dollars thus equated an ounce of gold. What is noteworthy is the fact that it wasn't the gold price that was fixed in terms of dollars, but that rather the dollar was defined as a weight of gold. The dollar thus corresponded to gold.
67) furthermore, the suppressed volatility is underestimated by quantitative risk models (value at risk, etc.)

intervention, in his opinion, financial instability and financial crises are simply givens of economic life[68].

Mostly debt-induced growth since 1971

The growth of debt had clearly decoupled from real economic activity long before the crisis became obvious. Debt-induced growth is spectacularly demonstrated by the next chart. Thus, 'total credit market debt' in the US has risen by a factor of 33 since 1971, the total level of public debt by a factor of 39, and GDP merely by a factor of 14.

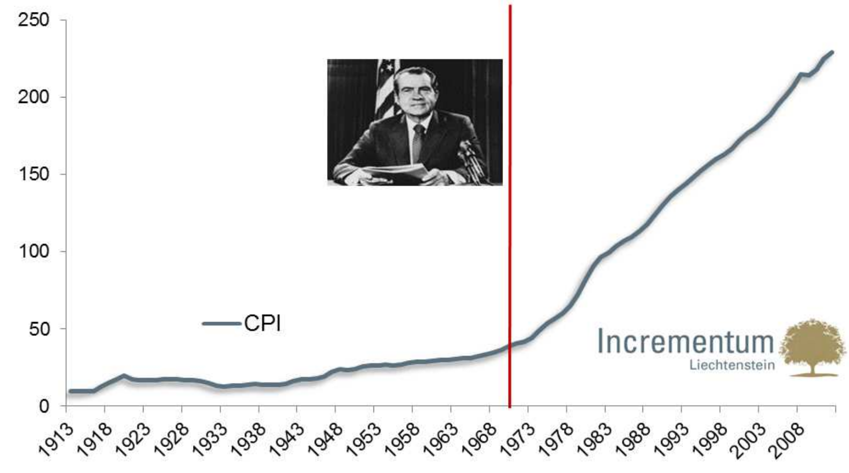
GDP, Total Federal Debt and Total Credit Market Debt since 1971 (indexed to 100)



Source: Federal Reserve St. Louis, Incrementum AG

Since 1971, we have been also in a new paradigm with regard to price increases. This is shown in quite an impressive manner by the US consumer price index since 1913.

Consumer Prices in the US over the Past Century (CPI indexed)



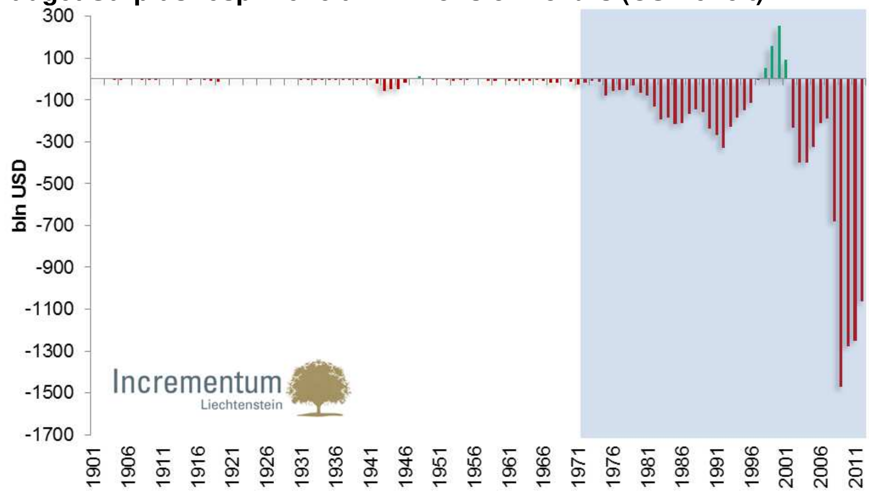
Source: Incrementum AG, Federal Reserve St. Louis

68) see „Es ist an der Zeit, etwas Minsky zu lesen“ (It is time to read some Minsky), Lars Schall

"Simplistically, if capital is stored effort, then debt is borrowed effort: either someone else's or your own estimated future output."
Deutsche Bank, Adjusting for Zero

This paradigm shift of 42 years ago can be discerned from the following illustration. High deficits over decades are a phenomenon of the post-Bretton Woods era[69]. Before this, budgets were – with the exception of wartime – usually balanced. Never before in history have so many countries failed to achieve surpluses over such a long time period. In the US, there were deficits in 40 of 44 years and in Great Britain in 51 of the past 60 years. Italy, Portugal and France have had nothing but deficits since there are reliable records available (1960, 1977, resp. 1978).

Budget Surplus resp. Deficit in Billions of Dollars (US Deficit)



Source: Incrementum AG, Federal Reserve St. Louis

f) Cantillon Effect Describes Uneven Distribution of Newly Created Money

"***Both Keynesians and Monetarists build their models on the assumption that money is neutral with regard to the economic outcome. In other words, the mainstream economists believe that monetary policy should be used to increase aggregate demand in the short run and by so doing will not in any way affect the economic structure over the long run.***"
Ludwig von Mises

It is fallacy to believe that a single number (CPI) can describe the price level of all goods and services and with that the inverse of the trend of money's purchasing power. The preferences of market participants are constantly changing and represent a dynamic manifestation of individual value scales[70]. It is equally erroneous to believe that every newly created unit of money will have the same effect on the level of prices. **The level of prices will tend to increase, but at different rates and speeds.**

The Irish Banker and Economist Richard Cantillon was the first person to recognize this fact. The so-called Cantillon effect which was named after him, describes the fact that newly created money is neither evenly nor simultaneously distributed among the population. That means that users of money are partly profiting and partly suffering from rising prices. An expansion of the money supply is therefore never neutral. Market participants who receive new money early and exchange it for goods benefit compared to those who receive the new money later, as they can still buy at relatively unchanged prices. **A wealth transfer from later users to earlier users takes place.**

69) see: "LT Asset Return Study", Deutsche Bank Global Markets Research
70) see: "The Causes of Price Inflation & Deflation: Fundamental Economic Principles The Deflationists have Ignored", Laura Davidson, Libertarian Papers

"Inflation is the process of making addition to currencies not based on a commensurate increase in the production of goods."
Federal Reserve Bulletin,1919

Friedrich August von Hayek has compared the Cantillon effect to what happens when honey is poured into a saucer. The honey is only slowly distributed from the middle to the periphery. Prices don't rise in a uniform manner either. Price levels are for instance higher in cities that benefit from monetary inflation[71]. On a global basis this means that the issuer of the global reserve currency – in this case the dollar – benefits the most from inflationary policy and is the biggest beneficiary of the Cantillon effect[72].

If the money supply increases in a period of subdued economic activity, the expansion of the money supply can also occur without price increases. However, there will be redistribution in this case as well, even though it may not be immediately obvious: the higher money supply averts a decrease of prices to the level they would have attained without an expansion of the money supply. Producers are therefore the beneficiaries, as their selling prices remain high. Consumers however lose out, as the money supply expansion averts a decline in goods prices and thus an increase in money's purchasing power[73].

Cantillon Effect Results in Uneven Distribution of Incomes – Confirmed by GINI Coefficient

The uneven distribution of incomes is currently escalating and leads to growing social tensions. In the US**,** between 1979 and 2011 the average household's income has risen by 64%, while the income of the top 1% of households has increased by 300% and the income of the lowest quintile increased only by 18%[74]. This strongly rising increase in wealth concentration can be gleaned from the GINI coefficient[75], which has reached historical extremes in many countries. This means that extremes at the lower and the upper end of the scale of incomes become ever more pronounced, while the classical middle class loses in importance. Thus the GINI coefficient in the US is for example currently at the same level as in the 1920s prior to the Great Depression.

71) one characteristic of international financial centers is by the way a far higher level of prices
72) see: „The Amphora Report – The Curse of the Reserve Currency"
73) see: "Cantillons Erkenntnisse" (Cantillon's Insights), Prof Dr. Thorsten Polleit
74) see: Wikipedia, Income equality in the United States
75) the GINI coefficient is a statistical measure that indicates the distribution of incomes and wealth. It ranges from zero (completely even distribution of wealth) to 1 (a single person owns all the wealth).

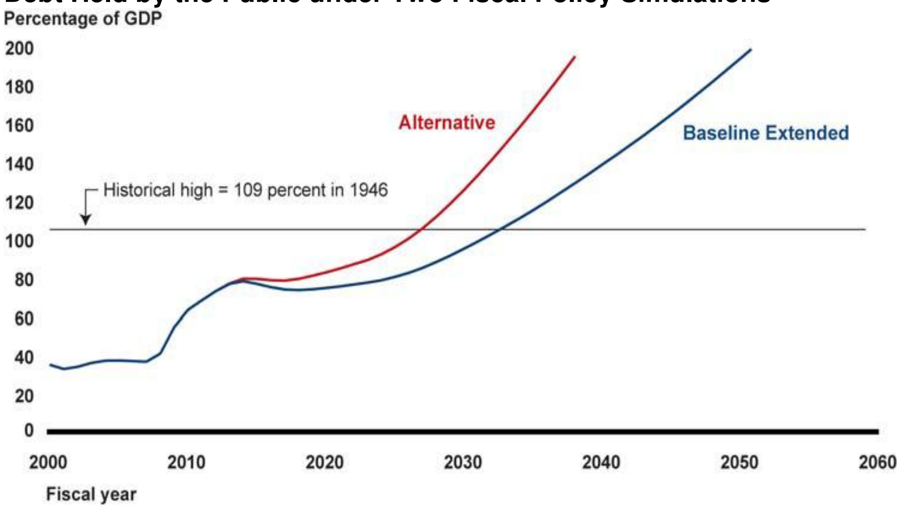
5. STRUCTURAL OVER-INDEBTEDNESS ARGUES FOR CONTINUED UPWARD REVALUATION OF GOLD

…Debt is nothing but consumption brought forward that will be absent in the future…

If it not possible to achieve surpluses even in times of economic prosperity, then the problems must be systemic. Due to compound interest, debt tends to grow exponentially. As soon as debt and debt service costs rise faster than income, the vicious circle of over-indebtedness begins.

Currently the industrial nations continue to be faced with the highest levels of public debt in peacetime. In the US, the Government Accountability Office sees fiscal policy on a path that is intractable in the long term[76]. In the following illustration of scenarios, rising debt is caused by fundamental imbalances between expenditures and revenues, demographic changes, as well as strongly rising health care costs.

Debt Held by the Public under Two Fiscal Policy Simulations



Source: Government Accountability Office

Fiscal gap shows a much more dramatic picture of over-indebtedness

The two scenarios mentioned above however show only one side of the coin. The 'fiscal gap' also includes the liabilities and guarantees of the federal states, municipalities and pension funds and shows a much more dramatic picture of over-indebtedness. In the GAO's alternative scenario the fiscal gap currently amounts to 8% of GDP, i.e., revenues would have to be increased by 44%, or expenditures lowered by 32% (or a combination thereof) in order to close the fiscal gap until 2087[77].

Poor demographics will represent biggest long term challenge for industrialized countries

Demographics represent the biggest long term challenge for industrialized nations. Life expectancy has doubled in the past century, while fertility in industrialized nations has fallen by one half. The retirement age has however barely changed. The total of this results in a significant worsening of the old age dependency ratio.[78] While the share of retirees was at 14% in 1950, it is today already at 31% and will probably be at 57% in 2050. In Japan it is currently already at 35% and will rise to 70% by 2050.[79]

76) Government Accountability Office, GAO
77) see: Government Accountability Office (GAO), The Federal Government's Long-Term Fiscal Outlook, Spring 2013 Update
78) this is to say, the number of persons aged 65 or older, divided by the number of persons of working age between 14 and 65 years.
79) see: „Ending the Era of Ponzi Finance", Boston Consulting Group

a) Clearly Declining Marginal Utility of Additional Debt

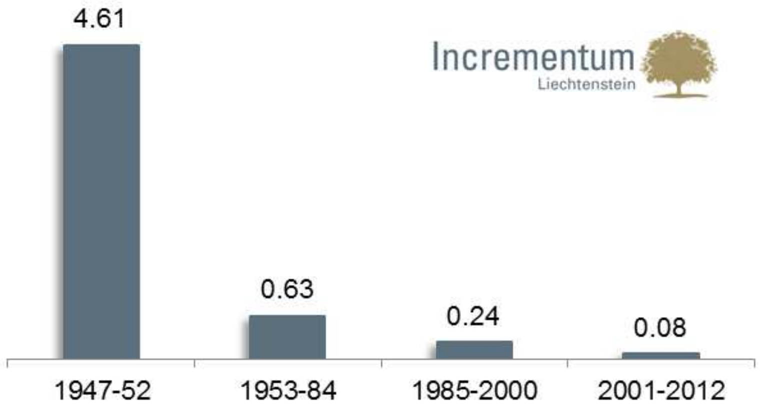
"The utility resulting from any small increase in wealth will be inversely proportionate to the quantity of goods previously possessed."
Daniel Bernoulli

Gossen's first law states: *"The amount of one and the same enjoyment decreases continually if we carry on continuously with consuming the enjoyment, until finally satiation sets in."* This means that the consumption of a good provides a successively declining marginal utility as the amount consumed increases. Moreover, factors of production can sometimes even be destroyed.[80] **This law is universally valid, and can be applied to a multitude of different spheres.[81]**

Strongly declining marginal utility of debt

The strongly declining marginal utility of additional units of debt can be seen in the following chart. While from 1947 to 1952, every additional dollar of debt still created $4.61 in GDP growth, this has declined to 8 cents since 2001. This also explains why stimulus programs can by now only produce anemic growth. **As soon as the doses of debt are no longer progressively increased, and even reduced, the withdrawal symptoms will be painful.**

Increase in Real GDP per Dollar of Incremental Debt



Source: Ned Davis Research, Gary Shilling, Federal Reserve

Expansion of money supply has very limited impact on economic growth

The insight that debt-financed stimuli only provide short term relief is also confirmed by numerous academic studies. According to Paul Vreymans[82], the expansion of the money supply affects the growth of GDP at a statistically barely significant magnitude of 0.1102. The effect is primarily limited to the first quarter after the injection, while the short term growth effect later on dissipates quickly and begins to be counterproductive in subsequent quarters.

Robert Lucas calls monetary expansion a causal illusion and deception of market participants

Robert Lucas stated something similar in his Nobel Prize acceptance speech.[83] Monetary expansion has practically no influence on economic growth; it is a causal illusion. Lucas rather regards it as a deception of all

80) Wikipedia, "Gossen's Law": a typical example is the consumption of foodstuffs, which typically leads to satiation (and where the marginal utility can consequently even turn negative). Thus the consumption of a glass of water creates very high utility for a thirsty person, while the second glass creates less utility, the third glass again somewhat less additional utility, and the fourth may already create a feeling of satiation or even nausea, i.e., the marginal utility turns negative. In the most extreme case, one may even drown in water if there is too much of it.
81) an analogy from nature: it is possible to increase the fertility of soil by means of fertilizer. However, if one overdoes it, overfertilization takes place and every additional unit of fertilizer becomes useless, the soil is destroyed.
82) "The Monetary Stimulus Myth – An Evidence based Analysis", Paul Vreymans
83) http://www.nobelprize.org/nobel_prizes/economics/laureates/1995/lucas-lecture.pdf

market participants, since the most important price in the market economy is falsified and the function of money as a store of value is destroyed. This leads to misallocations of capital. Monetary policy – regardless of whether it is expansive or restrictive – is according to Lucas unable to influence the level of economic output.[84]

"The decline of the value of each dollar is in exact proportion to the gain in the number of them."
Keith Weiner

That also explains why the current real problems cannot be solved by means of monetary stimulus. That a strong increase of the monetary base has historically been a surefire recipe for higher rates of price increases, is even stated by the Federal Reserve.[85] According to a Fed study, expansionary monetary policy is only to be recommended if the public is aware that the increase is only temporary and the central bank is able to firmly anchor credibility with respect to low, stable rates of price inflation.

b) *Financial Repression – the Putative Solution to the Debt Crisis?*

"Capital will always go where it's welcome and stay where it's well treated."
Wriston's Law of Capital

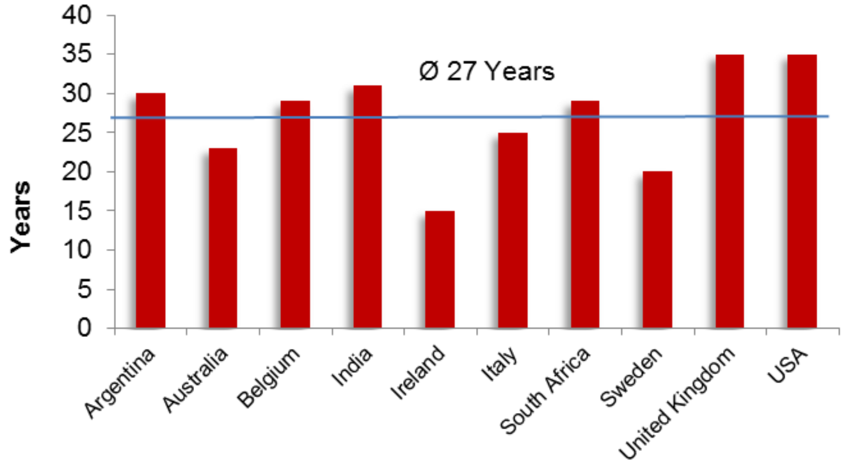
Due to the above mentioned facts, the majority of Western nations faces the stark choice between rigid spending cuts, marked tax increases (or a combination of both), resp. a somewhat more subtle method, namely pronounced financial repression. Since the time shortly before elections always represents a 'period of focused unreason'[86], the supposed magic formula can be quickly found, since the political implications of rigid austerity packages and large tax increases are widely unpopular and represent a considerable obstacle to reelection. Moreover, austerity measures often go hand in hand with social unrest.[87]

"History shows that once an enormous debt has been incurred by a nation, there are only two ways to solve it: one is simply to declare bankruptcy – repudiate the debt. The other is to inflate the currency and thus to destroy the wealth of the ordinary citizen"
Adam Smith

The term 'financial repression' was first employed by McKinnon and Shaw in 1973[88] and has been rediscovered in the course of the current crisis by Reinhart and Sbrancia in their paper "The Liquidation of Government Debt". According to the definition, financial repression describes an economic policy in which capital controls and regulations are implemented by governments and central banks, the aim of which is the distortion of financial market prices.[89] Financial repression always means a combination of different measures that lead to a notable narrowing of the investment universe for investors. Money is thus channeled into specific directions, and would in a more liberal environment flow into different asset classes. **Moreover, the aim is to create a 'home bias', with the explicit goal of easing debt reduction for the public sector.**

84) see "Transmissionsprozess: Die Rolle von Erwartungen und imperfekter Information" (Transmission process: the role of expectations and imperfect information), Daniel Niedermayer
85) see: "Doubling Your Monetary Base and Surviving: Some International Experience", Fed St. Louis, Richard G. Anderson, Charles S. Gascon, and Yang Liu
86) Michael Häupl, currently mayor of Vienna, SPÖ (socialist party)
87) according to Bridgewater, spending cuts of 3% of GDP or more lead to a notable increase in the frequency of protests, strikes and unrest.
88) see: "Money and Capital in Economic Development" resp. "Financial Deepening in Economic Development"
89) see: "Finanzielle Repression findet bereits statt" (Financial repression is already in train), Allianz Global Investors, Stefan Hofrichter

Duration of Different Episodes of Financial Repression



Source: Reinhart & Sbrancia, Incrementum AG

Due to negative real interest rates savers lose some EUR 100 billion per year

One of the most important goals of financial repression is to hold nominal interest rates lower than the rate of price increases. This lowers the government's interest expense and contributes to reducing the debt burden in real terms. One man's joy is another man's sorrow: According to the World Bank, real interest rates are currently in negative territory in 23 countries. Savers worldwide lose some € 100 billion per year because of this.[90]

The Pillars of Financial Repression[91]:

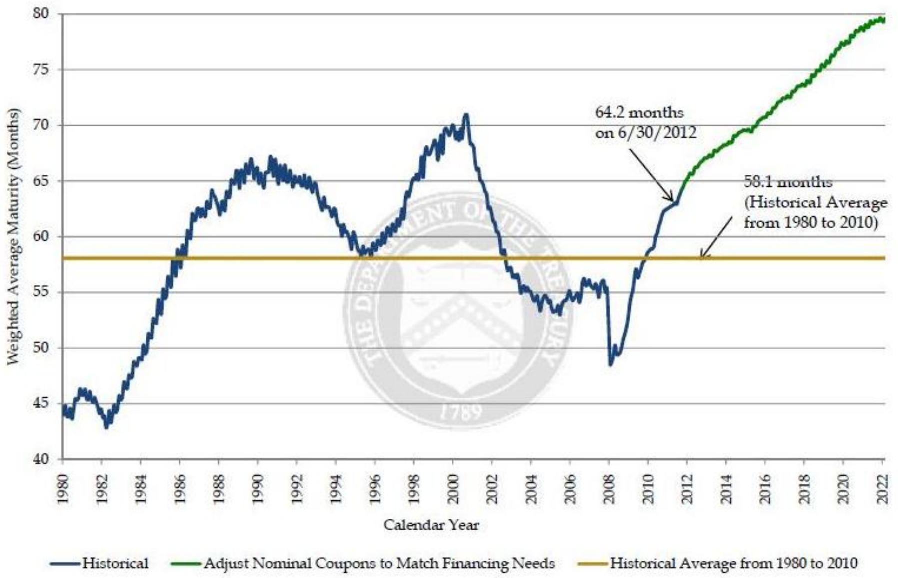
- Strict investment regulations (Solvency II, Basel III) – for instance, there is no need to hold risk capital in reserve for European government bonds, under the pretext of attractive liquidity ratios and non-existent risk.
- Negative real interest rates
- Interest rate ceilings (artificially fixed interest rate limits), long term interest rates are thereby much lower than the fundamental backdrop would suggest
- Open credit dirigisme (e.g. China)
- Nationalizations
- Regulation of cross-border capital movements (e.g. in Brazil a duty is charged on foreign capital inflows)
- Prohibition of unwanted trading practices such as e.g. naked short selling
- Compulsory loans
- Prohibition of certain investment assets (e.g. gold?)
- Special taxes (e.g. securities taxes, financial transaction taxes, wealth taxes, higher value added tax on silver, import duties on gold in India, etc.)
- Direct interventions, such as government intervention in pension funds (Portugal, Ireland, France, Hungary) and subsequent redeployment of investments in favor of government bonds
- Growing discrepancy between financing costs of private sector participants versus governments
- Haircuts on deposits (e.g. Cyprus)

90) http://www.boerse.de/geldanlage/Aktienhausse-2-Der-Mut-zum-Risiko-wird-belohnt-/7400888
91) see: “The Liquidation of Government Debt”, Carmen Reinhart and M. Belen Sbrancia

"If a policy is pursued over a long period which postpones and delays necessary movements, the result must be that what ought to have been a gradual process of change becomes in the end a problem of the necessity of mass transfers within a short period."
Friedrich August von Hayek

As the standard example for the 'success story' of financial repression, the post-war period in the US is most often cited. With so-called 'Regulation Q', interest payments on demand deposits were prohibited, international capital movements strictly regulated and the prohibition of private gold ownership more strictly executed. Moreover, liquid short term bonds were exchanged for illiquid longer term ones. This shows another parallel to the present, as the increase in the maturities of outstanding bonds[92] is a central component of financial repression.[93]

US Treasury Weighted Average Maturity of Marketable Debt



Source: U.S. Treasury Office of Debt Management, Econbrowser.com

Comparison with financial repression of the post-war period not valid – twin deleveraging would be hyper-deflationary

We are of the opinion that the comparison between the post-war period of financial repression and the current situation is inappropriate. Although public debt was far higher in the post-war period, private households, banks and corporations were barely indebted at the time. **Today a twin deleveraging would be hyper-deflationary.** Moreover, the real economy at the time profited from the enormous investment activity in the course of reconstruction, urbanization, increasing trade liberalization and especially from much more favorable demographic conditions.

German Institute for Economic Research and Boston Consulting Group recommend compulsory bonds and wealth taxes

The German Institute of Economic Research (DIW) believes compulsory bonds represent an appropriate means to deal with over-indebtedness. Such bonds have often been issued in the course of history, however most of the time in order to finance wars. A forcible levy to the tune of 10% on all wealth exceeding € 250,000 would bring in € 230 billion for Germany's budget. The Boston Consulting Group recommends something similar.[94] It is supposedly *"obvious that those who own assets, and who are effectively laboring under the illusion that they are still fully covered and will be paid back, should be subjected to a tax and thereby so to speak clean up after the party, clean up the legacies of the past 30 years",* according to Daniel Stelter, senior partner at BGC. **To merely demand a tax on bank**

92) Maturity Extension Program – MEP
93) see: „The Solution…is the Problem, Part II", Eric Sprott & Etienne Bordeleau, Sprott Asset Management
94) http://deutsche-wirtschafts-nachrichten.de/2013/04/22/boston-consulting-euro-krise-muss-mit-radikaler-enteignung-geloest-werden/

deposits as has happened in Cyprus is not enough, according to Stelter. He proposes a combination of capital levies, wealth taxes, and an inheritance tax.

Conclusion

We expect that financial repression in all its different facets is going to gain more and more in importance over coming years. We regard this as a terrible long term strategy, as it will only achieve redistribution and a delay, but no solution to the problem.

6. APPROACHES TO GOLD PRICE VALUATION

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

According to Carl Menger, the founder of the Austrian School of Economics, the value of a good is the result of its expected marginal utility on the part of the valuing individual. The value of a good or a service is therefore not an objective magnitude, but always the result of a subjective act of evaluation. Since there exist as many preference scales as human beings (and because this ranking of preferences is also continually changing), is it will never be possible to ascertain objectively what the value of a thing or a service should be. **It is therefore impossible to calculate a fair value for gold.**

a) *Quantitative Valuation Model: Scenario Analysis*

„***In an ideal state of society perhaps the intrinsic quality of money might entirely disappear and be replaced by the value derived from the control of the state. But for that to occur the control of the state would need to be perfect in authority and god-like in intelligence***"
Aristoteles

In order to nevertheless propose a 'valuation' of the gold price, we have constructed a model that takes a broad spectrum of different expectations by market participants into account. This is at the same time an attempt to explain the multitude of currently especially strongly opposed opinions regarding the future gold price trend.

The starting point of our deliberations are the (often implicit) assumptions of market participants regarding future monetary policy in the US. We believe that the following two parameters are of crucial importance in this context:

1. the future development of the central bank's balance sheet
2. the future implicit balance sheet coverage in terms of gold

An explanatory note on the historical degree of gold cover of the US central bank balance sheet:

In a currency system based on a full gold standard, the central bank's balance sheet would exhibit a coverage ratio of 100 percent with respect to gold. The entire value of the banknotes issued by the central bank plus the bank reserves of commercial banks at the central bank would thus be backed by gold.

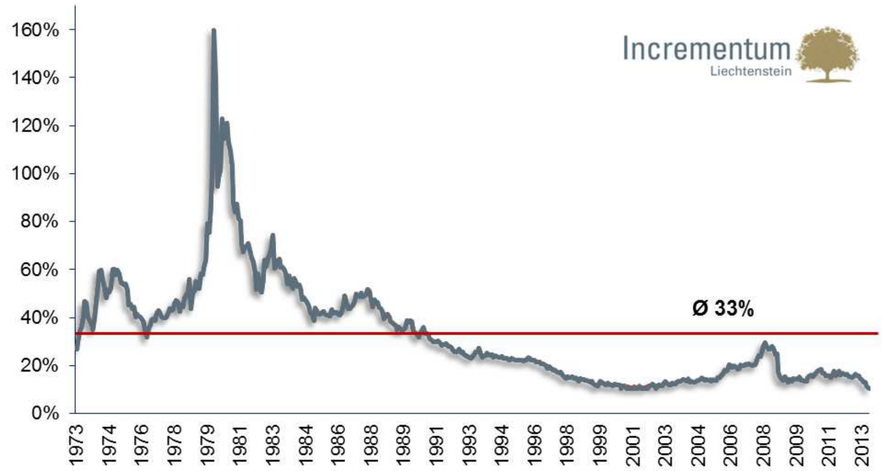
Average gold coverage ratio of the US central bank balance sheet amounts to 33% since 1971

The Federal Reserve Act of 1914 decreed a minimum gold backing of 40%. In order to attain this level today, the price of gold would have to rise to $5,100. From 1945 to 1971, only a 25% gold cover was necessary. In order for the gold cover to reach 25%, the gold price would have to be at $3,200. Since the end of the Bretton Woods system, there is no longer a compulsory gold cover. Nevertheless, central banks continue to hold gold reserves.[95] Since 1971 the gold cover is quite volatile due to gold's free market price.

The average coverage ratio since 1973 amounts to 33%. The minimum gold backing was slightly above 10% and the maximum at 160%. At current prices, the gold backing amounts to 11.5%.

95) whether this is only due to 'tradition' or whether central banks still regard gold as money behind closed doors isn't entirely clear as of this point in time.

Gold Coverage of the Monetary Base in % (Market Value of US Gold Reserves/Base Money)



Source: Incrementum AG, QB Asset Management, Federal Reserve St. Louis

A change of the gold coverage ratio can be the result of two factors: a change in the market price of gold or a change in the gold reserves held by the central bank. The US central bank has held an unchanged stock of gold since 1980.[96] We don't expect this stock to change in coming years. In the hypothetical case of a change in the gold coverage ratio by means of an increase or decrease of the stock of gold reserves, there would be an effect on prices as well, so that this would automatically be associated with an increase, resp. decrease, of the gold price.

Gold coverage ratio indicates the degree of monetization of gold

A basic premise of our model is that an intensification of central bank balance sheet expansion will in the long term result in higher market prices and thereby result in a higher coverage ratio as well, and vice versa. The gold coverage ratio in a way also expresses the "degree of monetization" of gold. Analogous to this it is consistent that in an environment of rising confidence in fiat money, the degree of gold monetization, resp. the gold coverage ratio, will tend to decline and vice versa.

In order to calculate price targets based on these two parameters (central bank balance sheet and implied gold coverage ratio), we have developed the following four scenarios regarding the future trend of Quantitative Easing (QE) and weighted them by different probabilities of occurrence[97]:

1. **Exit According to Plan (25% probability)** Fed puts the brake on QE ('tapering'), then stops QE and begins with the exit

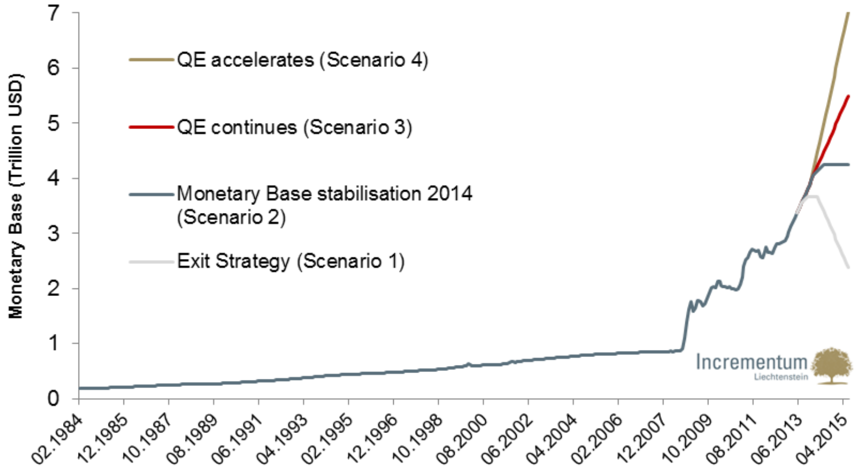
2. **QE Tapering and Stabilization (30% probability)** Fed tapers QE, subsequently stops it, but leaves the balance sheet stable thereafter

96) Technically the US treasury is the owner of gold reserves and the central bank merely the administrator.
97) We want to point out that these assumptions clearly deviate from Erste Group Research forecasts. For further information, please see "Fed: less downside risks but low inflation" https://produkte.erstegroup.com/CorporateClients/de/ResearchCenter/Overview/Research_Detail/index.phtml?ID_ENTRY=21597 and "Interest rate outlook – 'it's the economy, stupid' https://produkte.erstegroup.com/CorporateClients/de/ResearchCenter/Overview/Research_Detail/index.phtml?ID_ENTRY=21500

3. **QE Continues (30% probability)** The asset purchases continue for at least the next 24 months at the current level

4. **QE Accelerates (15% probability)** Negative economic developments and/or problems in the banking sector result in an increase of the current level of QE purchases.

Four Scenarios for the Balance Sheet Total of the Federal Reserve



Source: Incrementum AG, Federal Reserve St. Louis

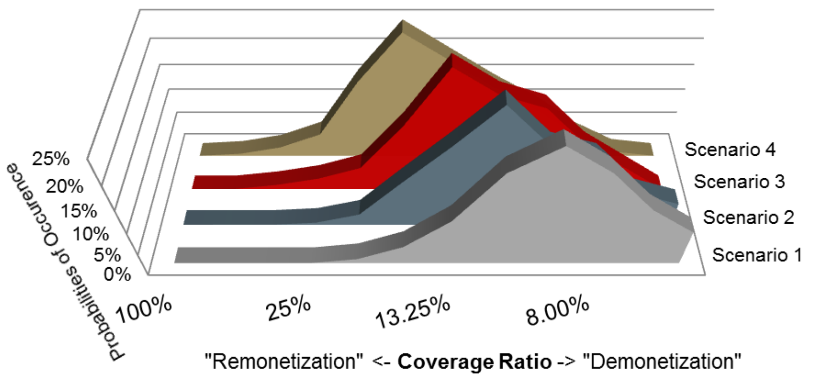
As can be seen from the chart, the scenarios we have picked diverge a great deal from each other. In our opinion, this also mirrors the different assessments of market participants with regard to the effectiveness and the future progression of the QE program.

We want at this point refer to the crystal clear language of Fed Chairman Bernanke, who frequently points out the non-deterministic nature of the exit from the QE program. The latest reference he made in a press conference on June, 20th 2013:

*„Our policies are tied to how the outlook evolves, and that should provide some comfort to markets because they will understand, I hope, that we will be providing **whatever support is necessary** if the economy does not improve along the lines that we expect, we provide **additional support**. If financial conditions evolve in a way that's inconsistent with economic recovery, **we will provide support**."*

For each of our four scenarios we have modeled the probabilities of occurrence (distributions) regarding the future gold coverage ratio.

Probabilities of Occurrence and Implied Gold Coverage Ratio of the Four Scenarios



	100%	40%	33%	25%	20%	15%	13%	12%	10%	8%	6%	4%
Scenario 1	0.00%	0.00%	0.00%	0.00%	1.00%	4.00%	10.00%	20.00%	25.00%	20.00%	12.50%	7.50%
Scenario 2	0.00%	0.00%	0.00%	0.50%	2.50%	10.00%	17.25%	25.00%	17.25%	15.00%	7.50%	5.00%
Scenario 3	0.00%	0.00%	1.00%	2.50%	5.00%	14.00%	25.00%	20.00%	17.50%	10.00%	5.00%	0.00%
Scenario 4	0.00%	0.50%	2.00%	5.00%	16.00%	25.00%	20.00%	15.00%	10.50%	5.00%	1.00%	0.00%

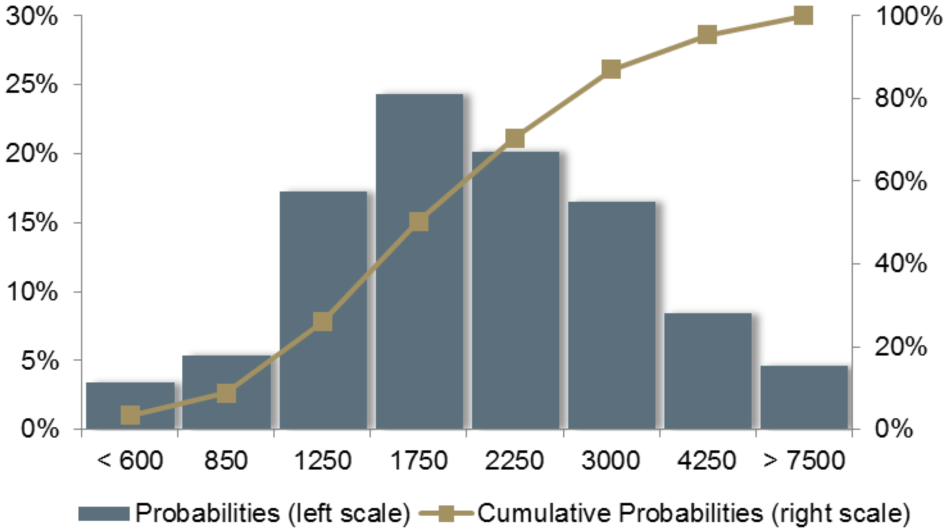
Source: Incrementum AG

For scenarios 3 and 4 we have modeled low probabilities of occurrence with a higher implied gold coverage ratio. This so to speak represents the fat tails for the paper dollar. **Even if one calculates these extreme scenarios with only a very little probability of occurrence, they have nevertheless a notable effect in terms of the risk premium embedded in the price.**

Positively skewed distribution of future gold price

Performing the calculation with respect to all four scenarios, we have determined the following distribution for these highly divergent scenarios. It is striking that the distribution is flat and positively skewed. In our opinion that makes sense, insofar as depending on expectations regarding the effect and further progression of the current monetary experiment, opinions diverge strongly. Market participants expecting that QE will soon achieve its goals, that the economy will soon attain its so-called 'escape velocity' and that we are on the brink of a self-sustaining recovery, are represented by the left-hand side of the distribution. Those who are uncertain regarding the monetary experiment are represented by the middle, and those market participants who are especially skeptical with regard to QE, respectively are even questioning the current paper money system, can be found on the far right of the distribution.

Calculated Probability Distribution of all Scenarios and the Associated Gold Price



Source: Incrementum AG

Using the described scenarios and probabilities, the model calculates a long term value of $2,230 for an ounce of gold. As we have already explained, we assume that there will be a gradual increase of gold's monetary role, which is in keeping with this result.

b) Relative Value Analysis through Ratios

Ratio analysis illustrates relative over- or undervaluation

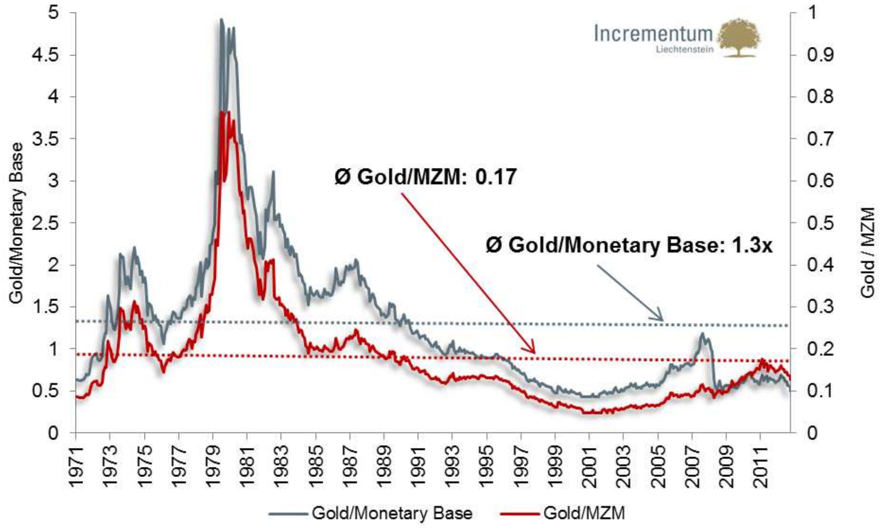
In addition to our monetary valuation model, we want to analyze the relative over- or undervaluation of gold with respect to other asset classes. Ratio analysis is a very simple and extremely useful facet of technical analysis. By means of a simple division of one value by another, a ratio is formed, which can be plotted as a line chart. Since we have employed gold as the numerator (e.g. gold/oil), a rising ratio shows growing relative strength of gold relative to the denominator.

1) Gold versus Monetary Aggregates

Based on the following ratio chart it can be seen that gold is 'cheap' relative to both the monetary base (M0) as well as compared to MZM[98], and trades clearly below the long term average value.

98) MZM (money of zero maturity) is a broad monetary aggregate that includes cash currency, demand deposits, savings deposits, retail money market funds plus institutional fixed deposits and money market funds

Gold vs. Monetary Aggregates (M0 and MZM)

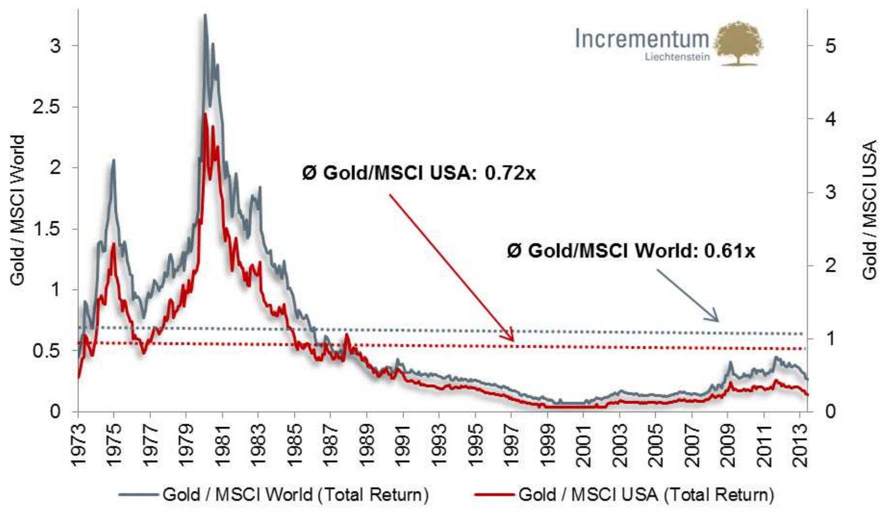


Source: Incrementum AG, Federal Reserve St. Louis

2) Gold versus Stock Market Indices

Also in comparison to stock market indices (total return indices, i.e., including reinvested dividends) there is anything but an overvaluation of gold in evidence. Both in relation to the MSCI USA and MSCI World depicted below, as well as in comparison to DAX, DJIA and MSCI Europe (total return in each instance), gold is trading below the long term average on a relative basis.

Gold vs. MSCI USA & MSCI World

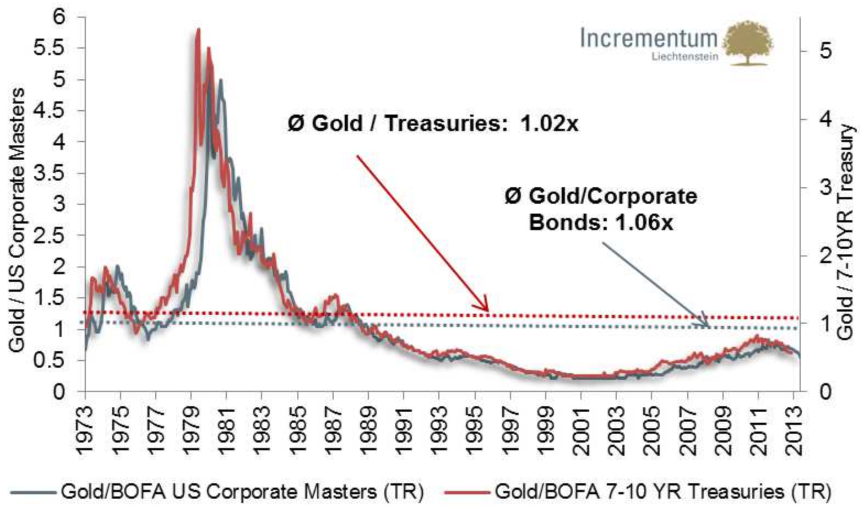


Source: Incrementum AG, Federal Reserve St. Louis

3) Gold vs. Bonds

If one compares the gold price with bond indices (also total return), there is likewise anything but an overvaluation of gold visible. Both in relation to corporate bonds[99] as well as relative to US treasury bonds[100], gold trades below the long term average.

Gold vs. BOFA US Corporate Masters & BOFA ML 7-10 YR Treasury



Source: Incrementum AG, Federal Reserve St. Louis

Gold vs. Art, rare Wine and Bonds clearly undervalued

Below we show a few more ratios between gold and commodities, respectively real assets more generally. One can see that gold is above the long term average compared to US real estate, but also relative to silver and the commodity index CCI. Relative to art, high yield bonds and collectible wines, gold appears undervalued.

Ratio	current value	long term average	Low	High	gold expensive – yes/no?
Gold/Silver	61x	56x	14x	99x	Yes
Gold/Oil	14.6x	15x	6.5x	39x	Fair
Gold/CCI[101]	2.6x	1.6x	0.6x	3.2x	Yes
Gold/Fine Wine[102]	3.1x	4.9x	1.5x	15.1	No
Gold/Sotheby's[103]	14.1x	16.2x	4.2x	54.3x	No
Gold/High Yields[104]	1.3x	1.7x	0.69x	4.5x	No
Gold/Housing[105]	0.006x	0.0035x	0.0014	0.0095	Yes

Source: Incrementum AG, Datastream, Liv-ex, Federal Reserve St. Louis

99) BOFA ML US CORP MASTERS Total Return
100) BOFA ML 7-10YR TREASURIES Total Return
101) Continuous Commodity Index
102) Liv-ex Fine Wine Investables Index since January 1988
103) We use the stock price of Sotheby's as a proxy for the art market
104) BOFA ML US High Yield Masters Total Return, from 1986
105) US Average Existing Home Price, Single-family & Condo

Gold remains well below long term averages relative to most other asset classes, especially compared to financial assets

The long term comparison between gold and other asset classes thus clearly paints a positive picture. Both in relation to monetary aggregates as well as relative to stocks and bonds, gold remains below long term average values. Relative to 'real assets' some ratios are above the average, however, they are not at extreme levels. The often cited argument that there is a 'gold bubble' can therefore be easily refuted. **Bull markets end in euphoria, which buttresses our argument that there will be a final stage in the form of a trend acceleration phase.**[106]

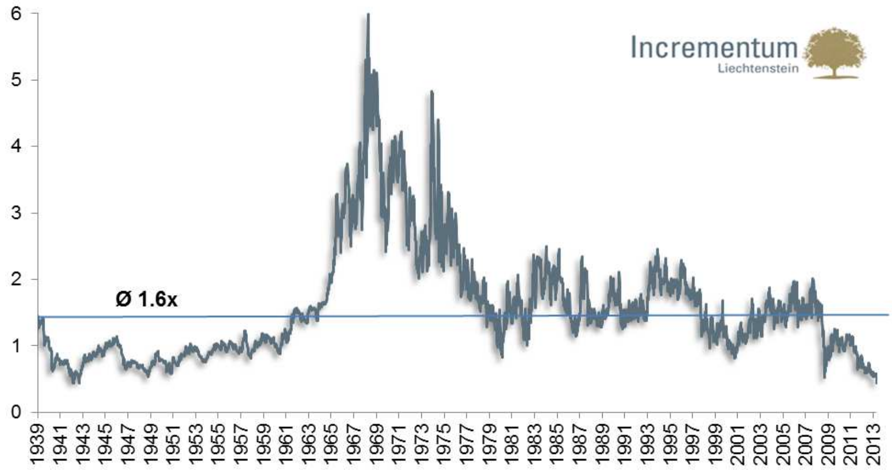
106) see 'In Gold We Trust 2011'. The third phase is ultimately the euphoria phase, which ends with a 'blow-off', i.e., a parabolic advance. At the end of each cycle distribution by the 'smart money' occurs. From a sentiment perspective this phase is marked by excessive optimism and a 'this time it's different' mentality

7. GOLD STOCKS CLOSE TO A TREND CHANGE?

Gold Shares Relative to Gold at the Lowest Level in More Than 70 Years

If the developments in the gold price were already a disappointment in the past year, the developments in gold stocks – both in relative and absolute terms – were a complete disaster. It appears as though mining stocks are punished by frustrated shareholders for capital-intensive development projects, risky takeovers and strongly rising production costs. That can also be seen in the ratio between gold stocks and gold: **The oldest available gold mining index, the Barron's Gold Mining Index (BGMI) currently trades at the lowest level relative to gold in more than 70 years[107].**

BGMI/Gold at the lowest level since 1943



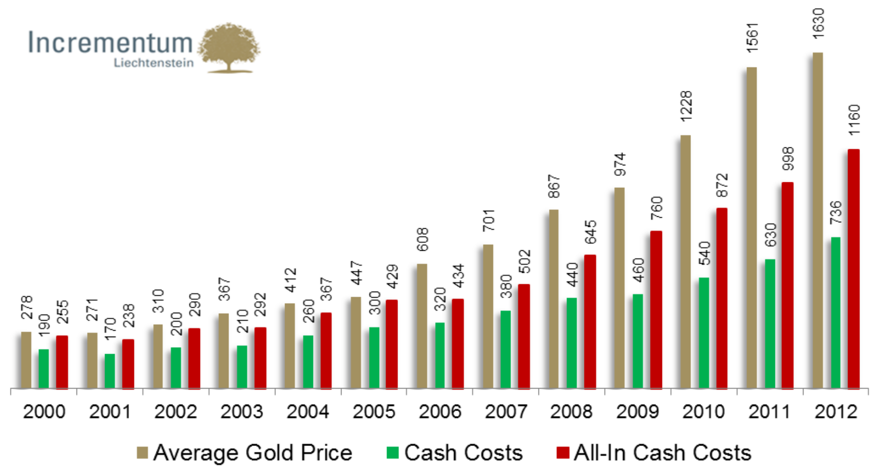
Source: Nick Laird of Sharelynx.com, Barrons, Incrementum AG

Mining executives want to regain confidence by enhancing transparency with regard to costs

The question is now if and when the decline in the mining stocks will finally subside. An important step toward regaining the confidence of investors could be enhanced transparency with regard to costs. Thus Yamana, Barrick Gold and Goldcorp will henceforth also publish their 'all in sustaining cash costs'. They include, apart from cash costs (i.e., the operative expenses associated with mining activity), also administrative costs, taxes, capital expenditure for maintenance and development of mines, capital costs as well as exploration costs. **In Q4 of 2012, this number stood at $ 941 per ounce, and hence was 50% higher than cash costs[108].**

107) The BGMI includes currently inter alia Barrick Gold, Freeport, Goldcorp and Kinross Gold
108) Gold Miners Come Clean on Costs After Lost 6 Years“, Bloomberg

Average Gold Price vs. Cash Costs vs. All-In Cash Costs



Source: Company Reports, Bloomberg, JCF Factset, Incrementum AG

We believe that the mantra of eternally rising mining costs is erroneous

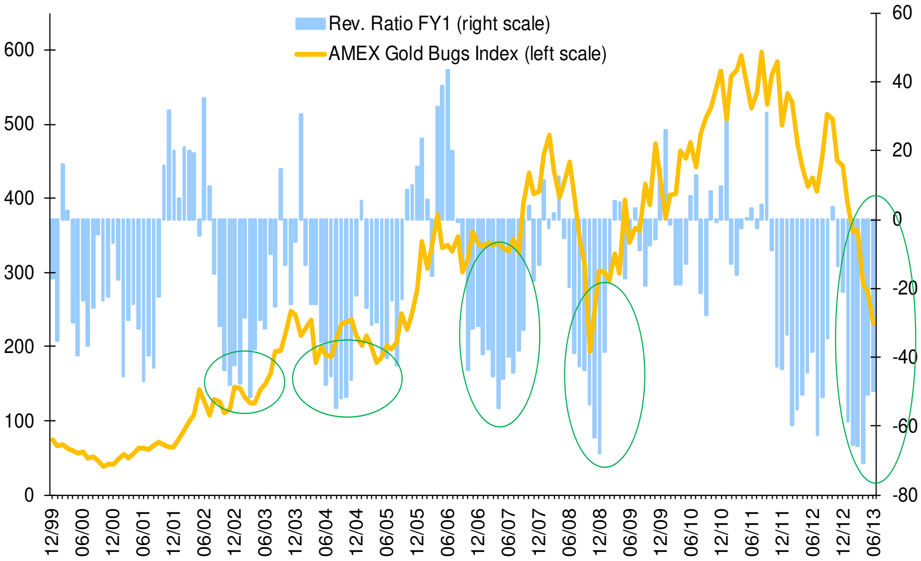
The extrapolation of rising costs into eternity appears to be the current consensus opinion. We are skeptical with regard to this. Due to anemic economic growth and the sharp decline in commodity prices, many input costs have already stopped rising, respectively are already declining[109]. Thus prices for industrial off-road vehicle tires, explosives as well as labor costs (as a result of the current brutal market adjustment) have recently declined. **We therefore believe that the mantra of 'eternally rising mining costs' is erroneous and expect an end to rising costs, or even a deflation of mining costs.**

Revision Ratio Signals Maximum Pessimism

Now that gold stocks are already 60% below their peak levels[110], we see that on the part of sell-side analysts – in typical pro-cyclical manner – a collective downward revision of earnings expectations is in train. This classical herding behavior is often a reliable buy signal. If one compares revisions with price trends in the Gold Bugs Index (golden line, left-hand scale), one can see that the times of the greatest pessimism are most often providing reliable buy signals. **Therefore the revision ratio can be interpreted as a comforting contrary indicator.**

109) see: Acting-man.com, „Why Gold Stocks Remain Subdued“
110) as measured by the all time high of the Amex Gold Bugs Index

Revision Ratio Gold Stocks

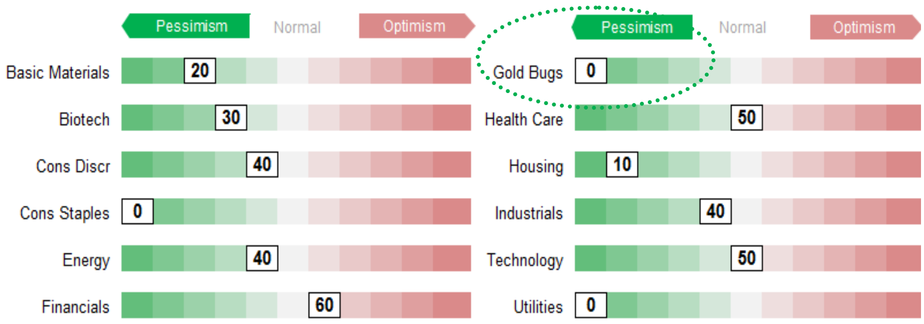


Source: JCF Factset, Erste Group Research

While analysts are becoming increasingly bearish, company insiders are becoming increasingly bullish. According to INK Research, insider buying has recently reached a new all time high. The last time this happened was in October of 2008, close to the bottom in gold mining stocks[111].

The extremely negative sentiment toward gold stocks can also be discerned from the following table:

Stock and Sector Sentiment (June 21, 2013)



Source: www.sentimentrader.com

Conclusion, Gold Stocks[112]

Gold Stocks: The Ultimate Contarian Play?

The industry currently goes through a major period of change. It appears as though the industry is in the process of altering its priorities. Profitability, disciplined capital deployment and stable cash flows per ounce of gold appear to be preferred over maximizing gold production. A great many projects have in recent months been sold or put on ice[113], and new CEOs have been hired. We believe that the new commitment to

111) see: "Nobody Likes the Gold Stocks – Except Insiders", Acting-man.com,
112) as we have stated last year already, we want to stress that we regard gold itself as a currency, and hence as a form of savings, while we regard gold stocks as an *investment*
113) for instance, Barrick Gold (Donlin Creek), Goldcorp (El Morro), Osisko (Hammond Reef)

transparent cost reporting, greater financial discipline and shareholder value is a crucial – if quite late in coming – insight by the sector. Whether or not this new focus is merely lip service is something that will become evident in coming quarters.

We furthermore assume that royalty and gold-stream stocks will be outperforming. Since their cost basis is largely fixed and the project related risk far better diversified than at run-of-the-mill mining companies, royalty and streaming plays should continue to show relative strength in the context of high risk aversion.

8. CONCLUSION

Don't trade your hedge!

We are firmly convinced that the fundamental argument in favor of gold remains intact. There exists no back-test for the current era of finance. Never before have such enormous monetary policy experiments taken place on a global basis. **If there was ever a time when monetary insurance was needed, it is today.**

***"When you devalue money, you devalue trust"* Dylan Grice**

Gold is not only a store of value, but also a means of communication[114]. At its most basic level, economic interaction is most often an exchange between strangers. Therefore, there has to be a certain degree of trust between strangers. Money is the means for exchanging this trust. Trust in financial markets is expressed in the form of yields. The less trustworthy a borrower, the higher the yield creditors will demand will be[115]. However, if there are interventions, they increase the fragility of trust. Credit is after all 'suspicion asleep', which is also the reason why it is so difficult to forecast debt crises with precision. **The precise point at which confidence collapses and creditors lose their trust in the creditworthiness of borrowers is impossible to forecast[116].**

***"As the supply of gold/silver is relatively fixed, however, higher insurance demand implies higher prices. The bull market in gold and silver is primarily a bull market in financial insurance."* John Butler**

We believe gold should continue to be an integral part of investment portfolios. Gold is the only liquid investment asset that neither involves a liability nor a creditor relationship. It is the only international means of payment independent of governments, and has survived every war and national bankruptcy. Its monetary importance, which has established and manifested itself in the course of the past several centuries, is in the process of being rediscovered.

***"Inflation is a more fundamental danger than speculative investment. Some countries seem to be in the unusual situation where they are trying to create inflation. They will come to regret that."* Paul Volcker**

Contrary to 1979/1980, the current gold bull market will unlikely end due to a sudden strong rise in interest rates, as the balance sheets of governments, households and corporations are tainted by huge debt. **In the current environment, this would lead to a deflationary depression.** According to the BIS, the combined debt burden of governments, households and non-financial corporations in the 18 OECD core countries has risen from 160% of GDP in 1980 to 340% of GDP in 2012.[117]

Negative real interest rates are still to be expected over the medium term

In order to counter the current problems in the financial sector, but also in the real economy, the Fed, the Bank of Japan, the Bank of England and the ECB are going to continue to hold interest rates at a low level. There has always been a **strong link between negative real interest rates and the gold price.**

***"Gold is not a drug that cures the disease but merely a symbol of the flight from dishonesty – a symbol of independence, honest money and permanence."* Anthony Deden**

We believe it is highly unlikely that the European crisis countries (Italy, Spain, Portugal) will sell their gold reserves. For one thing, such sales would lower their debt ratios only marginally, for another this would also be an admission of weakness and would only serve to shake already battered market confidence even more. It would moreover be technically difficult, as the central bank gold agreement that is in force until September 2014 limits sales by European central banks to 400 tons per year.

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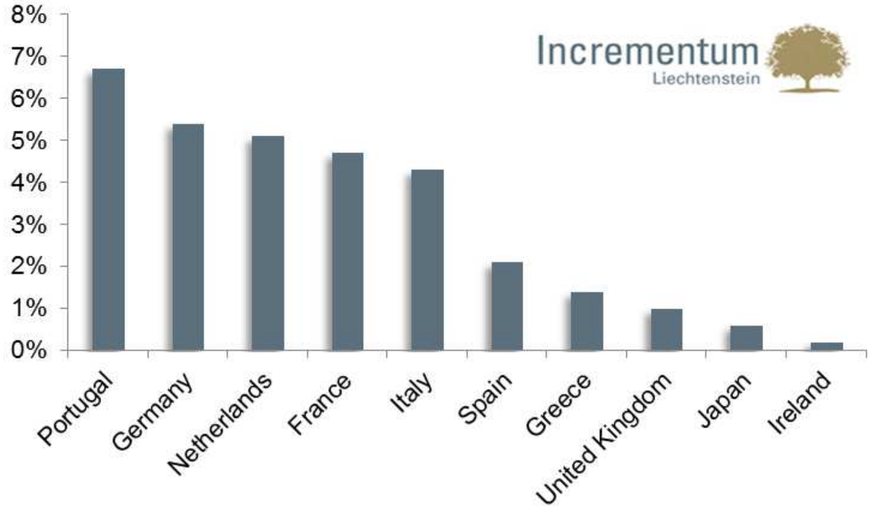
114) see: Dylan Grice, Edelweiss Journal
115) the ownership of gold by contrast signifies pure property and involves no liability whatsoever. That also explains why it pays no interest: it does not contain counterparty risk.
116) see „The „Bang" Moment is Here, John Mauldin
117) „Debt of Nations", Citi GPS, Willem Buiter, Ebrahim Rahbari

Gold Holdings of Euro Zone Countries Cover Less than 10% of Their Overall Debt



Source: UBS, WGC, Eurostat, Bloomberg, calculated per Q3 2012, resp. a gold price of $1,400 and EUR/USD 1.30

Gold Stocks: The Ultimate Contarian Play?

The gold mining industry currently goes through a major period of change. It appears as though the industry is in the process of altering its priorities. Profitability, disciplined capital deployment and stable cash flows per ounce of gold appear to be preferred over maximizing gold production. We believe that the new commitment to transparent cost reporting, greater financial discipline and shareholder value is a crucial – if quite late in coming – insight by the sector. **From a sentiment perspective, gold mining stocks are probably "the ultimate contrarian play"**

Quantitative valuation model calculates a gold price of $2,230

For the first time we have performed a quantitative evaluation of gold in this gold report. Our model incorporates a wide range of scenarios for US monetary policy. Even if tail events are taken into account with only minor probablitites, the model justifies a considerable risk premium. **Based on our parameters, a gold price target of $2,230 has resulted.**

CoT data and sentiment confirm that a bottoming process will soon begin – however, only little momentum is to be expected before August

From a technical perspective, we assume that the gold price is in a long term consolidation phase since its all-time high in August 2011, similar to the mid cycle correction of 1974-1976. Due to extremely negative sentiment, the clearly positive implications of the CoT data, and extremely oversold readings, we assume that a bottoming process will soon begin. **From a seasonal perspective, only very little momentum should be expected before August.**

„Only buy something that you'd be perfectly happy to hold if the market shut down for 10 years"
Warren Buffett

Regarding the sentiment backdrop, we see anything but euphoria in gold. Skepticism, fear and panic are never observable at the end of a long term bull market. **We therefore assume that our long term price target of $2,300 per ounce, already formulated several years ago, remains realistic.**

In the course of the price collapse, massive technical damage has been inflicted. We are therefore strongly convinced that repairing the chart picture is going to take some time. We regard the $1,480 level as the next 12 month target.

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