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Global

Commodities
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Gold's New Reality

Executive Summary

- This week has witnessed a once in a generation move in the gold price. On Monday, daily losses in the gold price were on a par with the declines that occurred once in January 1980 and once in February 1983.

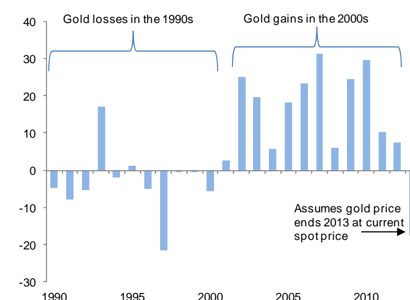
- 2013 will therefore most likely mark the first year gold has posted negative annual returns since the year 2000. In our view, what had been a reliable source of positive returns for the past 12 years has ended.

- While we may see cyclical strength, for example if the US succumbs to a mid-year slowdown which reignites QE expectations, we believe we are witnessing a structural change in the gold market such that many of the forces that had powered gold higher over the past decade are fading and in some instances moving into reverse.

- In our view, the next step will be to assess the equilibrium price for gold. We explore various techniques to establish fair value. This includes estimating the level of the gold price which would eliminate the premium of gold to other commodities that has appeared since the onset of the financial crisis.

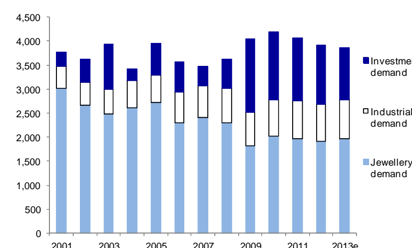
- We examine the level of the gold price that is required to bring gold's valuation versus other physical assets such as crude oil and copper back towards historical averages. We find that for this to occur would require gold prices trading somewhere between USD1,050/oz and USD1,500/oz.

Headwinds To Tailwinds & Back Again



Source: Bloomberg Finance LP

Gold demand by type in tonnes



Source: Deutsche Bank

Gold's New Reality

From Tailwinds To Headwinds

The move higher in the gold price since 2001 was driven, in our view, by a collapse in real interest rates, a rising US equity risk premium, a new long term downtrend in the US dollar, de-hedging by gold producing companies, a more coordinated programme of European central bank gold sales and rising geopolitical risk compared to the 1990s. Private sector investment in gold was also facilitated by the launch of physically backed gold Exchange Traded Funds, which become an efficient route to gain exposure to the underlying gold price particularly when compared to investing in gold producing companies.

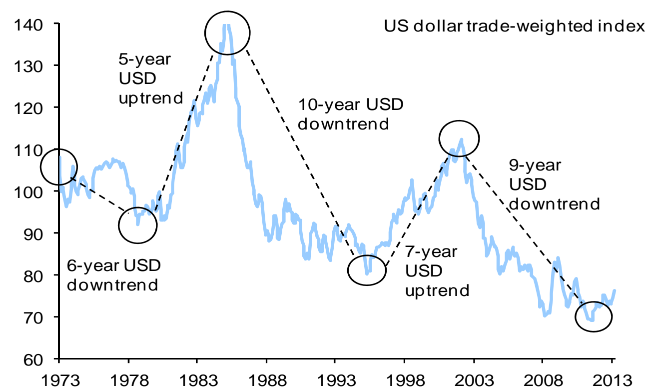
Many of the forces that drove gold prices higher are moving in reverse…

However, many of the forces that drove gold prices higher are now moving in reverse. In retrospect, we believe the first sign of a more hostile environment for gold began to emerge from July 2011. This marked the low point in the US dollar trade-weighted index and the start of what we believe is a new long term uptrend in the US dollar. By February 2013 the case for a more convincing turn in the US dollar had become even more compelling prompting DB's FX Research team to upgrade their medium to long term targets for the US dollar.

Not only would be the US benefit from an improvement in capital flows through the country's superior growth performance, but the US dollar would also benefit from other central banks efforts to weaken their own domestic currencies, such as the Bank of Japan. We expect this new exchange rate environment will see the US dollar appreciate against all major currencies and that this strength will be long in duration. Indeed history shows the US dollar exhibits long run cycles of rising and falling for extended periods of time and that these cycles can last anywhere between 6 to 10 years, Figure 1.

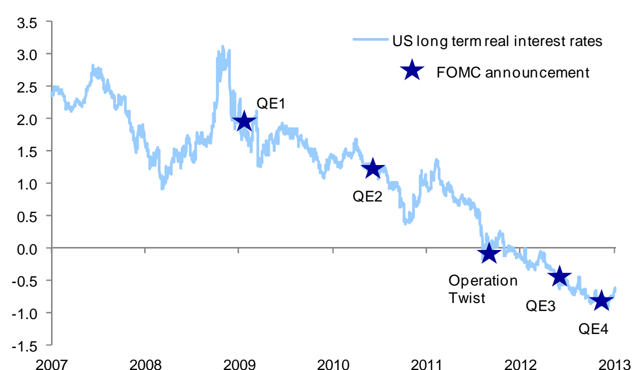
The next market to move against gold was the real interest rate market. While successive rounds of quantitative easing by the Fed had driven real interest rates lower between 2009 and 2012, by December 2012 the decline in real interest rates had moved into reverse, Figure 2.

Figure 1: Long run cycles in the US dollar

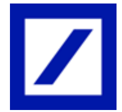


For more details, see DB's Exchange Rate Perspectives, February 28, 2013 "The Dollar Is Back"
Sources: Bloomberg Finance LP, Deutsche Bank

Figure 2: US long term real interest rates



Sources: Bloomberg Finance LP, Deutsche Bank



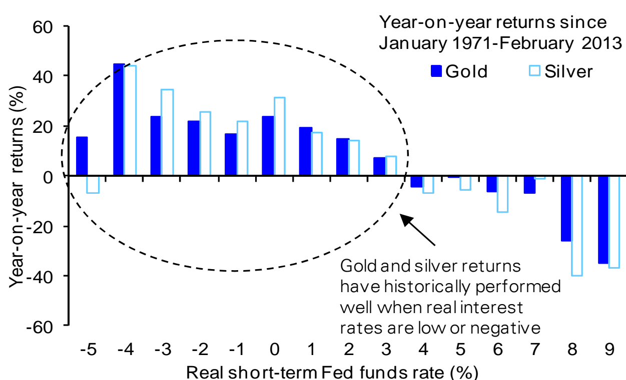
As economic prospects for the US economy began to improve during this year, it led to increasing speculation that the Fed would scale back its programme of QE over time and ultimately encourage negative real interest rates to be eliminated. Historically negative real interest rates have been environments where gold has performed strongly with year on year returns in excess of 20%, Figure 3. If, or when, negative real interest rates in the US disappear then this would, at the margin, increase the opportunity cost of holding gold, a non yielding bearing asset. However, historically it has only been when US real interest rates move above 3% that is has been unambiguously negative for gold returns. However, this is a real interest rate scenario which we believe is unlikely to occur.

...a stronger US dollar, a declining US equity risk premium and rising US real interest rates.

Furthermore, the Great Rotation from fixed income into equities this year has meant that gold has also had to compete more aggressively for risk capital. Indeed a declining US Equity Risk Premium (ERP) has typically been problematic for gold as investors flock to risky assets and punish safe havens such as gold. We find that the 1990s were characterized by a steady decline in the US ERP as investors considered bonds and equities as substitutable assets. As the ERP moved from its extreme lows in 2000 to hit extreme highs during the financial crisis this contributed to the rise in the gold price. However, the ERP peaked in September 2011 and has been moving broadly lower even since, Figure 4. As a result, exchange rate, equity market and real interest rate trends started moving against gold from July 26, 2011, October 3, 2011 and December 10, 2012 respectively. But it was not until December 20, 2012 that holdings in physically backed gold ETFs peaked, Figure 5.

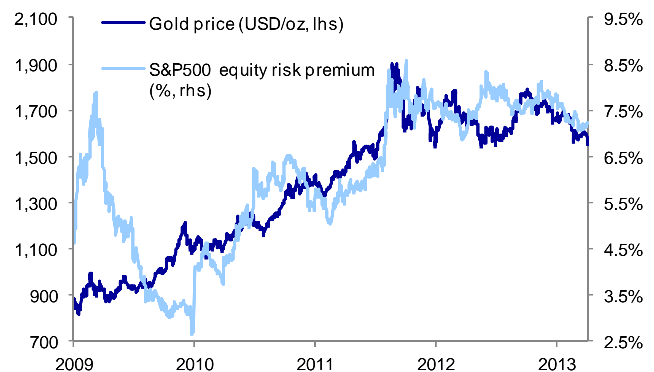
We believe one of gold's many distinctive characteristics is the high share of investor money and physical hoarding that occurs in this market. When we consider the role of investors in driving commodity prices, we typically conclude that so long as there is no physical hoarding by investors of a specific commodity then the impact of their investment in the futures market on the spot price is short term in nature and limited in terms of driving medium to long term price trends. However, in our view this is not the case for gold. Gold stands out as a market where there is physical hoarding. In fact almost one third of global gold demand is made up of investment demand and this exclude jewellery demand for investment purposes. No other commodity market has such a high share of investor participation. Consequently gold is very vulnerable when investor sentiment changes as it has over the past few days and weeks.

Figure 3: Gold & silver returns in different US real interest rate environments



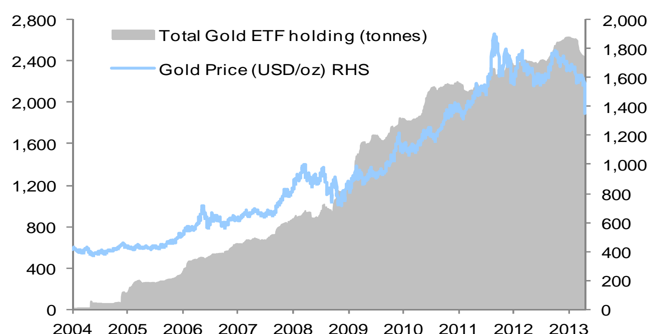
Sources: Bloomberg Finance LP, Deutsche Bank

Figure 4: US equity risk premium & the gold price



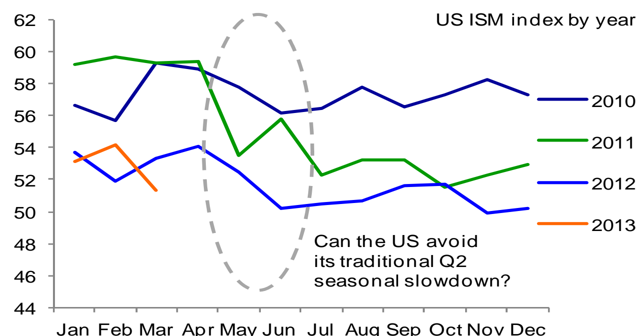
Sources: Bloomberg Finance LP, Deutsche Bank

Figure 5: ETF holdings in gold peaked in December 2012



Sources: Bloomberg Finance LP, Deutsche Bank

Figure 6: US business confidence by year



Source: Deutsche Bank

Consequently our main concern at the moment is the extent of a further liquidation in holdings of gold ETFs, which we believe may be m ore relvant for institutional holders than retail. Indeed in the last few days alone we have seen sales of 68 tonnes from the SPDR gold ETF, which compares to their current holdings of over 1,100 tonnes. Perhaps the best outcome for gold would be a slowdown in the US economy over the next few months and a powerful correction in the US equity market, which might tone down Fed rhetoric towards a withdrawal of QE and stem the tide of investor flows into US equities. However, unlike European stock markets the US equity market is not overvalued on our metrics and would require a considerable downgrade in US growth expectations to trigger a sizeable correction in the S&P500. Even so, we are conscious that for the past three years the US has suffered from a mid-year slowdown in growth, Figure 6. We would therefore watch the US ISM index to whether any unexpected weakness provides cyclical strength to the gold price.

Gold's fortunes are closely tied to the US economic and financial policy outlook

We believe the next step in analyzing the gold market is to establish to what degree the gold price moved into overvalued territory and at what level investors might see value in the event of overshooting to the downside. In June 2010 we assessed at what point the gold price could be extreme. We examined gold in real terms, relative to income, relative to physical assets such as crude oil and copper and relative to financial assets such as the S&P500. Inevitably there was a wide range across these various indicators as to what price levels the gold price could be considered extreme, Figure 7. At the time, we estimated that around USD2,050/oz was the level beyond which the gold price would start to enter overvalued and bubble territory. While we did not reach that number, the peak in the gold price being USD1,900/oz hit in September 2011, the gold price is now responding to its new reality namely that many of the forces that drove gold higher between 2001 and 2011 are now fading and moving into reverse.

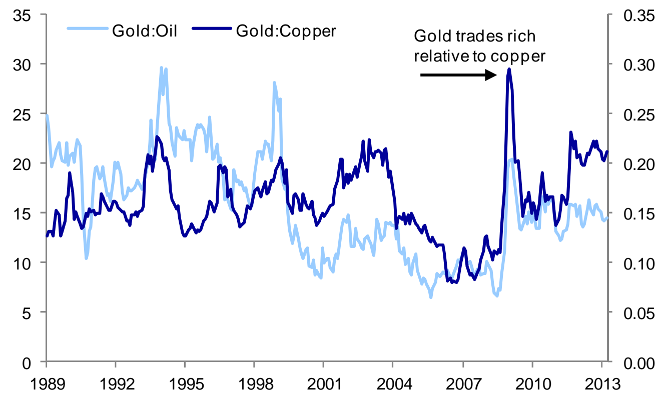
To attempt to assess the fair value for gold we employ various techniques. Typically when we attempt to find the fair value or equilibrium price of a commodity we employ either marginal cost of production or incentive pricing techniques. This tends to be quite successful in the industrial metals and energy markets. However, in the gold market the technique is more problematic since the marginal cost of production and the spot price can deviate significantly and for long periods of time. This reflects the fact that financial drivers not the production costs of gold miners typically dictate prices trends in the gold market. Even so, on our analysis, the long term fair value for gold is USD1,300 per ounce and so close to the current spot price.

Figure 7: The level of the gold price that represents extreme levels of valuation versus a variety of indicators*

Indicator	Gold price level
Analyst forecasting error	1,300
In real terms (PPI)	1,455
As a share of global GDP	1,500
In real terms (CPI)	1,880
Versus base metals	2,100
Relative to per capita income	2,390
Versus crude oil	2,890
As a share of the S&P500	2,960
Average	**2,059**

** Source: Deutsche Bank Commodities Quarterly, June 29, 2010*

Figure 8: Valuing gold versus crude oil & copper

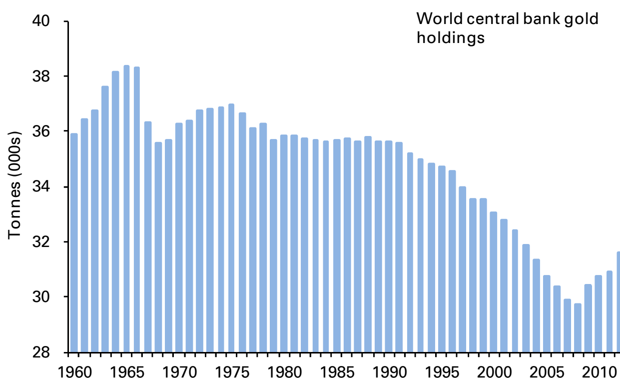


Source: Deutsche Bank, Bloomberg Finance LP

Another method is to value gold versus physical assets such other commodities. We examined the gold to crude oil and gold to copper price ratios, Figure 8. Since the onset of the financial crisis, there had been a significant re-rating of gold such that it was trading rich relative to a number of commodities. In this new environment we would expect the premium of gold to other commodities will be eliminated over time. For example, if we examine the gold to Brent crude oil price ratio, it is currently trading at approximately 13.8 versus a long run average of 15.9.

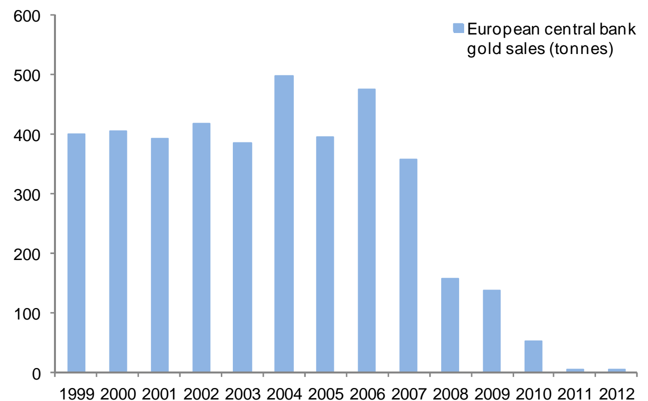
If we assume fair value for Brent at around USD90-95, it would imply gold prices stabilising at around USD1,450-1,500 to bring this ratio in line with historical averages. Repeating the same exercise for copper would imply gold prices slightly lower at around USD1,050. Consequently to bring gold's valuation versus other physical assets such as crude oil and copper back towards historical averages would require gold prices trading somewhere between USD1,050 and USD1,500/oz. This may prove to be the new trading range for gold over the years ahead.

Figure 9: World central bank gold holdings



Source: World Gold Council

Figure 10: European central bank gold sales under successive Central Bank Gold Agreements



Source: World Gold Council (Years run from September 27 to September 26)

Conclusion

We find that financial forces started to move against gold in July 2011, but, it was not until the end of last year that the tailwinds pushing gold prices higher from exchange rate, equity market and real interest rates trends were all moving into reverse. Soon after, holdings in physically backed gold ETFs peaked.

However, central banks may still prove to be reliable source of gold demand going forward. Since 2009, central banks gold holdings have begun to rise for the first time since 1988. This had been triggered primarily by diversification into gold by central banks particularly in the developing world, but, also via a collapse in European central bank gold sales, Figure 10.

However, last week the gold market was also presented with the possibility of an uncoordinated programme of European central bank gold sales in response to the unfolding financial crisis in Cyprus. Indeed events in Cyprus have made it likely that the central bank will be instructed to sell some of its gold reserves setting a possible precedent for other European central banks to follow. Consequently another force that had been supportive for the gold price has potentially become a less favourable environment. Inevitably attention may next turn to the gold mining community and the incentives to hedge their gold exposure.

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Appendix 1

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