Philipp Hildebrand: Reflections on the gold market

Speech by Mr Philipp Hildebrand, Member of the Governing Board of the Swiss National Bank, at the LBMA Conference, Montreux, 26 June 2006.

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Introduction

Thank you for giving me the opportunity to speak to you this morning. The last time a member of the Governing Board of the Swiss National Bank (SNB) had the opportunity to address this audience was in June 1999, when our present Governor Jean-Pierre Roth had the difficult task to explain why the SNB intended to sell 1300 tonnes of its gold reserves. Back then, the gold market environment was quite different: the price of gold had steadily declined to USD 250/oz and there were widespread concerns in the market place that central banks were intending to liquidate a substantial part of their gold reserves.

In seven years, the market has, in many ways, come full circle: the price of gold climbed to above USD 700/oz before receding below USD 600/oz, levels that were last seen in 1981. Central bank activity in the gold market is not considered as a threat anymore. The agreements of 1999 and 2004 between 15 European central banks - the so-called Washington agreements - have removed much of the uncertainty regarding central bank sales. Indeed, market rumours today are arguably more concerned about central banks buying gold than they are about central banks selling gold.

As many of you know, the SNB completed its gold sales program fifteen months ago[1]. In total, 1300 tons were sold. The decision to reduce our gold holdings by half was taken for two reasons that were highlighted by experts as early as 1997: First the SNB arguably had more gold than it needed. Switzerland's official gold holdings per capita were five times higher than those of the next G10 country. Second, the SNB had - on a mark-to-market basis - excess capital reserves that were no longer required for monetary purposes. As a result, the decision was taken to sell 1300 tons of gold. In May 2000, as soon as the legal framework had been amended to allow market sales, the SNB started it gold sales operations. We adopted a very transparent strategy and tried, within the constraints of the Washington Agreement, to maximize the proceeds of the gold sales in Swiss francs. The average selling price of USD 350/oz was 17 dollars higher than the average London fixing of the selling period. Of course, with today's prices around 600 USD/oz, you might think that we revisit our sales program with mixed feelings. As a matter of fact, price forecasts, which are inevitably subject to great uncertainty, did not feature prominently in the SNB's decision to sell gold. The timing of the gold sales was largely influenced by factors that the SNB did not fully control. Once we were allowed to sell, we started our program within the window of opportunity that had been negotiated with other central banks under the first Washington agreement.

Today, the SNB is no longer in the spotlight with regard to its gold policy. This makes my task today easier than President Roth's seven years ago. I have no newsworthy information to present to you regarding our gold policy. Instead, I will briefly reflect on six commonly held arguments related to commodities and, more specifically, to gold. The point of considering these arguments is not to either reject or confirm them definitely but rather to illustrate the likely speculative nature of long-term gold price forecasts. Since it was freed from central bank intervention, the gold market has been quite volatile. Historical evidence as well as analytical considerations suggest that price volatility will likely remain an important feature of the gold market.

First argument: gold is a commodity like any other

Since the collapse of the Bretton Woods System, gold has lost its role as an anchor for the international monetary system. Does that mean that it has become a commodity like any other? Before trying to analyse fundamental differences or similarities between gold and other commodities, lets look at what prices tell us: At first sight, gold and other commodity price cycles indeed look similar: the

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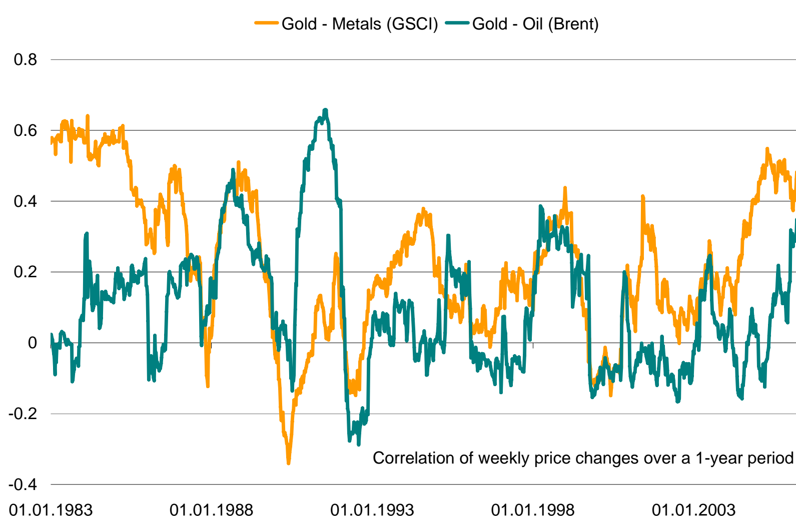
[1] For a detailed overview of SNB's sales program, see Hildebrand (2005), *SNB Gold Sales - Lessons and Experiences*, Institute for International Economics, Washington.

boom in the gold market since 1999 clearly has parallels in other commodities as well. Oil prices have increased sevenfold since 1999; industrial metals have increased threefold since 2001. Similarly, the extraordinary gold bull market at the end of the seventies occurred in the context of rising oil and commodity prices. This parallelism, however, is not perfect. The average correlation between weekly price changes of gold and oil throughout the last 20 years is a mere 0.1. For metals, the correlation with gold is slightly higher but remains below 0.2. Both correlations have varied heavily within the period; currently, they are clearly on the high side (Graph 1).

Graph 1: Correlation between gold, metals and oil prices



Despite similarities in price movements, the gold market has a number of distinct features relative to other commodity markets. Arguably, the most important distinction is the fact that the ratio of available supply to annual production is much higher for gold than for other commodities. A significant proportion of the estimated 160,000 tonnes of all gold worldwide available in the form of jewellery, bars, coins, etc. (sixty times the annual mine production) could be brought to market at relatively low cost. Thus, in contrast to other commodities, gold prices are not only dependent on the current mine production and processing demand but are also influenced to a great extent by the supply and demand behaviour of existing and potential owners of gold. In other words, the investment motive is a much more important driver in the gold market than in the market for other commodities. Of course, mining and processing demand have an important role in the long term, but the medium term price equilibrium depends heavily on the investment or disinvestment decisions of the private and public sectors.

Second argument: commodity supply cannot catch up with demand

A common argument in commodity markets relies on a kind of Malthusian logic: due to limited supply, prices must rise in the long run in order to match increasing demand. This argument has been invoked for centuries. However, secular trends show the contrary: in almost all commodity markets, prices have decreased relative to other goods and services. This secular relative price decline does in no way imply that bottlenecks in production or increased demand cannot trigger a commodity price cycle. These cycles are often caused by the delayed reaction of supply to an increase in demand, which tends to push up prices temporarily. But in due time, higher prices tend to trigger new mining investments and foster technological progress.

This raises the question of whether we are currently witnessing a commoditity cycle like any other or whether things might be different this time? On the demand side, there can be little doubt that the increased demand caused by the integration of China and India in the world economy is a once in a century historical event. On the supply side, there has been a significant increase in exploration

investment since 2002.[2] It remains to be seen whether the increased supply will be sufficient to bring prices down significantly. The depletion of easy-to-mine resources has contributed to a significant rise in extraction costs. Other factors might also push in the same direction: for instance, it is possible that the internalisation of external mining costs, previously born by society as a whole (i.e. through the degradation of the natural environment), might contribute to commodity prices remaining at elevated levels.

With regard to gold, on the other hand, I am doubtful that the main source of uncertainty is related to surprises in future mining supply or fabrication demand. As I mentioned before, absent new vast discoveries, investment demand will arguably continue to dominate future gold prices.

Third argument: today's commodity investment boom is structural and will be long-lasting

Let's turn our focus to investment demand. In recent years, institutional and private investors appear to have rediscovered commodities as an asset class. According to some market estimates, investment in commodities has surged tenfold since 2003 and amounted to USD 120bn in May 2006. Many market analysts see this increase as the beginning of a new trend: their argument goes roughly as follows: if all pension funds had only 3% of their assets invested in commodities, this would represent a total investment of more than USD 500bn.[3]

The gold market has also benefited from a surge in investment demand. According to market specialists, net investment exceeded 700 tonnes in 2005. Exchange-traded funds (ETFs) have become particularly popular because they give investors the opportunity to make flexible and liquid investments in gold, even for small volumes. At the end of 2003, gold ETF investments accounted for less than 20 tonnes. Today, they likely exceed 500 tonnes.

Does the risk/return payoff of commodities justify this new interest? Empirical studies have shown that the inclusion of commodities as an asset class improves the efficient frontier of a portfolio. Nonetheless, we all know that returns and correlations can change. With respect to correlations, there is arguably no compelling reason why low correlations between commodities and bonds or equities should change significantly going forward. The case for diversification with regard to investing in commodities may therefore well remain intact. With regard to returns, however, things appear more complicated, particularly if we base our analysis on the return of commodity futures indices. In the past, most commodity markets have been in backwardation: futures prices were lower than the spot price. This was beneficial to investors buying commodity futures, because they could profit from a so-called roll-yield. This yield can be interpreted as a risk premium priced into the futures contract to compensate the holder for bearing the commodity price risk. However, if the number of investors ready to bear this risk increases significantly, the risk premium could disappear or even turn negative. In fact, for some time now, the near-term structure of many commodity prices has experienced a change from backwardation to contango. It seems to me, there may well be a connection between this change from backwardation to contango and the growing trend to invest in commodity futures.

Contrary to other commodities, gold has typically been in contango. The reason is that there is plenty of gold around and plenty of market participant - including central banks - willing to lend it. As a consequence, gold lease rates are usually lower than USD interest rates and gold futures prices higher than spot prices. The roll yield is thus negative, which is one of the reasons why investment in gold futures did not generate the same returns as investments in broad commodity future price indices. So what return should we expect from investing in gold? History shows that gold has been able to keep its value in real terms, but compared to bonds or equities, no real return has been realized (Graph 2).

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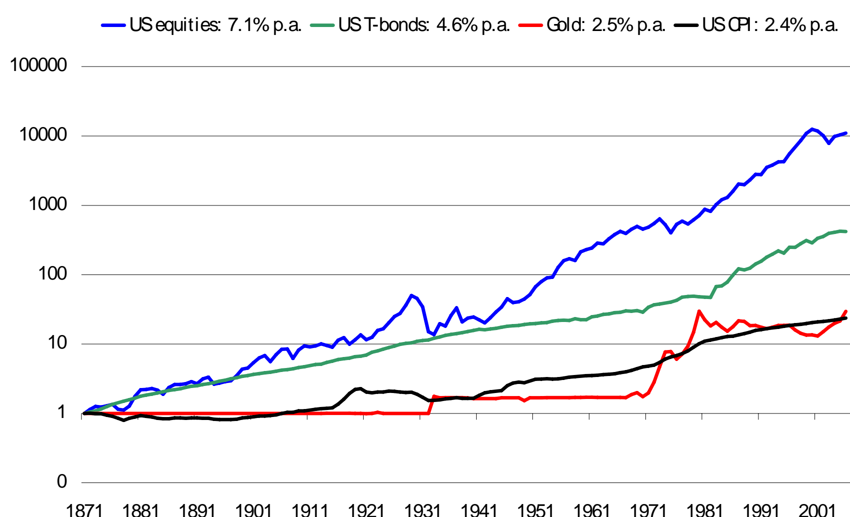
[2] For instance, Metals Economics Group (2005) estimates that expenditures for commercial nonferrous metals exploration increased from a 12-year low of USD 1.9bn in 2002 to USD 5.1bn in 2005, a level just slightly lower than in 1997, when expenditures were at their highest level.

[3] Source: Watson Wyatt in GFMS Gold Survey (2006).

Graph 2: Cumulative returns on gold, bonds and equities in USD since 1871



Fourth argument: gold mine hedging is "passé"

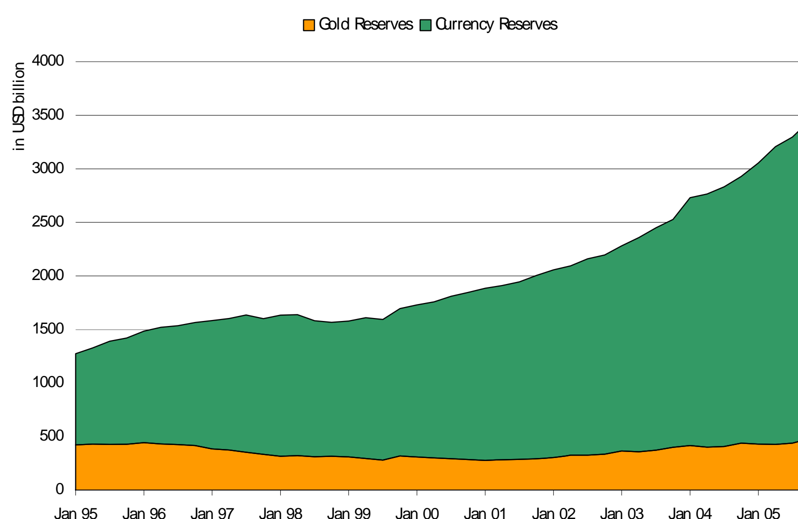
As you know, in the second half of the 1990s, gold mines increasingly sold their future production on a forward basis. In doing so, they pushed up gold supplies by more than 10% per year, thus reinforcing the already negative price trend. As from 2001, mining companies increasingly abandoned this type of price hedging, which amounted to a de facto reduction in the supply of gold and thus contributed to rising prices.

This raises the question of what constitutes an optimal hedging policy to maximize shareholder value? One of the reasons gold mine companies typically give for reducing their hedge book is that shareholders want to incur a gold price risk when investing in mines. While there is arguably some logic to this argument, investors clearly have other alternatives if they seek exposure to the price of gold. There is no doubt that no hedging at all would have been better from a shareholder's perspective than the kind of pro-cyclical policy that was followed in the past. Nonetheless, it seems to me, we cannot rule out that the gold mining industry will start increasing its hedging activities again at some point in the future.

Fifth argument: central banks will adopt a homogenous attitude towards gold.

At the end of 2005, central banks had officially declared reserves of around USD 3,500bn. Of this amount, around 15% was invested in gold (Graph 3). The proportion of gold varies considerably from one country to another. For instance, it amounted to more than 70% for the United States, 50% for the Eurozone, 40% for Switzerland, 4% for India, 2% for Japan but less than one percent for Brazil, China, Hong Kong, Korea or Malaysia. These variations have always been a source of market rumours. At the end of the nineties, the prevailing question was: what if European central banks would reduce their gold holdings to 10% of their reserves? Now, the question is: what if Asian central banks would increase their holdings to 10% of their reserves? I doubt that in the foreseeable future, these national discrepancies related to gold reserves will diminish significantly, let alone disappear. Countries have different geopolitical situations, different historical backgrounds, different levels of development and different functions for their official reserves. These differences give rise to different priorities with regard to the role of gold reserves.

Graph 3: Evolution of World Official Reserves



Sixth argument: increasing living standards will boost private gold demand in emerging Asia

My comments on this last argument will be brief. As often when looking at economic issues, there are substitution and income effects at work. On the one hand, prosperous Asian workers will be able to save and consume more, which should be reflected by an increased demand for gold. On the other hand, as financial markets and banking systems become more developed and more secure in today's emerging economies, the palette of alternative saving vehicles will increase and we should expect the relative proportion of wealth invested in gold to decrease. In other words, we might expect the income effect to be strong at the beginning before receding and giving way to the substitution effect.

Conclusions

Despite the demonetisation of gold, the yellow metal continues to have a special significance for central banks. Unlike currencies, the value of gold does not depend on a national sovereign. Moreover, payment transactions with gold are fully under a central bank's control. These are two important reasons why gold, more than any other type of investment, serves to ensure the capacity to act in extreme crisis situations. From an investment viewpoint, the price of gold often moves in the opposite direction to other financial assets, in particular to the US dollar. The price for this 'insurance function' is reflected in the fact that gold is less profitable in the long term than other financial assets.

It is not surprising that Switzerland, a small open developed country with a highly integrated financial sector and an ageing but relatively wealthy population, continues to invest a significant proportion of its reserves in gold. At present, the SNB holds 1,290 tonnes of gold or roughly 30% of its assets. Price fluctuations in both directions are to be expected and may be strong and sustained. As was the case in the past, such price fluctuations will modify the proportion of gold on our balance sheet from year to year. These short-term fluctuations should not give rise to great concern. Experience has shown that extreme movements in markets tend to level out in the long run.