

Working Paper

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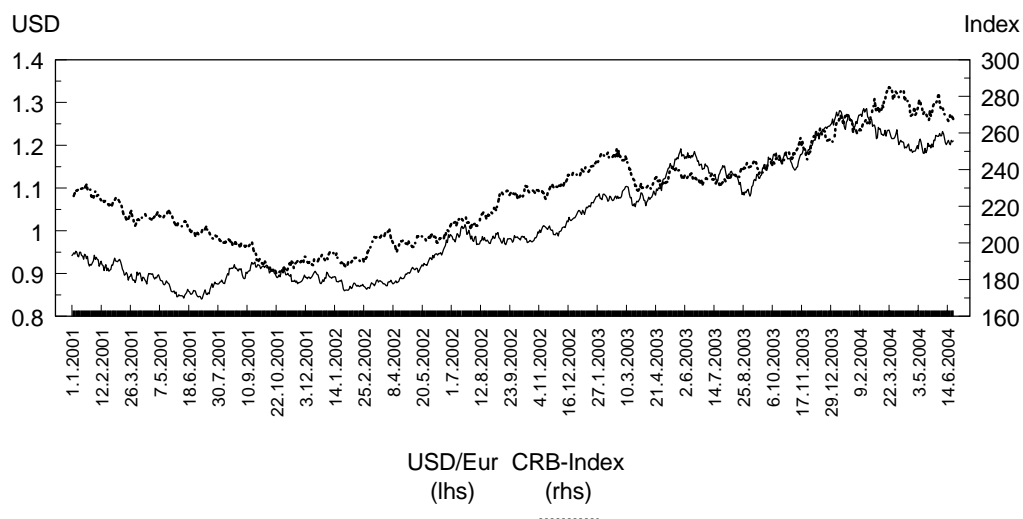
Struggle on the commodity market: structure versus cycle

Predicted corrections have taken place

The expected price correction on commodity markets (cf "Economy and Markets", March 2004) has meanwhile come about. Triggered off primarily by a technically-induced appreciation of the US currency, sharp falls were seen across the entire market. The Reuters/Commodity Research Bureau Index (CRB Index) registered peak losses between the end of March and mid-May of some 6 % with a number of base metals tumbling significantly (nickel -27 %, copper -16 %, aluminum -13 %). In the meantime, though, most commodities have already bounced back. Crude oil was an exception in this regard, temporarily inching its way up to the record mark of USD 40 (basis North Sea Brent) only to ease down again noticeably of late.

A major struggle is currently raging on the commodity market. On the one hand, cyclically-oriented investors are speculating that international interest rates will steadily head up with an attendant pickup in the US dollar and correspondingly weak commodity markets. These contrast with the market operators who believe that the commodity sector has entered a lasting boom sparked off by the structural problems in the USA. However, both assessments are entirely complementary. The cyclical approach views the market from a short-term perspective, while the approach that focuses on the structural problems in the USA is more concerned with the long-term implications for the commodity sector.

USD/Eur and CRB-Index*



*Reuters/Commodity Research Bureau-Index.

US dollar still prime determinant of commodity prices

The close parallel trend between commodity prices (example CRB Index) and the USD/EUR exchange rate highlights the fact that the US dollar is still the prime determinant of commodity prices. Although between mid-February 2004 and the end of March commodity prices managed to temporarily divorce themselves from the movement of the US currency, the underlying correlation was restored again afterwards. The reason for the temporary de-coupling lies in the energy sector which firmed up markedly from the beginning of February until early June on the back of crude oil. Energy prices shored up the overall index until the end of March before the bulk of commodity prices joined in inverse to the performance of the dollar, i.e. the euro weakness. **The market attributed** the already **technically overdue correction of the euro** within the long-term upward trend **to fears of interest rate increases** which were reflected early in long-term US interest rates in anticipation of Fed rate hikes. There was nothing particularly surprising about the uptick in interest rates given that an **increase in US consumer prices had been foreseeable early on owing to base effects** among the energy-dependent components. The correlation between annual percentage changes in crude oil prices and the consumer price index in the USA has been relatively close since the US dollar's weakness of recent years (**see Chart 2**). After the military operations in Iraq, crude oil prices temporarily tumbled from the end of February until early May 2003. This has now fed through in the form of a base effect and is causing consumer prices to accelerate. US bond markets responded to this development with corresponding price losses (long-term US Treasury yields up by as much as 1 percentage point). A further argument given was strong US growth, fueling fears that price increases could be passed on to consumers and signaling a rising interest rate cycle. Currency markets interpreted the change in the interest rate differential to the

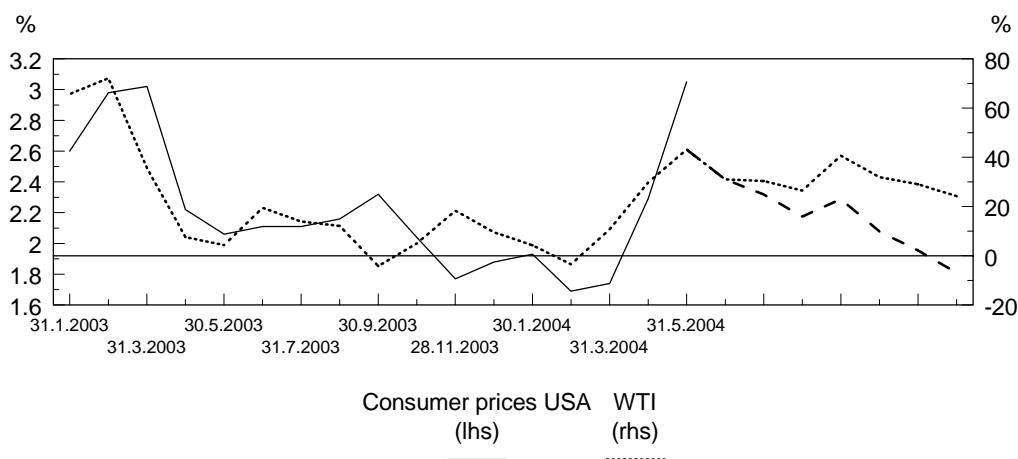
euro area as a welcome argument for an overdue strengthening of the US currency, resulting in USD gains against the euro and corresponding losses on commodity markets.

Tougher times for cyclicals

Supporters of the cyclical theory could well be in for more difficult times. Whether the US economy is strong enough to create lasting pricing power and lead to general price increases is unclear at this juncture. When the described base effect winds down in the foreseeable future, the close correlation between energy prices and consumer price inflation suggests, if anything, that things will **ease on the inflation front**. Assuming a constant oil price of some USD 40, the simulation in **Chart 2** reveals that there would not be any other factors putting upward pressure on consumer prices in the USA until year-end. Should the recent bout of weakness in the energy sector continue, as fundamental factors (see oil market analysis below) would indeed appear to suggest, and crude oil prices drop back to USD 30 by the end of 2004, inflation in the USA is actually likely to ease.

Chart 2

Consumer prices (USA) und oil price (USD-basis)*
% change on year earlier**



*WTI
 **WTI simulation (2. half-year)=constant= USD 40 (upper line).
 **WTI simulation (2. half-year)=linear fall to USD 30 (lower line).

Further interest-rate-induced US strength?

A more moderate inflation development should also help keep the lid on interest rates.

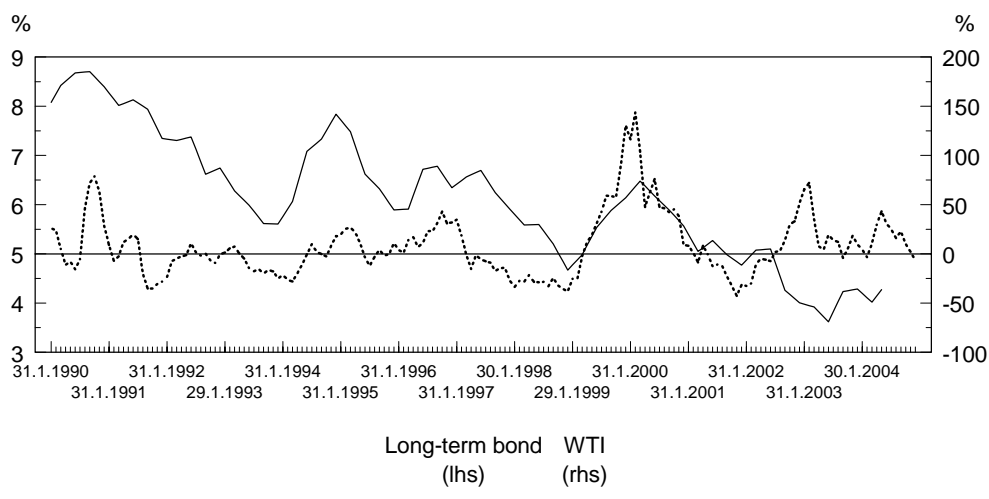
Chart 3 depicts the correlation between the percentage change in crude oil prices and long-term interest rates in the USA. As already described in Chart 2, energy prices are a prime determinant of general inflation. Without the boom in commodity prices and energy prices in particular, US inflation would therefore have been lower in recent years. Not least for this reason, and to avoid the deflation risks seen in Japan, the Fed refrained in 2003 from tightening the monetary reins; but the price paid for this was a weaker US currency which for its part pushed commodity prices up further, as the chart illustrates. The Fed did not respond to the acceleration in inflation prompted by the commodity markets (in this case, the oil price) and kept short-term interest rates low. In spite of the

pickup in inflation, the first half of 2003 actually saw a drop in long-term interest rates which, after all, reflect market expectations. With a more aggressive interest-rate policy, the Fed would have bolstered its own currency at an early stage and helped curb commodity prices; but this would have been at the risk of throttling the domestic economy and precipitating a sharper correction on the US housing market, both with implications for the labor market; an unwelcome situation in the pre-election period. Energy prices at least would have been largely beyond the reach of the Federal Reserve since Fed interest-rate policy has no influence over the physical and non-physical supply situation on the **oil market**, particularly given that this market is **heavily influenced by the geopolitical situation**.

With the base effect dropping out of the inflation numbers and crude oil prices stabilizing or declining in coming months, the rise in interest rates should tend to be limited (see **Chart 3**). It would then be difficult to use the interest-rate factor as justification for a steadily strengthening US dollar. What is more, the currency market has most likely already priced in the trend towards rising interest rates. The massive structural imbalances in the USA, with the twin deficits in the public budget and the record US current account deficit of meanwhile USD 144.9bn in the first quarter 2004 (4th quarter 2003 revised USD 127bn), should return to the focus of the US currency assessment, resulting in a continuation of the long-term weakness.

Chart 3

Percentage change in oil price (WTI) on a year earlier and long-term government bond (USA)



*Simulation: Oil price for 2. half-year 2004 linear fall to USD 30.

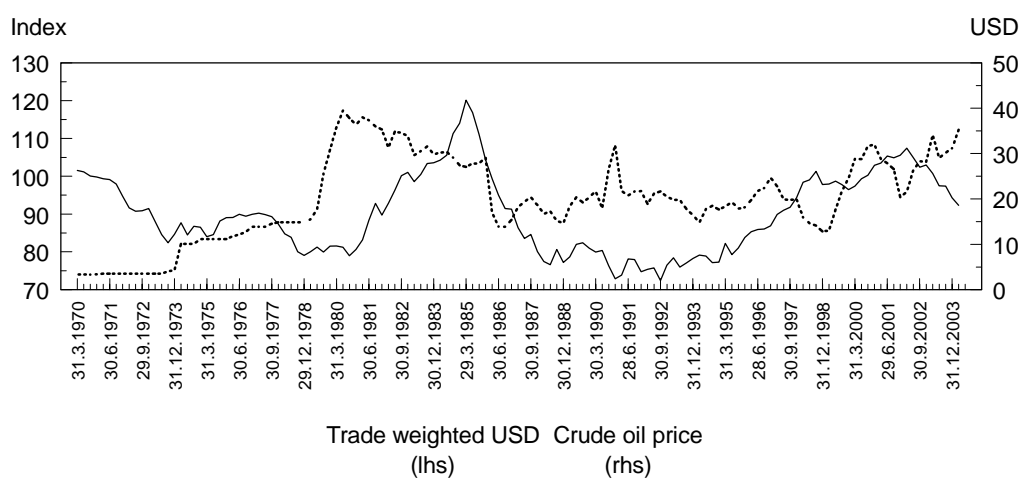
Is crude oil a factor buoying the USD?

According to popular opinion, especially among trading circles, the US dollar profits from rising oil prices due to the fact that shipments of crude oil are invoiced internationally in USD. Theoretically, the higher trading volume coupled with rising oil prices should boost demand for the US dollar and, by extension, push up the exchange rate. Apart from the fact that the oil countries also use their oil

revenues for goods imports from countries other than the USA, thus stoking up demand for the currency of these countries and leading after a time lag to a degree of neutralization in the "oil currency effect", **Chart 4** illustrates that the price of crude oil and the trade-weighted USD actually trend in opposing directions. Although the interaction on price formation on currency markets is not one-dimensional, the most likely explanation for the opposing trends in the oil price and the US currency is, among other things, the impact that oil price fluctuations have on the US trade balance. When oil prices are on the increase and the US economy is robust, higher US imports impair the US trade balance to a greater degree. A deterioration in the US trade balance in turn pushes the US dollar down. The reverse applies when oil prices fall. Hence, contrary to the expectations of many market players, the oil currency USD does not profit from its nimbus. Thus, a rising oil price does not necessarily bolster the exchange rate of the US dollar.

Chart 4

Crude oil price* and trade-weighted USD-Index**



*West Texas Intermediate (WTI).

**J.P. Morgan Nominal Narrow Effective Exchange Rate Index USD.

Forecast for commodity prices in 2004

Once again commodity prices are set to benefit from the expected prolonged weakness of the US currency. With US military expenditure at a persistently high level and the Fed's fears that it could still steer itself into deflationary territory by tightening the monetary reins too early and pouring too much cold water on the economy, the structural debate is likely to continue for some time, with commodity markets benefiting as a result. **For the time being, an end to the Fed's reflation policy does not seem to be on the cards.** New record highs could still be seen on the commodity market not least due to the expected ongoing weakness of the US dollar but also because commodity markets will also continue to benefit in USD terms from the buoyant global growth, at least in the second half of 2004. This is likely to remain the case even if growth were to slow somewhat in China. Chinese imports have of late had a major impact on certain sectors of the commodity market. We therefore still see the CRB index hitting 300 this year (currently 268).

Oil price doing its own thing

Crude oil has proved something of an exception among commodities this year to date, with its price development once again a source of surprise. In 2003, the great majority of analysts and market operators had expected prices to fall amid the general expectation of being able to profit from an abundant supply, replenished by additional Iraqi oil once military operations in Iraq were officially declared over. After all, Iraq with some 115 billion barrels still ranks second behind Saudi Arabia in the provable oil reserves league. With **no further explorations having taken place for three decades**, reserves are expected to be even higher. In the meantime, though, any hopes of stepping up output have been dashed by the desperate state of the neglected and outmoded oil installations. Following this false assessment of the actual supply situation, in June 2004 prices for North Sea Brent - after a steady rise – brushed previous record highs of USD 40 last seen back in 1980 amid the general euphoria for commodities prevailing at that time. The gloomy specter of a new oil crisis was already being conjured up.

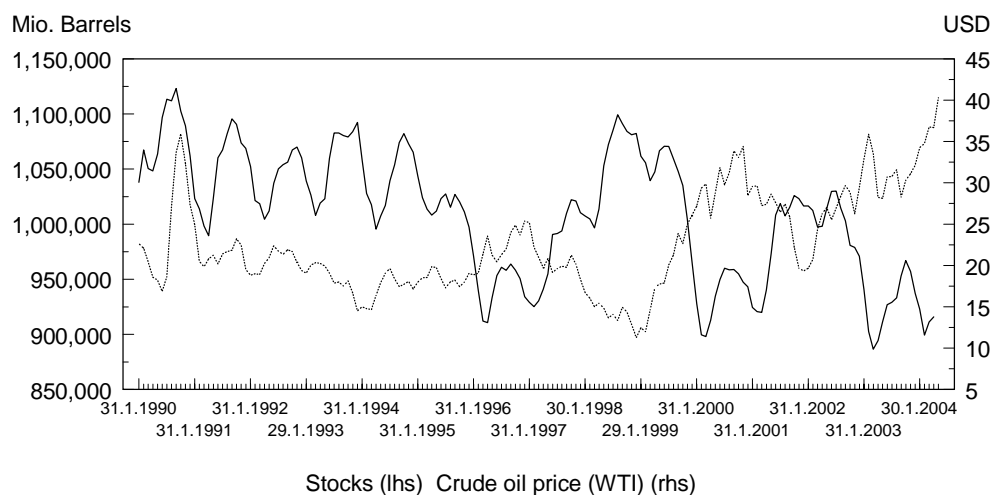
Incorrect assessments powering crude oil prices

The main factor behind the steady rise in oil prices was a tight physical overhang of global demand for crude oil exacerbated by fears over the future supply situation given a series of attacks in Iraq.

The supply situation in the USA was also viewed as critical and responsible for pushing up prices. Stocks of crude oil and oil products plummeted to the critical level of scarcely more than 900,000 mb/d. However, **Chart 5** shows that stocks are traditionally replenished when oil prices fall and decline when prices rise.

Chart 5

Stocks of crude oil products in the USA

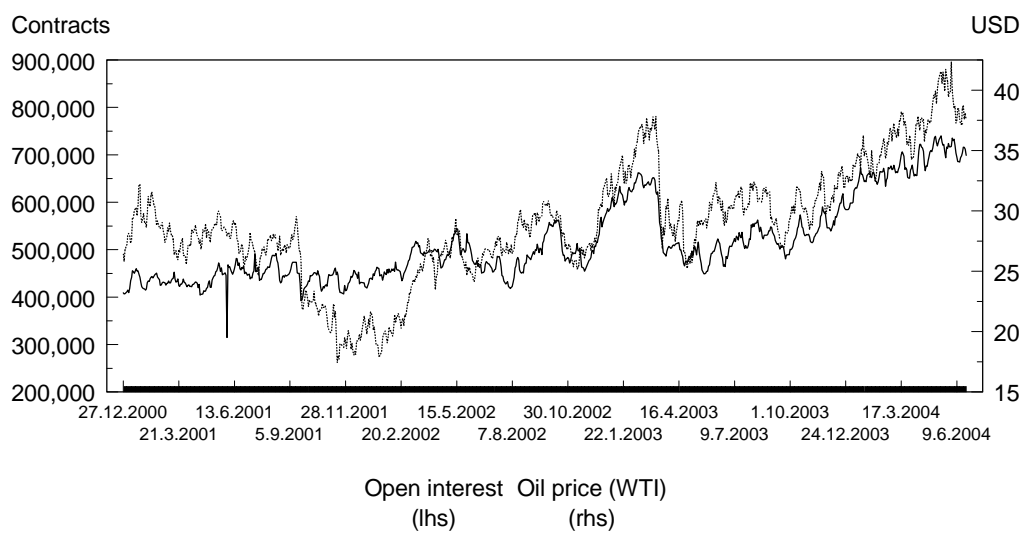


Source: Energy Information Administration (EIA).

However, panic-like liquidation of short positions by disappointed bears on the futures market, who had been betting on falling prices since 2003, contributed decisively to the boom. This **short covering has been fueling temporary price surges since the beginning of 2004**. The effect is evidenced in the open interest figure which has increased only marginally since the beginning of 2004, although crude oil prices have risen strongly (**Chart 6**). Usually, a sustained price upswing is accompanied by a marked increase in the number of new contracts. In the 2004 upswing, however, new bull positions were offset by a growing number of closures, resulting in a disproportionately low increase in the overall number of contracts - a weak sign for the market technically.

Chart 6

Oil price (WTI) and open interest on the NYMEX



With many market players having quit the market in frustration, prices for black gold have retreated noticeably in the meantime. Even the threat of strikes in Norway, the third largest oil exporter at some 3 mb/d, failed to halt the slide. The announcement made prior to this by OPEC, which accounts for a market share in global crude oil supplies of nearly 38 %, to continue supplying the market abundantly with crude oil in future had also contributed to this. Officially, the extraction quota is to be raised already from July 2004 to 25.5 mb/d and in August by a further 0.5 mb/d to 26 mb/d. This announcement had a verbal impact although the organization had already been producing more than 26 mb/d, i.e. way above the limit of 23.5 mb/d. In addition, Saudi Arabia declared its intention to raise its current output from 9.1 mb/d (June 2004) to as much as 10.5 mb/d in the event of bottlenecks. However, the marked drop in oil prices meanwhile evident is likely to give OPEC cause for reflection at its July 21 conference in Vienna.

Current physical supply situation of crude oil

Assuming OPEC up output as announced, a glance at the current supply of physical oil meanwhile **shows supply and demand more or less in balance**. This is also based on the assumption that Iraq will be able to deliver more than 2 mb/d in the future.

Growth in demand for oil stems almost exclusively from eastern Asia where the share in total demand is expected to climb to around 17.7 % in 2004 from 17 % in 2003. China accounts for the lion's share of this increase. Of late, the country's emerging economy is frequently being held responsible for price upheavals on the commodity markets, including the oil market. While **China** managed to ratchet up its share in global crude oil demand in the last 10 years by 3 percentage points, the country does not play any decisive role in price formation and the **expected slowdown in the country's overheated economy is unlikely to have any impact on international oil prices**.

With physical supply and demand practically in balance, the speculation on the futures markets will again essentially decide the future trend. Provided the current situation in the crisis regions does not escalate, which if it did would again attract speculative capital to the futures market, the oil price could move in a range of USD 30- 36 up to the end of this year. For this reason we are correcting our forecast from March 2004 and are revising up the predicted average price for this year from USD 31 to USD 33.

Precious metals market in the shadow of the US dollar

The particular arguments used in the past for explaining the boom in precious metals have been somewhat overshadowed by cyclical aspects. For example, sentiment was dampened recently by fears that the Fed might raise interest rates and that long-term interest rates might spiral up. Given the level reached, there might also have been some cases of hedging activity by the producers. On the other hand, though, precious metal prices and the USD have essentially been moving in opposing directions. However, the market continues to view the structural problems of the US currency as a long-term bull argument, with the expected ongoing USD weakness likely to boost precious metals again.

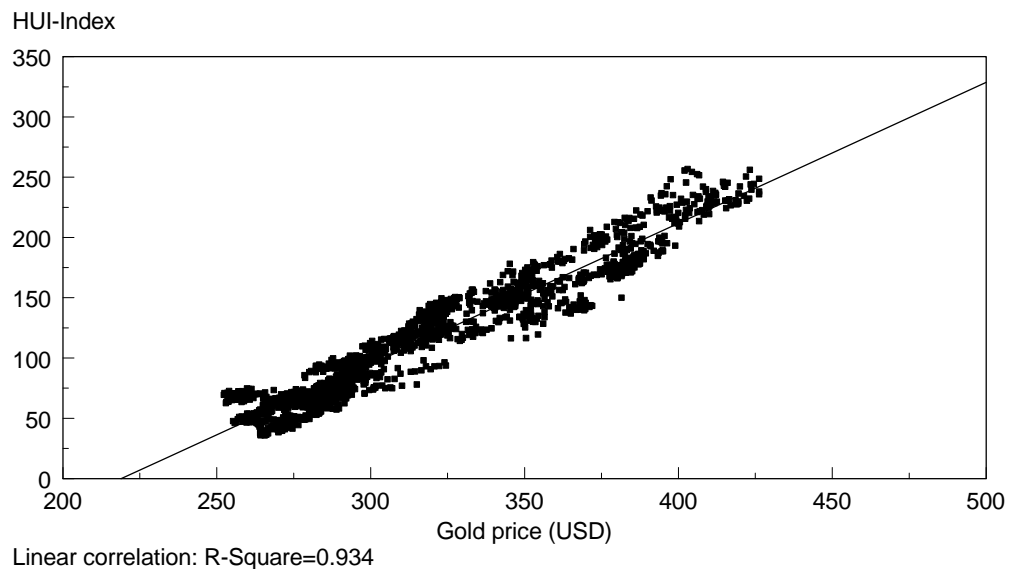
After all, the price of silver climbed on the traditionally narrow and technically dominated market within the space of a year until the beginning of April 2004 in USD terms by more than 80 %, only to have surrendered again by mid-May more than half the ground it had gained the last time commodity prices corrected. Mines, in particular, used the meanwhile high price level to make forward sales of future production, particularly as silver is automatically obtained as a by-product when extraction of copper, zinc and lead ore increases. As a rule, producers of these base metals in any case market silver immediately, as it is not part of standard production. At the moment, the price is only likely to pick up again in tandem with rising gold prices.

The gold price has held up far better. With prices peaking at just below USD 430 in January 2004 and again in early April, prices dropped back dollar-induced to some USD 370, only to rebound again above the USD 400 mark. There were hardly any signs of precious metal-specific factors responsible for this.

In the past, an increase in gold mine prices has generally preceded an increase in the price of gold. Chart 7 depicts the correlation in value terms between the gold price and the HUI Gold BUGS Index that is calculated on the American Stock Exchange (AMEX) and tracks the price of mine stocks that either do not hedge their production on the market or hedge it to only a limited degree. A close correlation (R-Square = 0.934) exists between the trend in the gold mine index and the gold price. At a gold price of USD 400, the gold mine index should lie theoretically at some 210. But the HUI Index currently stands oversold at some 185. This indicates that the gold mine market overreacted during the last correction on the commodity market. Technically, it will be interesting to note on the one hand whether the mine stocks will again anticipate a renewed upturn in the gold price and on the other hand whether the gold price will again manage to firm up in the summer months in line with its traditional seasonal price pattern.

Chart 7

Gold price (USD) und HUI-Index



Overall we expect the meanwhile more than three year long boom on the precious metals markets to continue, fueled by renewed USD weakness.

It is difficult to make short-term forecasts for the highly-volatile silver market given the relative ease with which this narrow market can be manipulated. The price in 2004 could average USD 6.50 with the peak of over USD 8 occasionally being tested again.

We are sticking to our forecast of an annual average gold price for 2004 of USD 420, with prices possibly peaking at as much as USD 480 if the geopolitical situation were to escalate.