

Gold Investment Digest

Fourth quarter and full year 2010

January 2011

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Overview

The gold price rose for the tenth consecutive year driven by a recovery in key sectors of demand and continued global economic uncertainty. Not only was gold's performance strong, but its volatility remained low, providing a foundation for a well diversified portfolio.

Price trends

The price of gold rose 29% in 2010 to US\$1,405.50/oz by December-end, on the London PM fix. Gold returns were higher in euro and pound sterling terms, as ripples from the European debt crisis continued to be felt. Gold outperformed versus equities, treasuries and commodity indices while gold's price volatility fell to 16% during 2010, in line with its long-term average.

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Investment trends

Investors bought 361 tonnes of gold in 2010 via ETFs, bringing total holdings to a new high of 2,167 tonnes, worth US\$98 billion. In the futures market, COMEX gold net long positions remained robust. Buy-side interest for OTC products in gold increased considerably during Q4 and full year 2010. Similarly, investment demand in bars and coins in North America, Europe, China, India and the Middle East remains high. [Read more...](#)

Market and economic influences

Gold benefitted from mixed economic news around the world as investors looked for alternatives to balance risk and performance in their portfolios. First, concerns over sovereign debt and expansions of quantitative easing pushed investors to hedge currency risks and find strategies to protect against tail risk. Second, strong economic growth in emerging markets has led to robust commodity demand as well as higher inflation. [Read more...](#)

Gold market trends

Preliminary reports suggest that key gold markets recovered in 2010 and that India is poised to have a strong rebound in 2010. In China, the gold market appears to have maintained its strong momentum. Gold use in technology continued to grow. European central bank sales remained negligible while the IMF completed its gold sales program. Additionally, emerging market central banks continue to increase their gold reserves. [Read more...](#)

Contents

Price trends	02
Investment trends	06
Market and economic influences	12
Gold market trends	18
Key data	24

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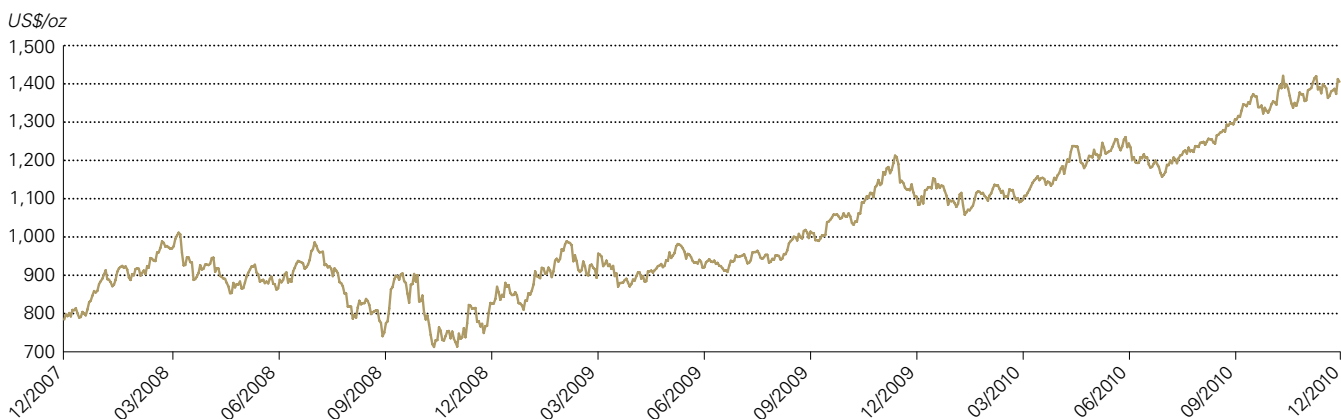
Price trends

The price of gold rose for the tenth consecutive year in 2010, exhibiting a particularly strong performance during the second and fourth quarters of the year. This was partly due to investment activity as well as a recovery in sectors such as jewellery and technology. By 30 December, it had reached US\$1,405.50/oz, on the London PM fix, a 29.2% rise from year-earlier levels. Similarly, average prices during the year rose to US\$1,224.52/oz from US\$972.35/oz in 2009 (Chart 1).

During 2010, the price of gold rose to record levels on several occasions, trading as high as US\$1,420.00/oz on 7 December, on the London PM fix. Gold prices increased by 2.6%, 11.5%, 5.1% and 7.5% on Q1, Q2, Q3 and Q4 2010 respectively, on a quarter-on-quarter basis. The average gold price increased to US\$1,224.52/oz during 2010 from US\$972.32/oz the previous year. While the gold price has seen a modest pull back from its 2010 highs toward year-end and into January 2011, the move is by no means unprecedented or unusual. To put these movements into perspective, the price of gold fell by 3.7% between 7 December 2010, when gold reached its 2010 high on the London PM fix, and 14 January 2011, at the time of writing. This represents considerably less than a 1-standard deviation move for a given month, for which the average volatility has been 4.9% over the past 10 years.

Gold's long-term supply and demand dynamics and several macro-economic factors ensured gold remained a sought-after asset. First, concerns continued to be felt over the health of economic growth in developed countries, especially among European nations on the back of the sovereign debt crisis and possible contagions to other regions. As such, European investors have turned to gold as a hedge against currency risks. Second, extensions and expansions of quantitative easing measures by central banks in the US, UK and Japan continued to make gold an attractive investment. Moreover, pressure on the US dollar against various currencies coupled with higher inflation expectations in many countries, including India and China, pushed the price of gold up. Third, official sector activity continued to be supportive of the gold market as sales by European central banks remained negligible and the

Chart 1: Gold price (US\$/oz), London PM fix



Source: The London Bullion Market Association

IMF concluded its limited gold sales program, while in several emerging markets central banks continued to increase their gold reserves. Fourth, while data for Q4 2010 is still pending, jewellery consumption moved at a healthy pace during the first three quarters of the year. India, for example, is poised to reach tonnage levels seen prior to the global financial crisis. Similarly, Chinese consumption continued to grow at a considerable rate. Moreover, investment activity in those regions, driven partly by innovative new investment vehicles offering improved access to the gold market, continued to expand. Finally, gold usage in electronics and other technological applications remained a steady source of demand.

Developed markets

The price of gold reached new highs in most developed market currencies during 2010, the notable exception being the Australian dollar as shown in Table 1. However, gold's performance was the strongest in US dollar, euro and pound sterling terms during the year in general and Q4 2010 in particular. As the European debt crisis continued to unfold, investors in Europe used gold as a currency hedge. Similarly, a weak US labour market and monetary policies implemented by the Federal Reserve made gold an asset of choice for many investors, locally and externally. For example, during 2010, gold prices rose by 39.7%, 34.9% and 29.2% in euro, pound sterling, and US dollar terms respectively. On the other hand, currency appreciation in Switzerland, Japan, Australia and, to some extent, Canada made gold gains appear more modest, rising by about 15.0% in most cases. Moreover, as the Australian economy recovered strongly during 2010 and its currency appreciated against the US dollar, gold prices during 2010 did not surpass the record level of AU\$1,535.24/oz seen on 20 February 2009.

During 2010, markets in many developed countries experienced risk aversion and negative investor sentiment due to concerns about the prospects for weak economic growth. Consequently, while many financial assets exhibited a positive performance during the year, equities in the US and Europe showed only moderate gains. For example, the S&P 500 rose by 12.8% while MSCI World ex US Index (which is heavily weighted towards European equities) increased by 6.2%, in US dollar terms. Similarly, the performance of US Treasuries, as represented by the Barclays US Treasuries aggregate index was measured and rose only by 5.9% over the year. On the other hand, during 2010, the S&P Goldman Sachs Commodities Index (S&P GSCI) rose by 20.4%, as industrial demand started to improve in Germany and China. This was also evidenced by upward pressure on the price of oil which increased by 22.2% to US\$94.30/bbl by the end of December 2010 from US\$77.20/bbl the previous year.

On a risk-adjusted basis, gold had a stellar performance during 2010 relative to most assets that investors might hold in a portfolio (Chart 2). It considerably outperformed not only equity and commodity markets, but also assets such as US Treasuries which tend to have much lower volatilities. Beyond its strong price performance, gold's relatively low volatility and lack of correlation to many assets makes it an ideal candidate for portfolio diversification and risk management strategies.

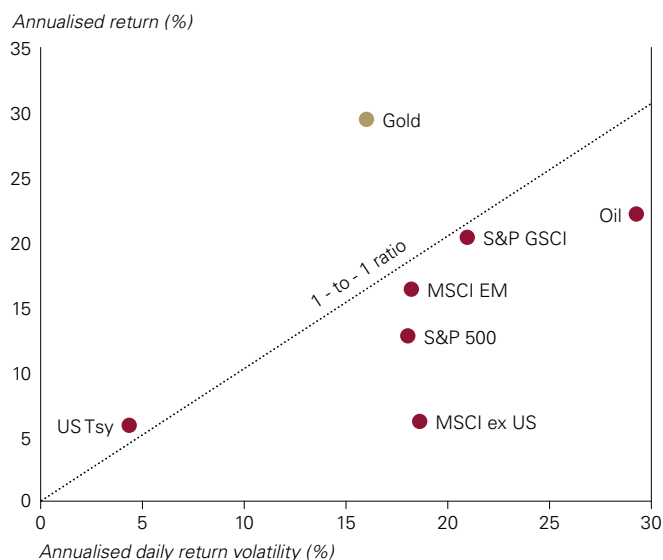
Table 1: Gold performance – developed markets

	Last price 31 Dec 2010	2010 max	2010 min	% QoQ	% YoY	% Vol*
US\$/oz	1,405.50	1,421.00	1,058.00	7.5	29.2	16.1
GBP/oz	913.02	913.02	671.91	9.9	34.9	16.8
EUR/oz	1,059.71	1,070.97	758.42	10.4	39.7	17.3
CHF/oz	1,316.81	1,432.15	1,127.03	2.7	16.8	15.6
JPY/oz	114,885.57	118,243.40	94,489.98	5.3	14.4	18.1
CAD/oz	1,407.33	1,432.50	1,116.61	4.6	22.7	17.0
AUD/oz	1,388.29	1,509.94	1,196.30	2.6	14.2	17.4

*Annualised volatility based on daily returns.

Source: London Bullion Market Association, Bloomberg, WGC

Chart 2: Annualised return versus annualised daily return volatility for various assets; 12/31/09–12/31/10



Note: For comparison purposes, gold performance was computed using 5pm EST prices.

Source: Bloomberg, Barclays Capital

Emerging markets

Many emerging market currencies gained ground on the US dollar during 2010, including the fourth quarter. Emerging market equities – as measured by the MSCI Emerging Market equity index – were up by 16.4% in US dollar terms, the best performance among international equity markets, largely driven by a healthier economic rebound in those economies.

While emerging equity markets experienced heavy capital inflows during the year, some developing economies' currencies fared better than others. On the one hand, gold prices rose higher in Turkish lira and Russian rouble terms, by 30.4% and 33.1% respectively, as a combination of extreme weather events and their trading links with Europe had a negative impact on those currencies versus the US dollar (Table 2).

On the other hand, as the South African rand and, more modestly, the Indian rupee and Chinese yuan appreciated against the US dollar, gold prices in these currencies were up by 16.6%, 23.9% and 25.0% respectively. Indeed, similar to the Australian dollar, gold prices in South African rand terms during 2010 did not breach the record high of R.10,011.00/oz set in early 2009. This was due, in part, to currency appreciation in these countries, which are large commodity producers, on the back of strong global commodity demand. In India, gold prices averaged Rs. 1,741.50/g (approx. Rs. 56,000.00/oz) during the year and Rs. 1,908.25/g (Rs. 61,350.00/oz) during Q4 2010. In China, a moderate 3.2% appreciation of the yuan versus the US dollar during the year meant that Chinese consumers did not see the gold price climb as much as their US counterparts. Overall, currency appreciation coupled with consistent economic growth in India and China, has sustained demand for gold not only in the jewellery sector, but also as an investment vehicle – especially as inflation creeps up.

Table 2: Gold performance – emerging markets

	Last price 31 Dec 2010	2010 max	2010 min	% QoQ	% YoY	% Vol*
RUB/oz	42,966.14	44,204.60	32,323.29	7.4	30.4	16.5
TRY/oz	2,184.43	2,196.72	1,609.55	15.4	33.1	17.2
CNY/oz	9,277.42	9,441.12	7,223.07	6.1	25.0	15.8
INR/oz	63,022.62	63,608.41	49,435.05	7.2	23.9	15.5
ZAR/oz	9,367.52	9,811.51	8,033.58	2.7	16.6	17.0

*Annualised volatility based on daily returns.

Source: LBMA, Bloomberg, WGC

Commodity performance

As sentiment improved among consumers and investors in developing economies and certain developed markets, demand for commodities rose during 2010. Consequently, commodity prices increased, in most cases posting double-digit returns during the year. Notably, low inventory levels and ever increasing demand from China, which contributes a 40% share of total demand for a number of industrial metals, had a positive effect on price. The fourth quarter was no exception and commodity prices followed a similar trend as was seen during the first three quarters of the year.

During 2010, palladium and silver were the best performing commodities, rising by an impressive 96.6% and 80.3% respectively. Other metals with a high degree of exposure to industrial demand rose significantly: tin, nickel and copper rose by 61.2%, 35.0%, and 32.6% respectively, from year-earlier levels. Only zinc dropped 5.3% during the year. Gains in precious metals such as gold (29.5%) and platinum (20.9%) were robust. Extreme periods of drought and flood, lower than expected crop yields and sustained high Chinese consumption kept agricultural commodities well bid, and the S&P Goldman Sachs Agricultural Index increased by 34.2%. Livestock prices, as measured by the S&P Goldman Sachs Livestock Index, rose by a modest 10.5% during the year. See Table 3.

Table 3: Commodities – returns and volatility

	% QoQ	% YoY	% Vol*
Gold London PM fix (US\$/oz)	7.5	29.2	16.1
Silver London fix (US\$/oz)	38.8	80.3	32.9
Palladium (US\$/oz)	41.7	96.6	35.6
Platinum (US\$/oz)	6.8	20.8	19.8
Aluminum (US\$/t)	6.3	11.4	26.3
Copper (US\$/t)	20.9	32.6	27.4
Lead (US\$/t)	14.4	8.0	38.2
Nickel (US\$/t)	6.7	35.0	35.9
Tin (US\$/t)	9.4	61.2	30.0
Zinc (US\$/t)	11.8	-5.3	35.6
Brent crude oil (US\$/bbl)	15.8	22.2	28.4
S&P GS Commodity Index	15.7	20.4	20.8
S&P GS Agriculture Index	25.0	34.2	24.1
S&P GS Livestock Index	2.6	10.5	12.7
DJ UBS Commodity Index	15.8	16.8	17.0
R/J CRB Commodity Index	16.1	17.6	16.8

*Annualised volatility based on daily returns.

Source: Bloomberg, WGC

1 The VIX Index is a popular measure of the implied volatility and is a weighted-average of prices for a range of options at different strike prices on the S&P 500 Index.

Price volatility

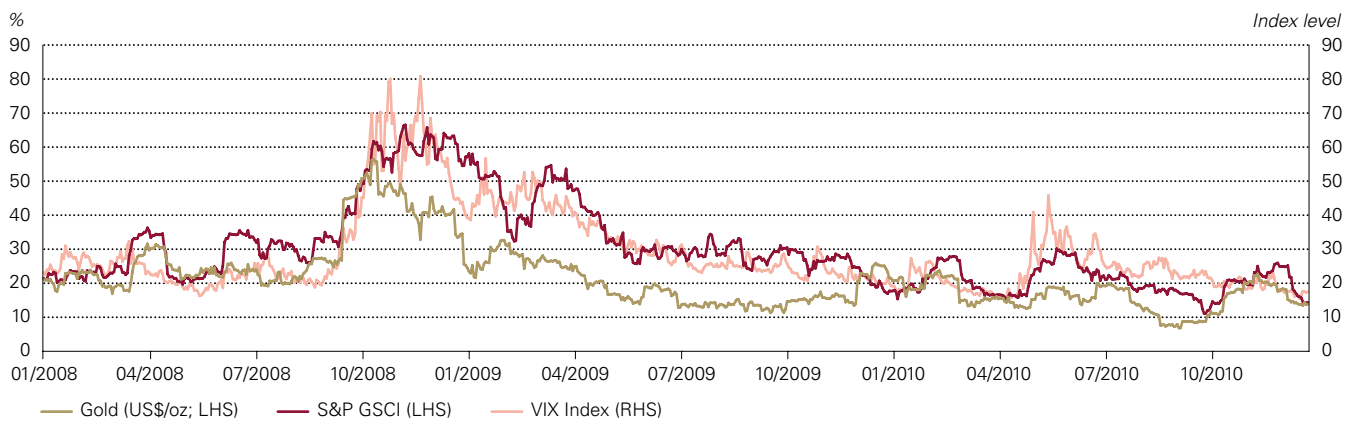
In general, equity market volatility fell during the second half of 2010, following the highly volatile period experienced during Q2 2010 at the height of the European sovereign debt crisis. However, throughout the year, market participants did react strongly to economic and financial news including developments centred on the European sovereign debt crisis, inflation in emerging markets, and concerns over global economic growth. As a consequence, equity market risk by the end of 2010, as measured by the VIX index,¹ remained higher than levels seen at the beginning of the year as seen in Chart 3.

For the gold market, a measured price appreciation translated into lower realised volatility during the year. The annualised gold volatility in 2010 was 16.1% compared to 21.4% the previous year, similar to its historical trend of 15.8% over the past 20 years. However, in line with other commodities, gold prices saw a moderate increase in volatility during Q4 2010 to 17.8%

from a multi-year low of 13.0% the previous quarter, on an annualised basis. In particular, volatility rose during October and November as the Federal Reserve announced its QE2 program and the state of finances in Ireland and its potential spill-over to other European nations made headlines. By the end of December, however, activity had normalised and realised one-month (22-day) volatility had moved down to 13.8%.

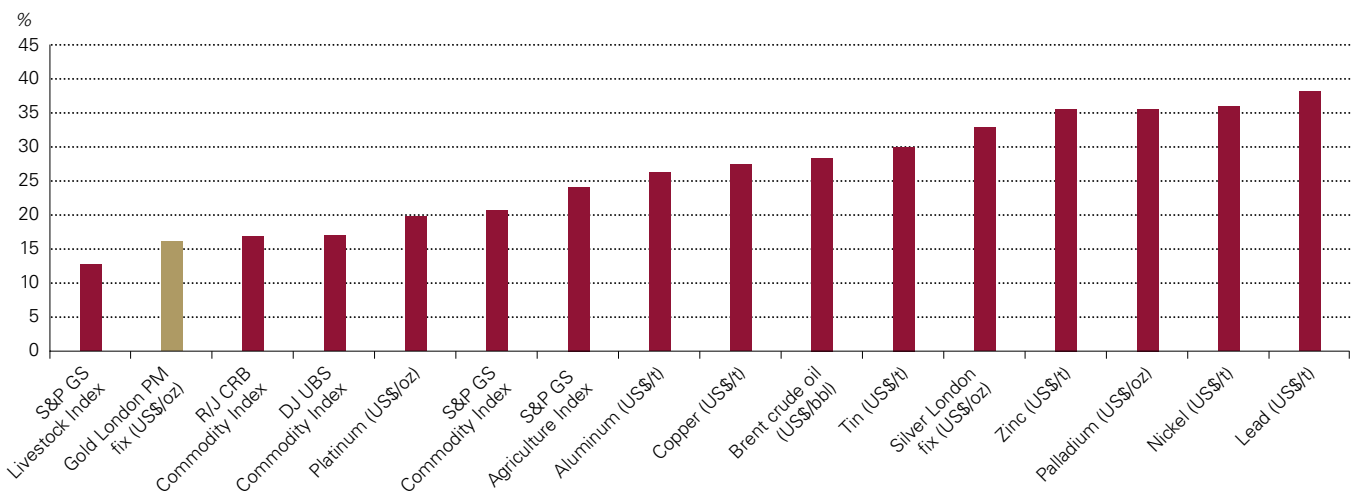
Gold is a unique asset among commodities for many reasons. In particular, gold remained, on average, one of the least volatile of the commodities that WGC monitors (Chart 4). Volatility on the S&P Goldman Sachs Commodity Index was 20.8% during the year, based on daily returns, compared to 16.1% for gold. Only livestock had lower realised volatility than gold at 12.7% during 2010. Zinc, palladium, nickel and lead were the most volatile commodities consistently during the year, all having average volatilities of more than 35.0%. Most other commodities had volatilities over 20.0%, including crude oil with an annualised volatility of 28.4%.

Chart 3: Gold and S&P GS Commodity Index annualised price volatility (22-day rolling, %) and the VIX Index (level)



Source: Bloomberg, WGC

Chart 4: Annualised daily volatility during 2010 for selected commodities



Source: IHS Global Insight, WGC

Investment trends

Investors continued to access the gold market in multiple ways during 2010. Exchange traded funds (ETFs) were a popular choice among investors and they continue to flourish in various parts of the world. Coin and bar purchases remained high while the over-the-counter (OTC) market was very active and has seen an increase in demand for index-based and other innovative investment vehicles.

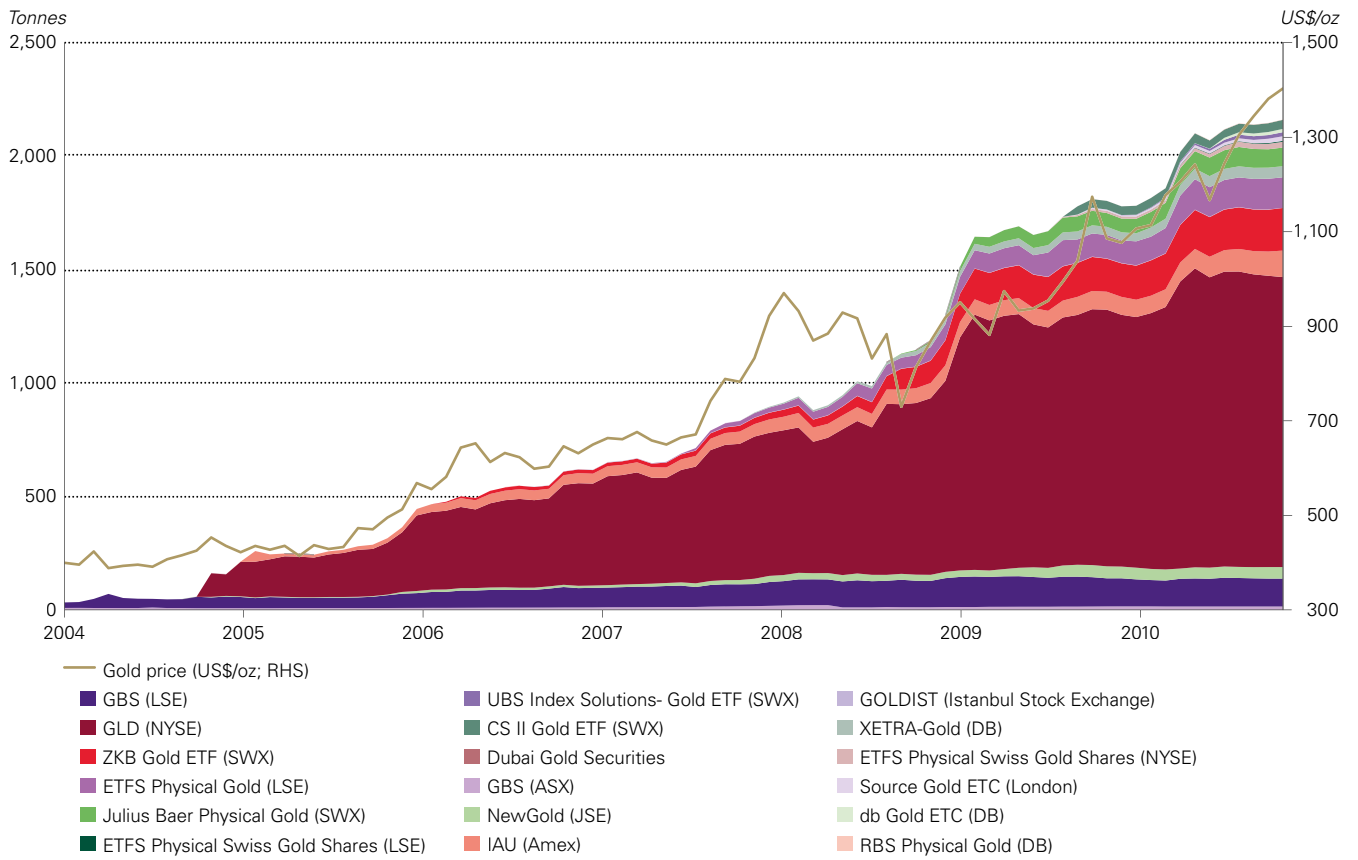
Exchange traded funds

Net inflows into gold via exchange traded funds (ETFs) and similar investment vehicles remained robust during 2010. The gold-backed ETFs that the World Gold Council (WGC) monitors saw net inflows of 361.0 tonnes during 2010, the second largest on record after the 617.0 tonnes of net inflows experienced during 2009 (Chart 5). This brought total holdings to a new high of 2,167.4 tonnes by 31 December 2010, worth US\$98 billion at the year-end gold price as investors saw in gold an invaluable asset for risk management and hedging purposes.

SPDR Gold Shares (GLD) listed on the NYSE and cross-listed in Mexico, Singapore, Tokyo and Hong Kong experienced

net inflows of 147.1 tonnes in 2010, especially driven by strong buying during Q2. This brought its total assets under management to 1,280.7 tonnes of gold by year-end. It was followed by ETFS Physical Gold Shares, the second largest gold-backed ETF, which added a collective 56.6 tonnes across its listings in the US, London and Switzerland, bringing its total holdings to 165.1 tonnes. Similarly, ZKB Gold ETF, listed in Switzerland, and iShares Gold Trust (IAU), listed on the NYSE, added 42.5 and 37.8 tonnes of gold respectively, during the year. Only JSE-listed New Gold ETF experienced outflows larger than 1 tonne of gold during the year. This illustrates that ETFs have become a convenient and cost-effective route to access gold for investors in multiple markets.

Chart 5: Gold ETF holdings in tonnes and the gold price (US\$/oz)



Note: Gold holdings are as reported by the ETF/ETC issuers. Where data is unavailable, holdings have been calculated using reported AUM numbers.
 Source: Respective ETF/ETC providers, Bloomberg, LBMA, WGC

ETF options

While the ETF market has seen an increase in option trading as of late, adding depth to the ETF market, the majority of the volume is still being transacted on GLD. In turn, GLD options activity remained high throughout 2010, particularly rising during Q4 2010, partly as levered plays as well as hedging vehicles. Average daily volume in 2010 was 208,130 contracts approaching the previous record volume of 214,000 contracts seen in Q4 2009. By the fourth quarter of 2010, GLD daily option volume had risen to 257,600 contracts, especially driven by activity observed by the end of October and beginning of November, as markets prepared for the size and timing of QE2. Indeed, call option volume rose more than put volume during the fourth quarter as investors were quantifying the negative impact on the US dollar following QE2 and its subsequent positive effect on gold. Trading volume subsided by year-end, and went back to the daily 2010 average of 208,000 contracts in December. In line with its historical performance, open interest on call options accounted for the majority of traded contracts, at an average of 2.4 million contracts during the year, compared to 1.7 million put contracts; however, open interest in put options experienced the largest overall gain, as investors likely positioned to lock in gains as the gold price trended higher throughout 2010.

Realised 60-day GLD volatility followed the same pattern as gold-price volatility, reaching an all-time low of 10.2% by the end of Q3 2010 and rising again to 18.1% by the end of Q4. The 3-month ATM (at-the-money) implied GLD volatility, on the other hand, traded in a range between 17.1% and 25.8% during 2010. The spread of 3-month implied volatility had almost disappeared by the end of December, suggesting that demand in the options market for protection against volatility in the gold market had normalised from Q3 2010 levels.

Gold futures

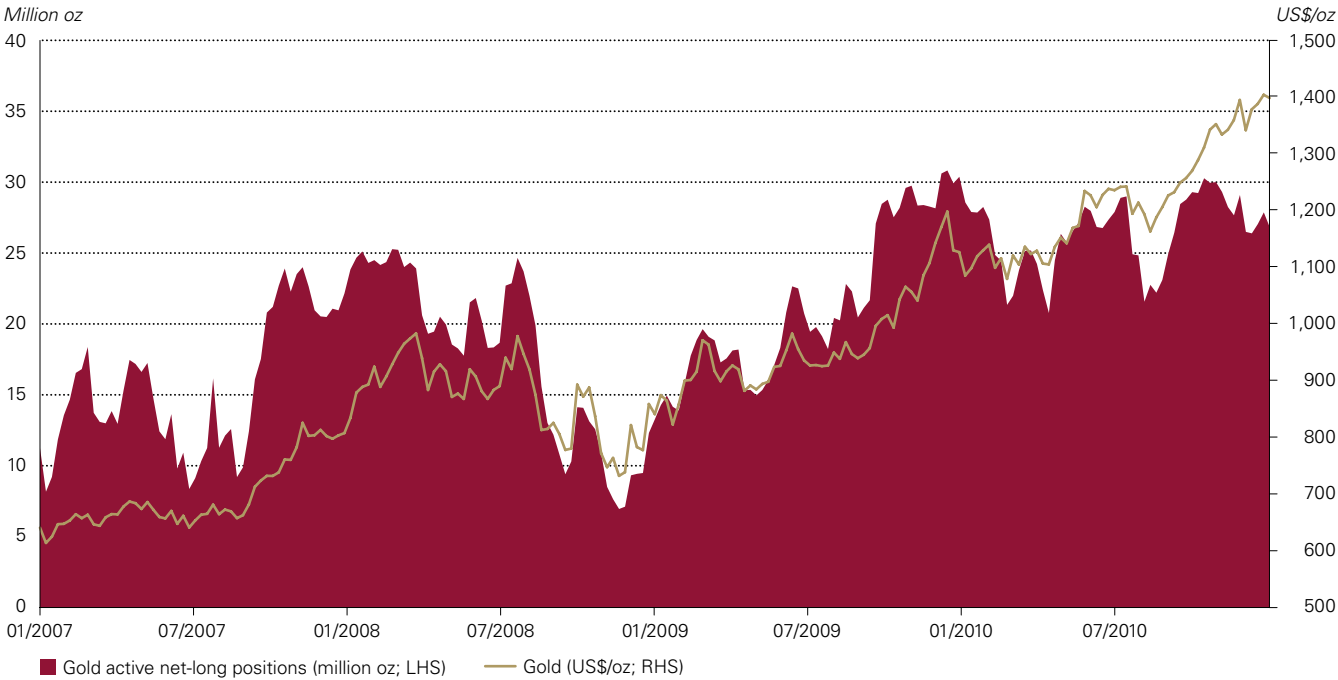
COMEX total non-commercial and non-reportable net long positions, a measure of more speculative investment demand, remained robust during 2010. The net long hovered around 26.3 million ounces (818.1 tonnes) in 2010, very similar to the 26.0 million-ounce average seen throughout H2 2009 (Chart 6). In general, a healthy net long level supports the view that many investors continue to see value in the gold trade. Net long positions in the fourth quarter of 2010 increased by 6.9% relative to the third quarter, as long-only positions outnumbered their short-only counterparts. However, on a percentage basis, short-only positions increased the most, rising 17.3% on average during Q4 2010 relative to the previous quarter; long-only contracts had a more modest 8.9% increase during the same period as some investors sought to benefit from year-end profit taking on the gold market.

Over-the-counter market

According to research carried out by GFMS on behalf of the WGC, activity in the over-the-counter (OTC) market was robust throughout 2010, similar to the pattern observed in other sectors of investment demand. In particular, the OTC market surged in Q4 2010, with some substantial long positions being taken recently. However, some reports show investors switched from long to short positions when gold breached the US\$1,400.00/oz mark. Nevertheless, the overall net impact of the OTC flows is considered, on balance, to have had a positive influence on the physical market and contributed to gold's performance during the quarter and the year. GFMS analysis suggests that many investors shifted into the OTC market during Q4 from the ETF and futures market.

In general, demand for gold derivatives in the OTC market was particularly strong during the fourth quarter, as investors sought to gain leveraged exposure in a rising price environment. Demand for allocated metal accounts also grew. Moreover, in addition to inflows into spot, forward and vanilla derivative products in gold, demand increased quite notably for basket and index products in commodities that contain a weighting in gold. Indeed, investor interest in these products surged in 2010, as commodity prices in general experienced a powerful rally.

Chart 6: COMEX net long on non-commercial and non-reportable positions on the active gold futures contract (million oz) versus the gold price (US\$/oz)



Source: COMEX, Bloomberg, WGC

Bars and coins

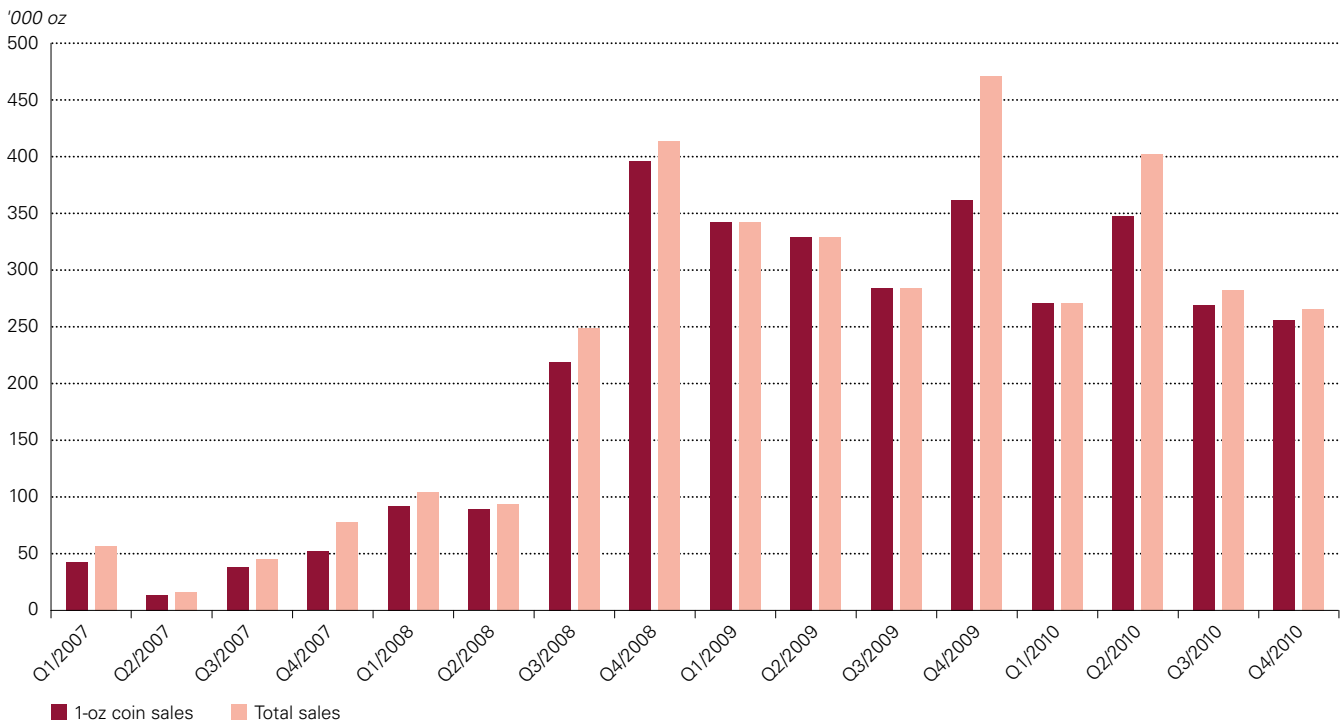
Investment activity in China remained high. Physical delivery at the Shanghai Gold Exchange totalled 836.7 tonnes in 2010, with 236.6 tonnes delivered during Q4. Moreover, physical delivery as a percentage of trading volume had increased to 33% by the fourth quarter, as Chinese investors sought to get hold of gold bullion. Anecdotal evidence suggests continuing strong demand for retail investment products. Of note was the successful launch, on 16 December, of the Industrial and the Commercial Bank of China (ICBC) gold accumulation plan (GAP) in Beijing. The new product, developed in collaboration with the WGC, accumulated 11.5 tonnes during 2010 with more than one million accounts opened.

Gold investment in other parts of Asia remained at a healthy pace. In Taiwan, the Bank of Taiwan (BOT) reported that gold demand remained robust, mainly expressed through a 25% increase of Gold Passbook sales, and a 35% increase of physical gold sales from year-earlier levels. In Vietnam, retail investment demand remained very strong, and some estimates indicate gross purchases of 25 tonnes in Q4 alone, even as the gold price reached new record highs. In order to match the growing demand for gold "tael" bars, the State Bank of Vietnam (SBV) increased gold import quotas by more than 20 tonnes during the same period. This trend is likely to continue during the first part of 2011. One of the major reasons for this surge in retail investment demand was a high inflation rate in 2010 (+11% YoY) and the steep devaluation of the Vietnamese dong versus the

US dollar in the same period. In India, initial reports suggest that gold medallions and bar sales were strong during 2010 as a whole, and in particular in the fourth quarter, relative to the same period of the previous year. Consequently, the Reserve Bank of India has authorised seven more banks to import bullion. The WGC expects the impact of this measure to be visible during 2011. In general, Indian investors are responding to strong economic growth coupled with a higher rate of inflation (e.g. food inflation had grown to 18% by year-end) and are raising their allocation to gold to a substantial share of their holdings. The experience in both Vietnam and India serves to demonstrate how investors around the world are using gold for currency and inflation hedging against their own currencies.

Private investor demand for bars and coins in Europe and North America also continued to grow during 2010, in line with activity observed in other categories of investment demand. European and American investors led the way in gold bar and coin buying for multiple purposes, including risk protection and currency and/or inflation hedging. In the US, investors bought 1.2 million ounces (38.0 tonnes) worth of American Eagle bullion coins, according to the US Mint, just shy of the record 1.4 million ounces (44.3 tonnes) sold during 2009 (chart 7). While American Eagle sales in Q4 2010 were still high on a historical basis, they only accounted for 8.3 tonnes, below the previous 3-quarter average of 9.9 tonnes. Investors wishing to purchase gold coins or small bars can find a list of retail dealers on our website at: http://www.gold.org/investment/why_how_and_where/where_to_invest/.

Chart 7: American Eagle bullion sales



Note: Total sales includes 1-, 1/2-, 1/4-, and 1/10th-ounce coin sales.

Source: The United States Mint

Lease rates

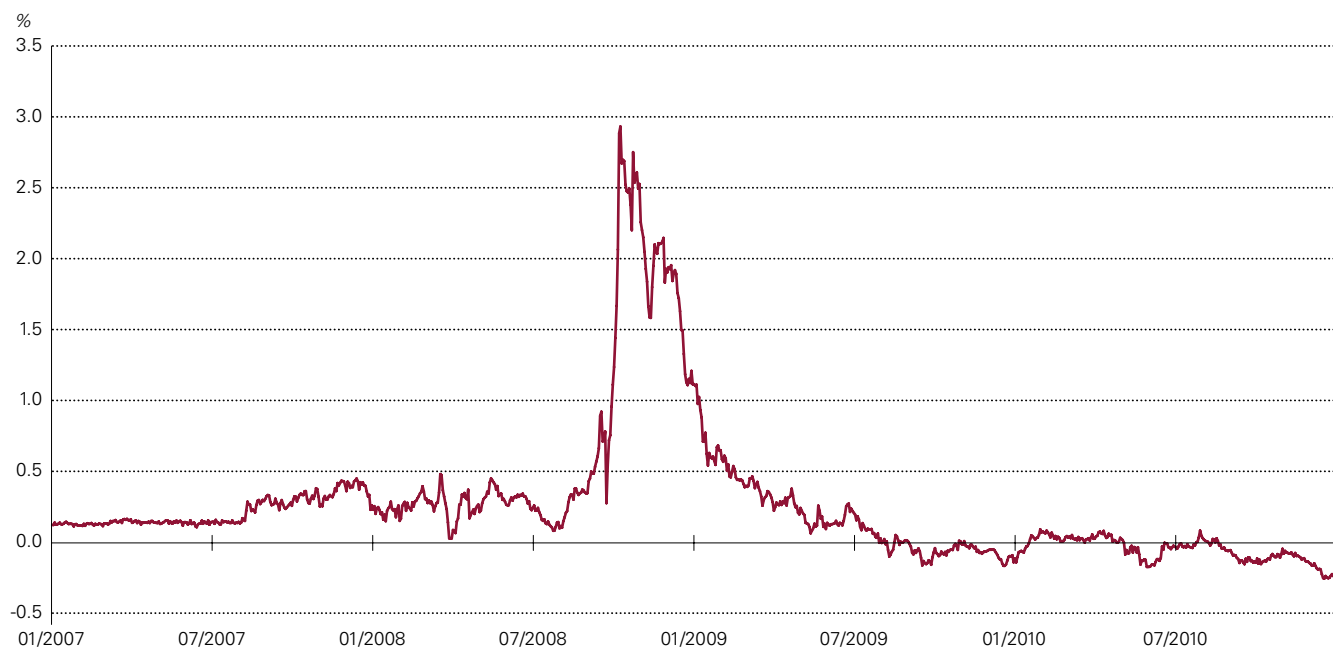
The implied gold lease rate is the difference between the US Dollar LIBOR and the equivalent duration Gold Forward Offered Rate (GOFO), the rate at which gold holders are willing to lend gold in exchange for US Dollars (also known as the swap rate). Gold lease rates remained negative throughout 2010, reaching an all-time low of -0.25% in the 3-month maturity on 15 December. Within two days of this landmark, other maturities also reached all-time lows with the exception of the longest maturity 12-month implied rate. Examining the components of the lease rates, both GOFO and LIBOR at 3-month maturity moved in relative tandem until Q4 2010 when GOFO started to marginally rise above LIBOR from about 0.35% to 0.50%. Although a rather insignificant move in magnitude, it nonetheless sent the implied lease rate to its record lows (Chart 8).

However, the significance of the lease rate has declined as the two main market participants – gold producers and hedge funds – have scaled back their activity over the last decade. Furthermore, –the growth in gold investment vehicles and futures volumes has likely shifted the influence away from OTC forward agreements to exchange-based futures markets.

Nevertheless, negative lease rates do not necessarily suggest that lenders of gold, usually central banks, are paying lessees, bullion banks. As gold leasing is an opaque, OTC market, it is difficult to ascertain whether or not implied rates are reflective of the actual transacted rates. Furthermore, central banks incur costs associated with storage, so lending gold at a low lease rate – perhaps even a periodically negative one, could still be advantageous. Such a transaction might not provide a central bank with a gain, but would reduce their carrying costs. Suggestions that this may be indicative of diminishing global storage capacity and with it, rising costs, are also unfounded. In fact, new vaulting capacity has recently appeared both in Singapore’s Freeport area and in Hong Kong.

One conclusion that can be drawn from the data, however, is that lease rates are very low and a profitable leasing environment currently does not exist. As the leasing process will more often than not involve the sale of physical gold in the spot market, to ensure a riskless hedge for bullion banks, the current environment should also be supportive of the gold price.

Chart 8: Implied 3-month lease rate



Source: Bloomberg, WGC

Market and economic influences

A combination of macro-economic factors coupled with positive demand and supply dynamics ensured gold remained a sought-after asset during 2010. Overall, mixed economic news around the world kept investors looking for alternatives to balance risk and performance in their portfolios.

On the one hand, concerns continued to be felt over the economic health of growth in developed countries, and market participants have sought to hedge various risks, including currency exposure and systemic shocks. On the other hand, many developing countries, including China and India, continue to grow which has led to strong demand for many commodities but also higher levels of inflation.

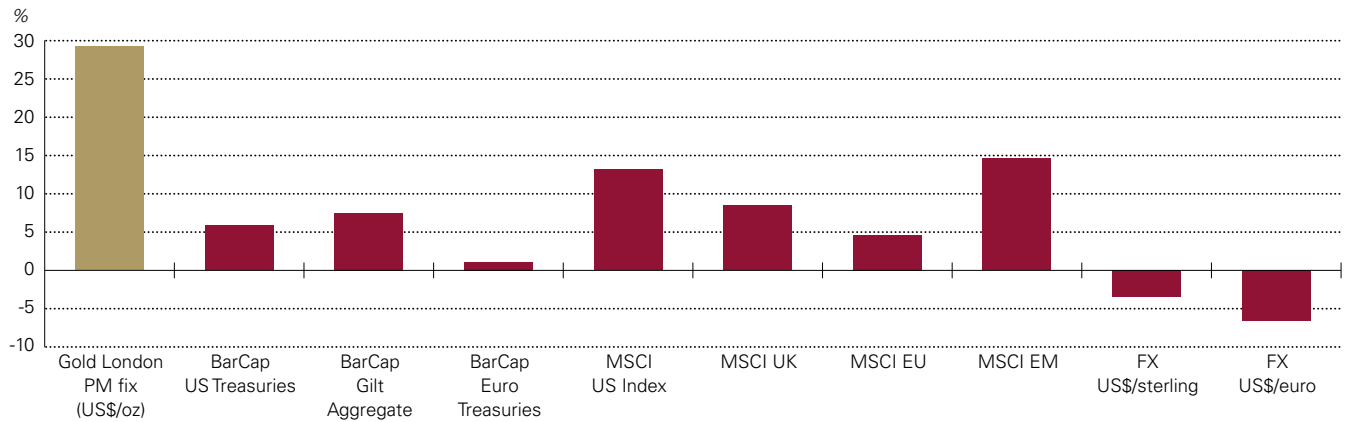
Markets across Europe, where the sovereign debt crisis that started to make headlines in late 2009 became a cause for unprecedented intervention by the European Central Bank (ECB), started to recover from the low levels experienced in Q2 2010. However, while Greece experienced problems earlier in the year, news in Q4 of the worse-than-anticipated state of finances in Ireland increased the risk of a contagion to other countries such as Portugal, Spain and, to some extent, Italy back under the microscope. As such, European investors have turned to gold as a hedge against currency risks.

After an initial recovery the US labour market remains subdued, the unemployment rate remains high and while there was a temporary increase in government jobs, the full-time private sector has not generated a corresponding increase in employment. Against this backdrop, the Federal Reserve announced the second phase of quantitative easing (QE2) in November, with the potential to expand its balance sheet by US\$600 billion. This, in turn, had a positive impact on some risk assets, including equities, and cyclical commodities such as oil and industrial metals (Chart 9). Also at the same time, the prospect of higher levels of US debt and an extended period of record-low interest rates pushed investors to make upward revisions in their inflation expectations. Similarly, investors increased their bets on a long-term negative impact on the US dollar, not necessarily against the euro or the pound, but certainly against most other G10 currencies, most notably the Japanese yen, as well as those of many emerging markets, including the Chinese yuan (Chart 10).

Emerging markets maintained a more positive tone during 2010. Equity markets in general had positive returns of 14.4% in local currency and 18.8% in US dollar terms as economic growth continued at a healthy pace. For example, the Chinese economy is estimated to have grown at around 9.8% in 2010 and is expected to grow 8.5% in 2011 according to the World Bank (Chart 11). However, China has not escaped unscathed: headline inflation has been rising and the People's Bank of China (PBoC) raised interest rates for both deposits and loans during the latter part of 2010 in order to control it. That, coupled with a measured appreciation of the yuan against the US dollar, is likely to decelerate Chinese growth moderately and thus should have a subsequent positive effect on gold. Especially since Ministers of the PBoC, during the summer of 2010, announced a program called "The Proposals for Promoting the Development of the Gold Market", a signal of the government's commitment to further support growth in the gold market.

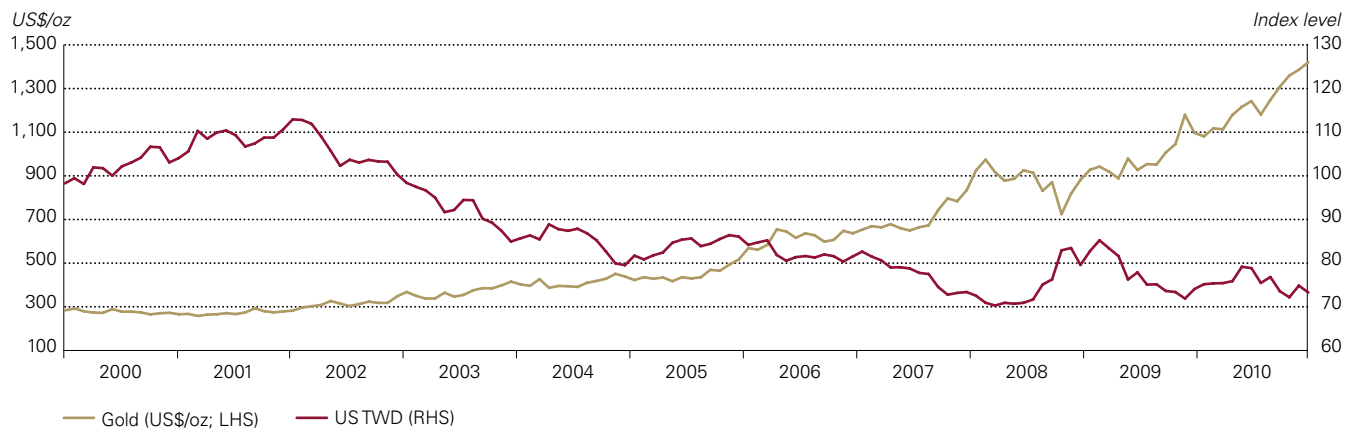
Similarly, India's growth also remains resilient. Real GDP grew at 8.9% during the third quarter as investment in infrastructure, exports, and industrial output continued to expand, and growth of around 9.0% is expected in both 2010 and 2011. However, the rate of inflation remained high (food prices were rising at an 18.0% pace by year-end), increasing the likelihood that interest rates could be raised at the next central bank review meeting. Given the importance of both India and China for the gold jewellery market (collectively, equating to 45% of total global jewellery demand in 2009); economic recovery in these countries tends to be accompanied by a positive outlook for gold. As the rupee and yuan slowly appreciate, gold remains an effective and accessible savings vehicle. Moreover, investors can and will continue to use gold to hedge against local inflationary pressures.

Chart 9: Performance of various assets classes in local currency (December 2010 YoY % change)



Source: Barclays Capital, MSCI Barra, WGC

Chart 10: Gold (US\$/oz) versus US trade-weighted dollar index



Source: London Bullion Market Association, Federal Reserve

Chart 11: Chinese real GDP growth (%YoY) and CPI inflation (%YoY)



Source: National Bureau of Statistics, China Economic Information Net

The shift in risk from the private to the public sector from 2007 to-date and its implications for gold

The continuation of the European sovereign debt crisis during the last part of 2010 and its potential spill-over to other markets has highlighted the prevalence of systemic risks which investors now face. This, in turn, reinforces the need for market participants to finding cost-effective strategies to preserve their capital. Historical analysis demonstrates that gold plays a critical role in such strategies.

The global banking crisis that began to unfold in 2007 has placed a great burden on governments, but especially in developed markets. Although some semblance of normality had returned by Q2 2009, it became clear that a large number of insolvent financial institutions had been kept afloat by governments fearful of systemic implications.

A sizeable portion of banks' risky assets had been transferred from the private to the public purse in exchange for credit lines leading increasing debate about the strain on the taxpayer and the sustainability of public debt. Moreover, the unavoidable ensuing global recession added further fiscal pain and stimulus packages and tax breaks contributed to deteriorating fiscal positions.

This, along with a lack of fiscal prudence and debt consolidation in many countries during the good times, was also a driver of the risk shift from banks to governments, a shift which trended steadily into 2010. This, in turn, has had and will continue to have implications for the gold market. In particular, this type of systemic risk provides a strong rationale for investors, both public and private to use gold as a currency and inflation hedge, a means of preserving capital and protecting against tail-risk events.

CDS market for sovereign and corporate bonds in perspective

A witness to the shifting sands has been the global credit default swap (CDS) market. Being primarily an over-the-counter market, it is more opaque than exchange-traded securities and accessible only to sophisticated investors. Growth in this esoteric sector took off while the crisis was in full swing. It is used by hedgers and speculators alike.

The total outstanding gross notional value of CDS contracts was over US\$25 trillion in December 2010,² representing approximately 30% of the value of the underlying bond markets.³ Despite a pull-back from 2007 levels, the growth in CDS volumes has been phenomenal over the last 10 years. However, the absolute level is still considerably smaller than the underlying bonds, especially for sovereign debt. Notwithstanding certain criticisms levelled at CDS market, they can serve as a useful signal of market sentiment toward the underlying instrument with regard to expectations of the likelihood of default or restructuring of government-backed bonds.⁴

2 Depository Trust and Clearing Corporation (DTCC).

3 ISDA.org.

4 FT. "Brussels gives sovereign CDS trading all-clear", FT.com, 6 December 2010.

Charting the risk shift

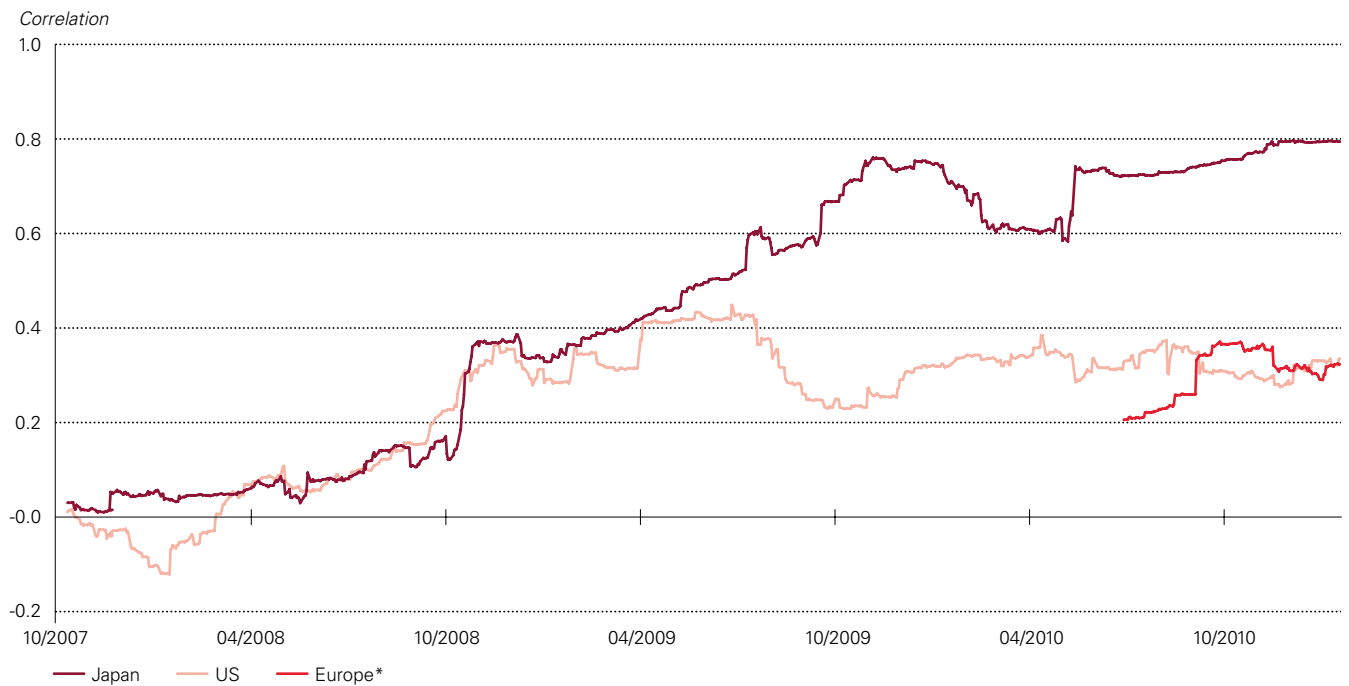
The increasing correlation between the default risk priced into sovereign bonds and their respective major financial institutions in the issuing countries concerned is shown in Chart 12. Prior to the second half of 2008, corporate CDS spreads and their underlying bond yields showed a very low correlation as risks for individual institutions remained idiosyncratic. This began to change as the financial crisis ensued and troubled assets were transferred from corporate balance sheets onto government books and systemic risk became more prominent.

Such a shift is not unique to the most recent crisis, but a natural occurrence following a banking crisis (most recently in Sweden in the early 1990s)⁵ as government assumed private sector debt. However, the recent crisis has proved unique in its breadth and depth accompanied by the threat of contagion.

The rising correlation between the CDS spreads of banks and sovereigns is indicative of the increasing risk of default in the latter coupled with the fact that banks are substantial holders of government debt. This trend is most noticeable among European nations. The issues in Greece and Ireland have been well documented, and are now at risk of spilling over to Portugal, Spain and, to some extent, Italy.

However, CDS spreads, and their correlation with banks' spreads have increased almost universally among developed nations, albeit with smaller incremental changes in the US and Japan. The benign moves in the latter belie the fact that their fiscal positions are equally strained. The US, as the global 'creditor of last resort' can borrow in the world's reserve currency and has seen buoyant demand for its Treasury securities. Japan has seen similar demand from domestic investors. With bond market volumes far in excess of CDS volumes, neither Japan nor the US has experienced a case of the 'tail wagging the dog'.

Chart 12: Rolling correlations between sovereign and financials CDS spreads (using daily log changes)



* Average of Germany, France, Italy, Spain and Portugal.

Source: MARKIT, Bloomberg, WGC

5 Reinhart & Reinhart, After the Fall, NBER Working Paper, August 2010.

The extent of the troubles for developed sovereign governments is further visible in Chart 13, which depicts the convergence of emerging market and developed market default risk.

In fact since December 2010, it has been cheaper to insure a basket of emerging market bonds than a basket of European bonds.

The focus currently is on Europe, which faces distinctive challenges given the divergent economies of the north and the south. Furthermore, the European Central Bank (ECB) has been reluctant to engage in quantitative easing to the extent that the US, Japan and the UK have. Episodes of political wrangling and discord have also slowed initiatives to deal with the crisis. In fact since August 2010, as shown in Chart 14, CDS spreads have been higher on sovereign bonds than on financial institutions.

While this immediately conjures up the suggestion that a sovereign nation in Europe may be bankrupt, this is not the case. Unlike corporate CDS, the type of sovereign default that is priced in to a contract generally concerns restructuring. In other words, markets are pricing in the increased probability that one or more European nations will restructure some or all of its debt. Such an event, while not catastrophic would have severe implications for holders of sovereign debt and for future issuance.

Implications for the gold market

The current shift has a number of potential implications for gold. First, the increasing risks associated with government securities, as seen in CDS spreads, have been reflected by ratings agencies enacting a series of downgrades on European sovereign debt, with others being put on negative outlook. These downgrades can trigger a spiral of further deterioration. Government bonds are held for their safe and reliable income streams. If volatility and implied risk-premia increase, investors may have to turn elsewhere to park defensive capital. In this case, gold has a long track record as an alternative vehicle for wealth preservation.

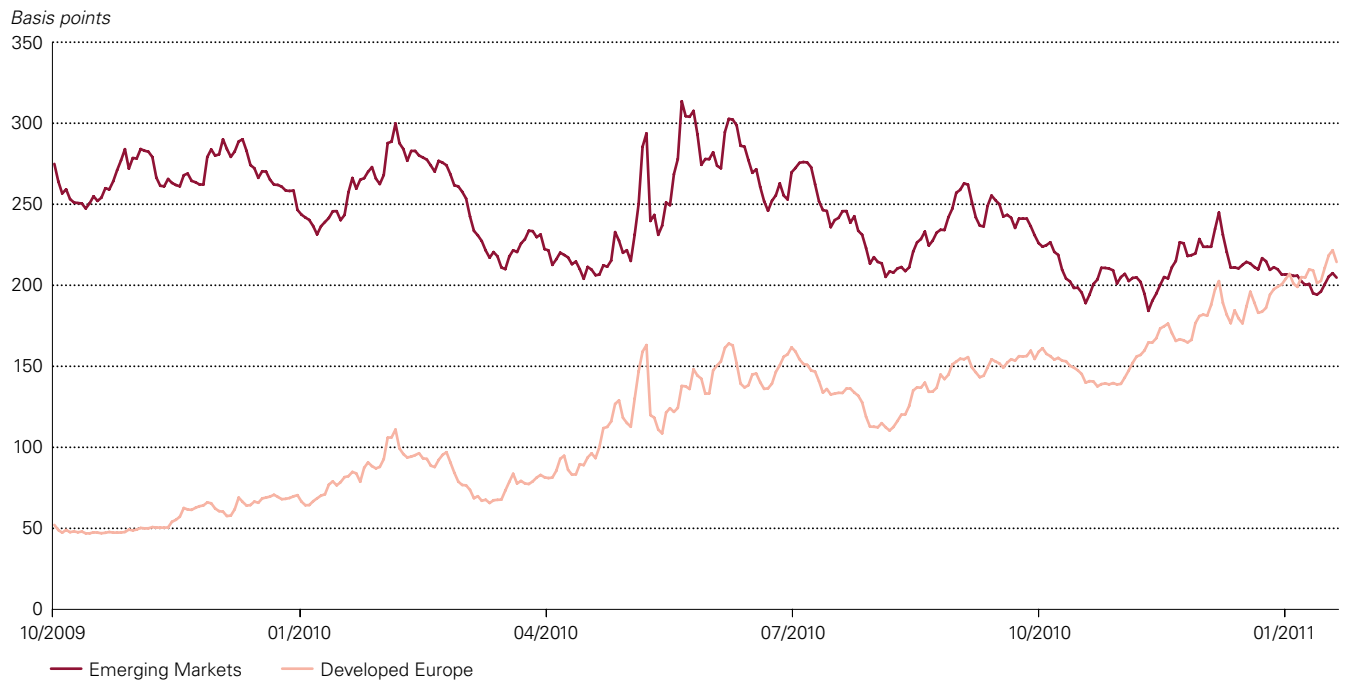
Second, currencies issued by these countries are also likely to suffer. The lack of fiscal rectitude in many countries along with loose monetary policy is weighing heavily on developed market currencies with the euro being most affected as the region tries to shake off its current malaise. This, in turn, increases the potential demand for gold in its role as a currency-hedge. Indeed, gold acts as global currency which is not affected by monetary or fiscal policies.

Third, uncertainty will likely not dissipate any time soon. While growth is looking promising in some developed countries including the US, the building blocks of expansion are brittle as unemployment remains high and structurally problematic, cost-push inflation is hurting the consumer and housing markets remain anaemic.

Moreover, while the US seems to be coping better with the crisis relative to other countries with similar circumstances, it also has fiscal and monetary policy issues it will have to face. Its budget deficit is high and the quantitative easing measures implemented by the Federal Reserve have put a long-term burden on the US dollar.

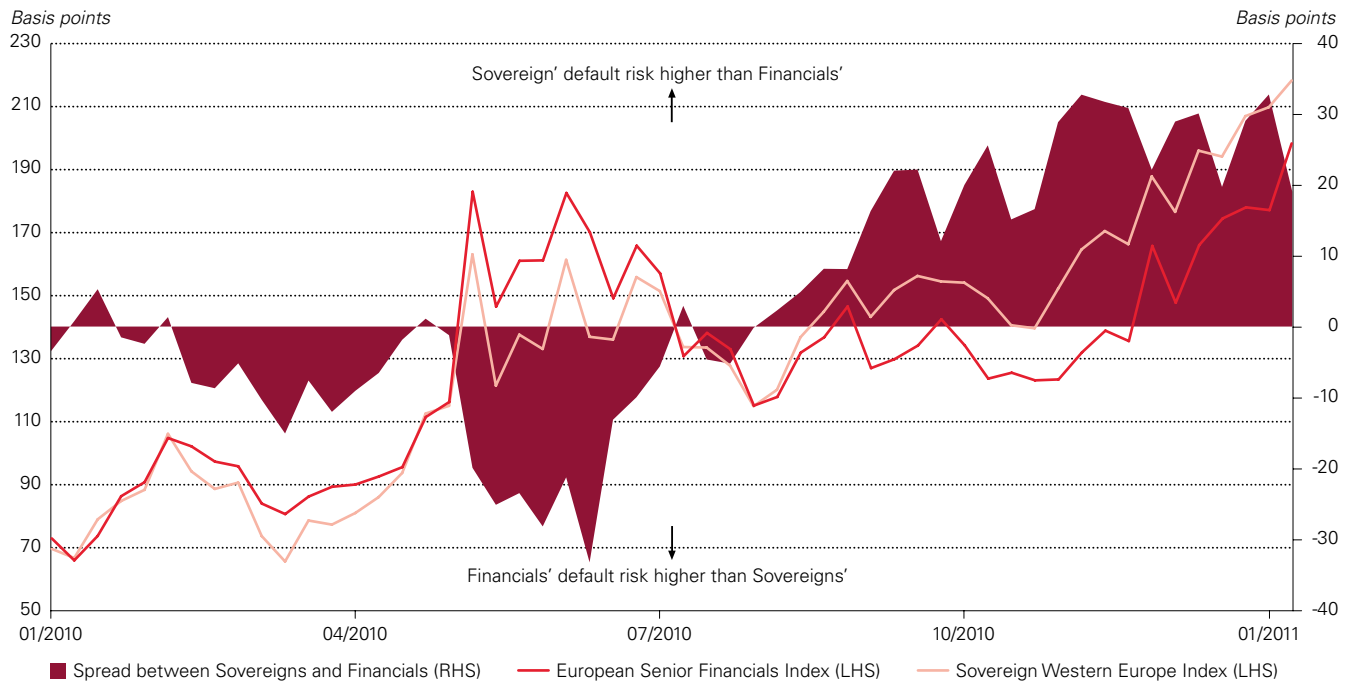
If growth does take hold, then inflation risks will increase. In many key gold markets, most notably India, inflation is already seen as problematic. This poses a challenge for governments and central banks wishing to withdraw liquidity without triggering another shock to the economy. In this case, investors may also use gold in its capacity as an inflation hedge.

Chart 13: Developed market vs emerging market CDS spreads



Source: MARKIT

Chart 14: European sovereign vs senior financial CDS indexes



Source: MARKIT, WGC

Gold market trends

Please note that data on jewellery and industrial demand is released with a lag; the latest data is as of Q3 2010. Data for the fourth quarter of 2010 will be released in mid-February 2011.

During 2010, the gold price performance was not only supported by strong investment activity, but also by a consistent recovery in the jewellery sector and a normalisation of gold demand in technological applications. Moreover, gold supply has not risen at the same pace as demand in part due to a continuation in the declining trend of official sector sales. Indeed, for the first time over the past two decades, the official sector is set to record net inflows during 2010.

Jewellery

Global jewellery demand totalled 1,468.2 tonnes during the first nine months of 2010, increasing 18% from the same period during 2009. While the final data for Q4 2010 will be released in mid-February 2011, current trends indicate that 2010 will see further normalisation in gold jewellery consumption from the low levels experienced in 2009. Moreover, expressed in value terms, jewellery demand totalled US\$55.5 billion during the first three quarters of 2010, equal to the US\$55.5 billion spent globally on gold jewellery during the whole of 2009 (Chart 15). In other words, consumers have increased their gold jewellery spending during 2010, despite the measured appreciation in the gold price in multiple currencies. This is likely the product of two factors: first, a continuation of economic growth and currency appreciation in key countries for the gold market, including India, China and to some extent the Middle East; and second, a higher perception of value for gold jewellery around the world, both as a luxury good as well as a store of wealth.

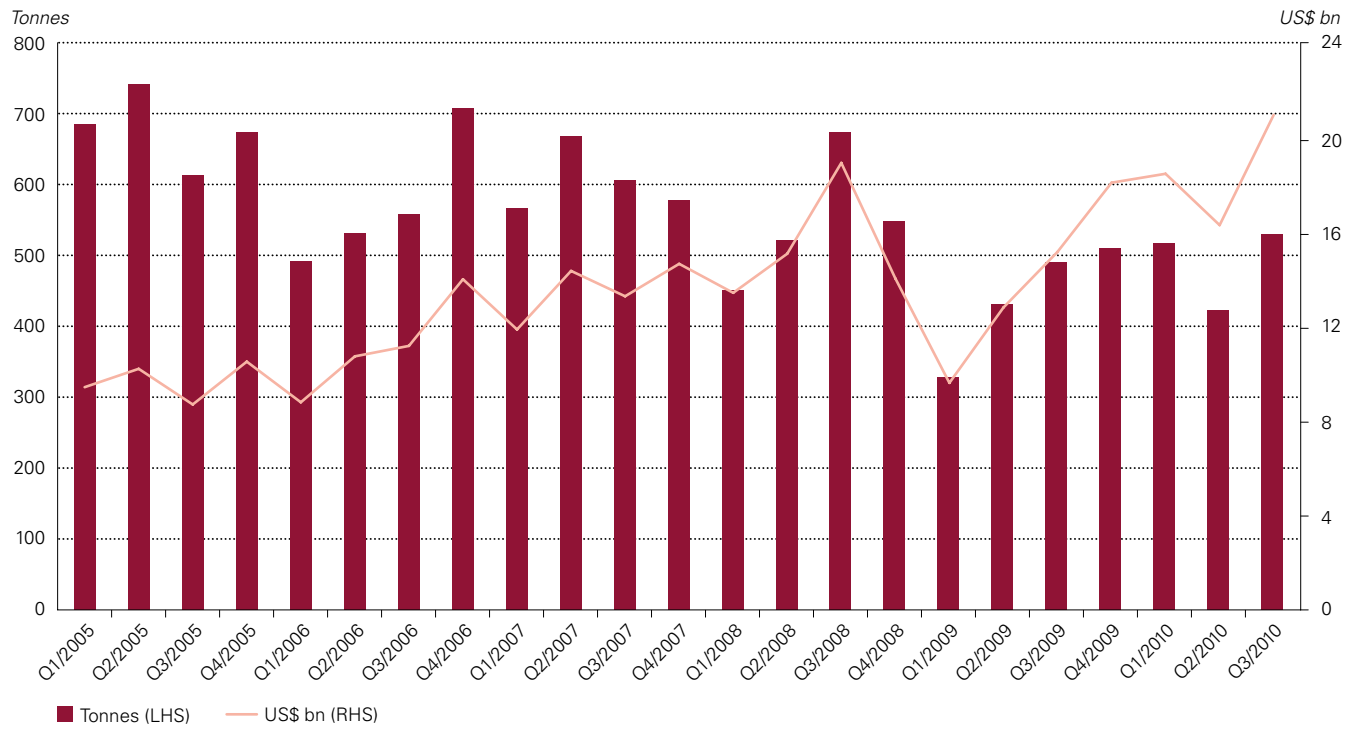
At the country level, India, the largest gold market, is poised to exhibit the strongest recovery during 2010 (Chart 16). During the first nine months of 2010, gold jewellery consumption in India rose to 513.5 tonnes, 73% higher than the same period during 2009, as consumers benefitted from continued economic growth and periods of rupee appreciation against the US dollar. Similarly, gold jewellery demand in Hong Kong, Russia, mainland China, and Saudi Arabia rose by 27%, 19%, 8% and 2% respectively, during the first three quarters of 2010, from year-earlier levels. Indeed, China – the second largest gold market – also benefitted from healthy growth and renewed interest in gold consumption. While its 2010 performance so far has been less strong than India, it is worth noting that China was the only market that did not experience a contraction in

jewellery consumption during 2009. On the other hand, gold jewellery volume demand in the UAE, Japan, Vietnam and Turkey was slightly lower during the first nine months of 2010, relative to 2009, while the rest of the world saw more significant contractions in jewellery consumption. Notably, European demand had a volume drop of more than 15% in most markets, on the back of a sluggish recovery and currency depreciation. Nevertheless, as with the overall jewellery market, while volumes fell, the value of gold jewellery demand generally rose in most countries.

Preliminary reports on demand trends during Q4 2010 appear to follow a similar trend. In India, the gold market was buoyant during the festive season (October – November), especially around the Hindu festival of Diwali, its biggest annual gold consumption event. Overall, anecdotal evidence suggests Q4 2010 was better year-on-year, as consumers ramped up wedding-related jewellery purchases in anticipation of further price appreciation. In other Asian markets, evidence also suggests a positive trend, as jewellery consumption in Vietnam, whose wedding season reaches a high during December, picked up despite a sharp depreciation in the Vietnamese dong.

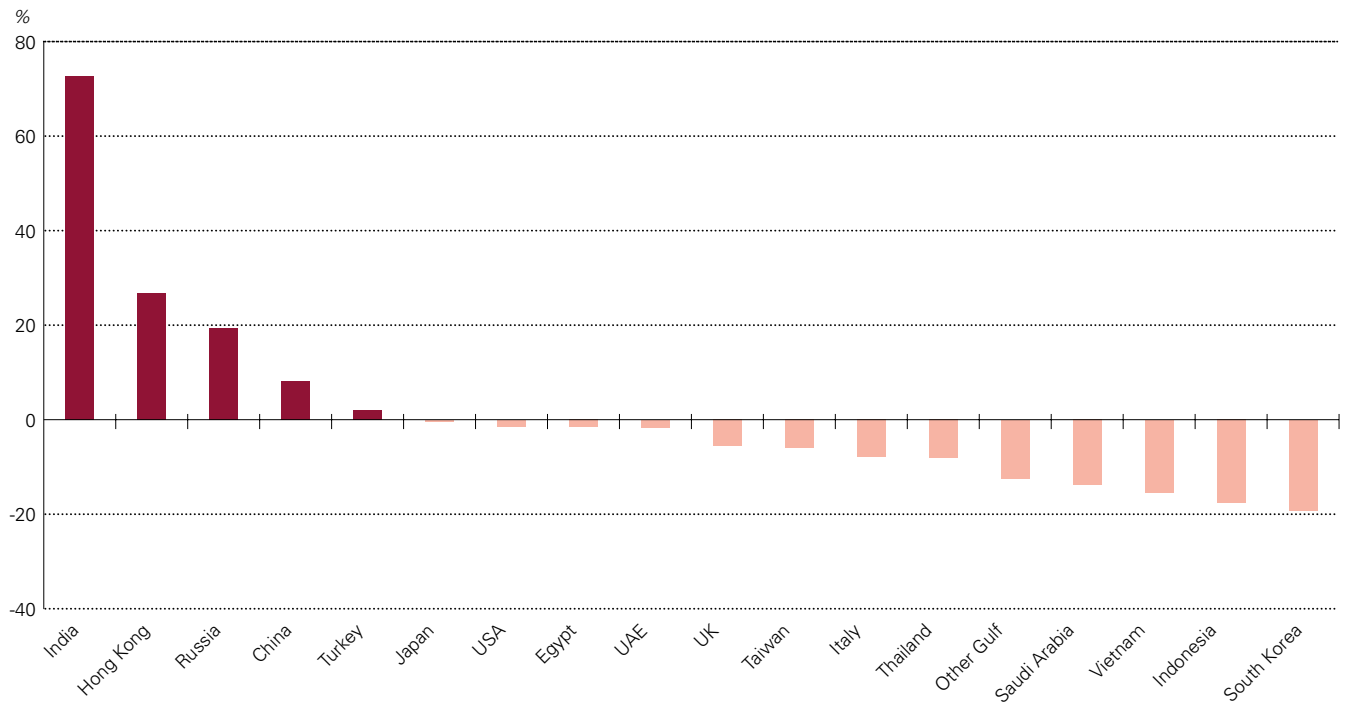
In the US, the 8% YoY decline in the value of gold jewellery imports in September was indicative of a desire among mass retailers to tightly manage their gold inventory levels in anticipation of the holiday season, as the price trended higher into the end of the year. However, there was an increase in sales of gold jewellery at the high-end (over US\$1,000 per piece) as pent-up demand among consumers with greater amounts of discretionary income was released. The WGC estimates that high-end purchases could offset lower sales at middle and lower price points, leading to a slight positive growth in value terms during Q4 2010 although volumes are still expected to be down relative to Q4 2009.

Chart 15: Jewellery demand in tonnes and US\$ billions



Source: GFMS, WGC

Chart 16: Tonnage growth in jewellery demand by country (% 9M 2010 vs 9M 2009)



Source: GFMS

Technology

Gold demand for technological, industrial and dental applications continued to recover during the first nine months of 2010, registering a 19% increase over the same period in 2009. Electronics demand, which bore much of the brunt of the economic downturn in 2009, was the chief driver of this rise, buoyed by ongoing inventory restocking and fresh demand for new technologies.

The consumer electronics segment, which dominates industrial demand for gold, registered another robust rise in the first part of 2010, a clear indication that the industry is continuing to recover from the recession-led losses sustained in early 2009. It rose by 26% in the first three quarters to 221.8 tonnes, close to the 238.4-tonne level observed in the same period during 2008 (Chart 17). Demand for semiconductors (produced using gold bonding wire) has continued to rise, with numbers boosted by sales of personal computers, mobile devices and corporations upgrading their information technology systems, plus a modest rise in demand from the automotive industry. Much of this growth has been led by the developing world, in particular China and India. Finally, gold used in dental applications, which accounts for about 10% of technological and other industrial application demand, declined by a further 6% YoY during the first nine months of 2010 to a new record low, as substitution by alternatives, such as ceramics and base metals, continued to erode the use of gold in this segment.

Preliminary reports on Q4 2010 activity indicate that the positive trend of last year in electronics demand remains quite strong. Moreover, predictions from major semiconductor players are bullish for 2011. While some manufacturers have been reducing gold coating thicknesses on contacts and connectors – the second major use in electronics – to lower costs, anecdotal evidence suggests some component failures have helped limit the practice.

Please note that data on mine production and recycled gold is released with a lag; the latest data is as of Q3 2010. Data for the fourth quarter of 2010 will be released in mid-February 2011.

Mine production and recycled gold

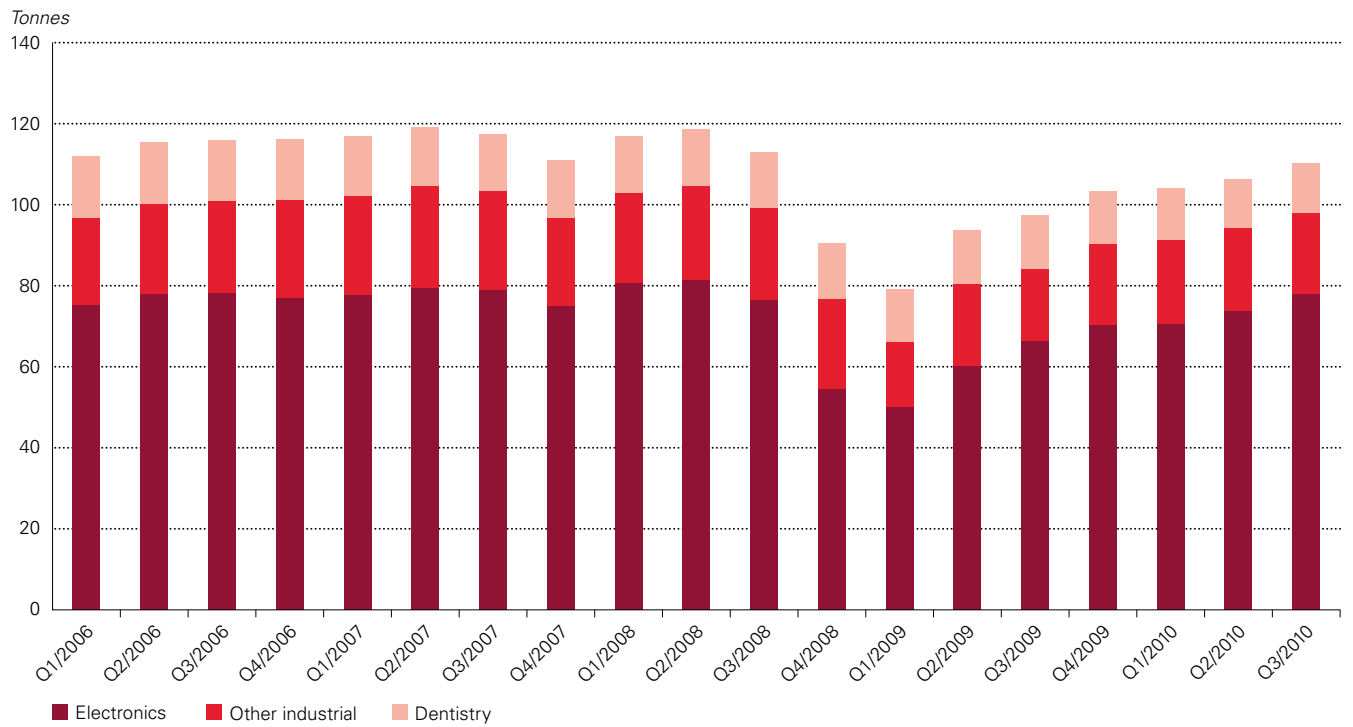
Total gold supply – including mine production, recycled gold and official sector transactions – totalled 2,993.3 tonnes during the first nine months of 2010, a 3.1% decline from the same period during 2009. However, mine production increased by 2.6% to 1,954.2 tonnes in the first three quarters, from 1,903.7 tonnes in the same period a year earlier as a raft of new operations either came online or ramped up production (Chart 18). While Q4 data will be published in mid-February 2011, based on the first three quarters of the year, 2010 is set to mark the second consecutive annual increase in gold production, and it could reach levels previously seen at the beginning of the decade.

Australian production significantly contributed to the increase in output as high grades of ore at Newmont's Boddington mine boosted production. Further positive contributions came from Mexico, where Agnico Eagle ramped up its Pinos Altos operation, and Argentina and the US, with Barrick's continued expansion of its Valadero mine, and higher than expected grades from Cortez Hills. Offsetting the impact of these developments was a decline in production in Peru and Indonesia.

Net producer de-hedging continued to act as a slight constraint on supply, although at 84.6 tonnes in the first three quarters of 2010 this was below the 127.5 tonnes recorded during the year-earlier period. While estimates on hedging activity in Q4 are not yet final, the outstanding global hedge book was reduced to around 65.0 tonnes, following the elimination of the AngloGold Ashanti hedge book in early October of 2010. These moves to unwind their hedge books have enabled miners to sell gold at market prices.

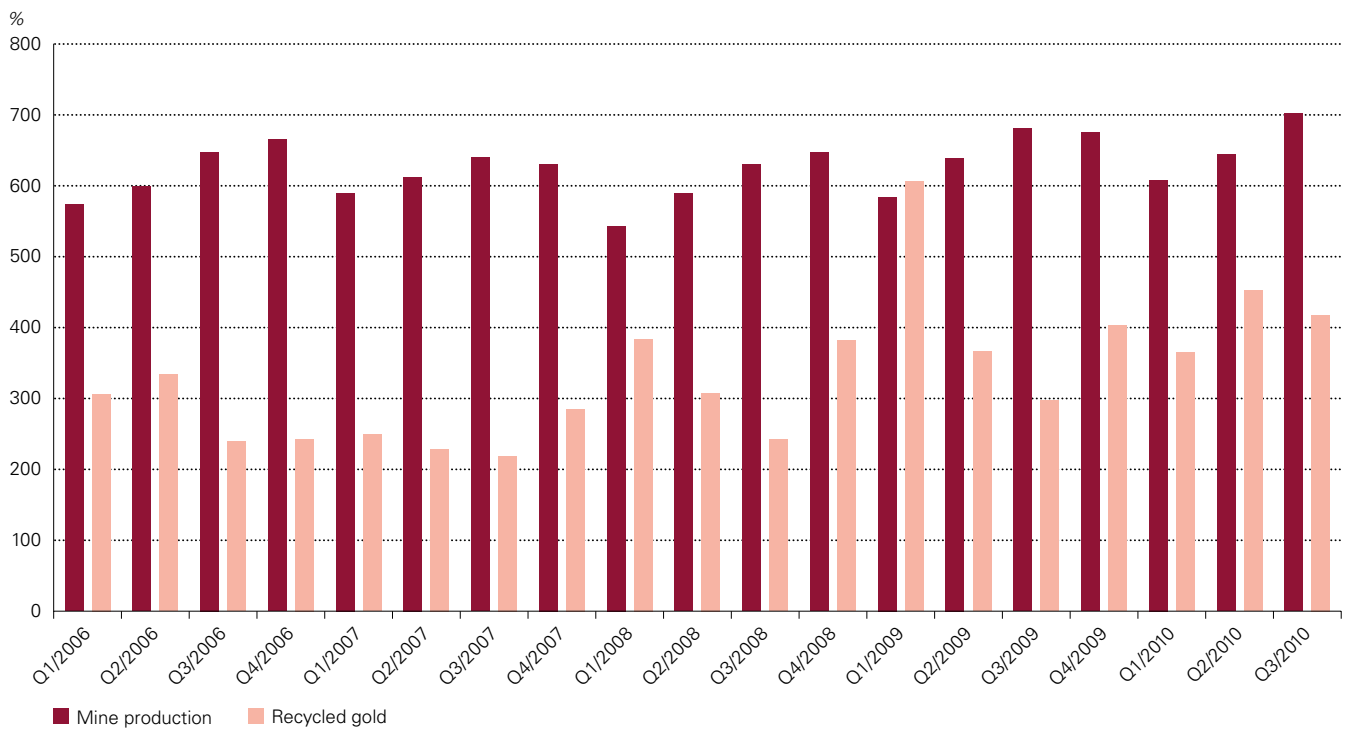
While gold prices continued to trend up in 2010, recycling activity during the nine months ending September 2010 declined by 2.7% to 1,234.8 from 1,268.8 on year-earlier levels. This has been partly driven by continued economic growth in emerging economies, and especially in India and China which substantially contribute to recycled gold supply. However, recycling activity remains high on a long-term basis, especially among Western consumers who have gradually seen a rising trend in recycling. This, coupled with higher price levels ensured that profit-taking on recycled gold in Western markets was marginally higher than year-earlier levels. Similarly, Middle East and Asian markets also witnessed a consistent supply of recycled gold during 2010. There is some evidence however, that near-market supplies in these traditional markets are becoming exhausted and that a fresh surge in the gold price would be required to generate another significant wave of selling-back.

Chart 17: Industrial demand by category in tonnes



Source: GFMS

Chart 18: Mine production and recycled gold supply in tonnes



Source: GFMS

The official sector

On 21 December, 2010, the IMF announced the conclusion of its limited gold sales program covering the sale of 403.3 tonnes of gold that was approved by its Executive Board in September of 2009. The proceeds of this program will be used to set up an endowment fund, the income from which will finance the regular research and monitoring work of the IMF. In addition, some of the proceeds will be used to support low-income countries.

The IMF conducted the majority of its sales in off-market transactions at market prices with central banks, selling 200 tonnes to the Reserve Bank of India, 10 tonnes to the Central Bank of Sri Lanka, 10 tonnes to the Central Bank of Bangladesh and 2 tonnes to the Central Bank of Mauritius. The remaining sales were conducted through on-market sales within the ceiling set by the third Central Bank Gold Agreement CBGA3. The ease with which the IMF conducted its sales over the past year and the negligible impact they have had on the gold market are a testament to the depth and breadth of the global gold market.

The Central Bank of the Russian Federation bought an additional 9 tonnes of gold in November, after purchasing 19 tonnes in October. In total, Russia's gold reserves increased by 131 tonnes in the first ten months of 2010 to 784 tonnes. With these additional purchases, Russia has now surpassed Japan in gold reserves and is ranked eighth in the world for gold reserves (Table 4).

Finally, Venezuela reported an increase in gold reserves in November of 2 tonnes, which is understood to be continued buying of domestic production along the same lines as earlier in the year.

Table 4: Top 40 official gold holdings as in IFS January 2011*

		Tonnes	% of reserves**			Tonnes	% of reserves**
1	United States	8,133.5	75.2%	21	Belgium	227.5	38.2%
2	Germany	3,401.8	71.2%	22	Algeria	173.6	4.6%
3	IMF	2,827.2	¹	23	Philippines	156.5	12.5%
4	Italy	2,451.8	69.6%	24	Libya	143.8	6.1%
5	France	2,435.4	67.2%	25	Singapore	127.4	2.6%
6	China	1,054.1	1.8%	26	Sweden	125.7	11.7%
7	Switzerland	1,040.1	17.6%	27	South Africa	124.9	12.8%
8	Russia	784.1	7.2%	28	BIS ²	120.0	¹
9	Japan	765.2	3.1%	29	Turkey	116.1	6.2%
10	Netherlands	612.5	59.6%	30	Greece	111.7	79.6%
11	India	557.7	8.5%	31	Romania	103.7	9.7%
12	ECB	501.4	29.3%	32	Poland	102.9	4.7%
13	Taiwan	423.6	4.8%	33	Thailand	99.5	2.6%
14	Portugal	382.5	82.1%	34	Australia	79.9	8.5%
15	Venezuela	365.8	55.2%	35	Kuwait	79.0	14.2%
16	Saudi Arabia	322.9	3.1%	36	Egypt	75.6	9.4%
17	United Kingdom	310.3	17.5%	37	Indonesia	73.1	3.6%
18	Lebanon	286.8	28.8%	38	Kazakhstan	67.3	10.8%
19	Spain	281.6	39.6%	39	Denmark	66.5	3.5%
20	Austria	280.0	57.8%	40	Pakistan	64.4	16.7%

* This table was updated in December 2010 and reports data available at that time. Data is taken from the International Monetary Fund's International Financial Statistics (IFS), December 2010 edition, and other sources where applicable. IFS data is two months in arrears, so holdings are as of October 2010 for most countries, September 2010 or earlier for late reporters. The table does not list all gold holders: countries which have not reported their gold holdings to the IMF in the last six months are not included, while other countries are known to hold gold but they do not report their holdings publicly. Where the WGC knows of movements that are not reported to the IMF or misprints, changes have been made. The countries showing as having 0.0 tonnes of gold report some gold but less than 0.05 tonnes to the IMF.

** The percentage share held in gold of total foreign reserves, as calculated by the World Gold Council. The value of gold holdings is calculated using the end of October gold price of \$1,346.75 per troy ounce (there are 32,151 troy ounces in a metric tonne). Data for the value of other reserves is taken from IFS, table 'Total Reserves minus Gold'.

1 BIS and IMF balance sheets do not allow this percentage to be calculated. In the case of any countries, up-to-date data for other reserves is not available.

2 BIS data is updated each year from the BIS's annual report to reflect the Bank's gold investment assets excluding any gold held in connection with swap operations, under which the Bank exchanges currencies for physical gold. The bank has an obligation to return the gold at the end of the contract.

Source: IMF, national data, WGC

Key data

Table 5: Demand (cumulative Q4 2009–Q3 2010)

	Tonnes	% QOQ ¹	% YOY ¹	Value (\$bn)	% YOY ¹
Jewellery	1,978.0	2.0%	10.0%	73,581	43.0%
Identifiable investment	1,281.0	4.0%	-16.0%	48,148	11.0%
of which ETFs and similar products	388.0	-1.0%	-41.0%	14,799	-22.0%
Industrial and dental	424.0	3.0%	18.0%	15,800	52.0%

Source: GFMS, WGC

Table 6: Supply (cumulative Q4 2009–Q3 2010)

	Tonnes	% QOQ ¹	% YOY ¹	Value (\$bn)	% YOY ¹
Mining output	2,629.0	1.0%	3.0%	98,023	33.0%
Net producer hedging	-209.0	-	-	-7,677	-
Total mine supply	2,420.0	2.0%	2.0%	90,346	32.0%
Official sales	-124.0	-10.0%	-	-4,579	-
Recycled gold	1,638.0	8.0%	-1.0%	61,133	29.0%

Source: GFMS, WGC

Table 7: Gold price

	Q1 2010	Q2 2010	Q3 2010	Q4 2010
Gold (US\$/oz); London PM fix average	1,109.12	1,196.74	1,226.75	1,366.78
% QOQ	0.9%	7.9%	2.5%	11.4%
% YOY	22.1%	29.8%	27.8%	24.3%

Source: The London Bullion Market Association, WGC

Table 8: Volatility² (%) to end-September 2010

	1-month	3-month	6-month	1-year
Gold (US\$/oz)	14.3%	17.4%	15.4%	16.3%

Source: The London Bullion Market Association, WGC

Table 9: Market capitalisation

	Value (US\$ bn)
Above ground stocks of gold ³	7,277.0
ETFs (as at 30 September 2010) ⁴	97.9
Notional value of net long non-commercial and non-reportable positions as reported by CFTC gold futures (at 30 September 2010)	36.5

Source: GFMS, LBMA, CFTC, WGC

1 Quarter-on-quarter and year-on-year % change in rolling four-quarter totals.

2 Annualised daily return volatility.

3 Based on 2009 volume and Q4 2010 average gold price.

4 Data: www.exchangetradedgold.com; www.etfsecurities.com; www.ishares.com; Zurich Kantonalbank; Finans Portföy; www.Deutsche-Boerse.com; www.juliusbaer.com.

Table 10: Performance

	Gold (US\$/oz)	BarCap US Treasury Aggregate	S&P 500	MSCI World ex-US	DJ UBS Commodity Index	Brent crude oil (US\$/bbl)	Dow Jones/Wilshire REITs Index	Trade-weighted US\$
1-month	2.5%	-1.8%	6.7%	8.1%	10.7%	11.1%	5.1%	-2.1%
3-month	8.6%	-2.6%	10.8%	7.2%	15.8%	15.8%	7.8%	-0.4%
6-month	14.4%	0.0%	23.3%	24.6%	29.2%	27.7%	22.0%	-7.1%
1-year	29.5%	5.9%	15.1%	9.4%	16.8%	22.2%	28.5%	-1.1%
Volatility* (1-year)	16.3%	4.7%	18.1%	18.8%	17.0%	28.4%	28.2%	7.6%

* Annualised daily return volatility.

Source: Global Insight, Barclays Capital, WGC; performance calculations based on total return indices unless not applicable

Table 11: Correlations (3 years ending 24 December 2010, weekly returns)

	Gold (US\$/oz)	Trade-weighted US dollar	Brent crude oil (US\$/bbl)	S&P GS Commodity Index	R/J CRB Index	DJ UBS Commodity Index	"BarCap 1-3 month T-bills"	BarCap US Treasury Index	BarCap US Credit Index	BarCap US High Yield Index	S&P 500	DJ Industrial Average	Russell 3000	MSCI World ex-US	DJ/Wilshire REITs Index
Gold (US\$/oz)	1.00														
Trade-weighted US dollar	-0.44	1.00													
Brent crude oil (US\$/bbl)	0.35	-0.49	1.00												
S&P GS Commodity Index	0.35	-0.58	0.93	1.00											
R/J CRB Index	0.38	-0.62	0.88	0.97	1.00										
DJ UBS Commodity Index	0.40	-0.63	0.81	0.94	0.98	1.00									
BarCap 1-3 month T-bills	0.00	0.04	-0.06	-0.07	-0.12	-0.14	1.00								
BarCap US Treasury Index	0.06	-0.01	-0.34	-0.34	-0.33	-0.30	0.17	1.00							
BarCap US Credit Index	-0.08	-0.22	-0.09	-0.03	-0.01	0.02	-0.08	0.63	1.00						
BarCap US High Yield Index	-0.07	-0.40	0.35	0.43	0.44	0.46	-0.26	-0.27	0.42	1.00					
S&P 500	-0.02	-0.47	0.47	0.51	0.53	0.51	-0.20	-0.40	0.03	0.65	1.00				
DJ Industrial Average	-0.06	-0.42	0.44	0.47	0.49	0.47	-0.17	-0.40	0.01	0.62	0.98	1.00			
Russell 3000	-0.01	-0.48	0.48	0.52	0.54	0.52	-0.20	-0.41	0.02	0.66	1.00	0.98	1.00		
MSCI World ex-US	-0.13	-0.73	0.55	0.64	0.67	0.66	-0.24	-0.29	0.18	0.69	0.85	0.82	0.86	1.00	
DJ/Wilshire REITs Index	0.01	-0.35	0.34	0.35	0.37	0.36	-0.02	-0.36	-0.02	0.51	0.79	0.75	0.80	0.62	1.00

Source: Global Insight, Barclays Capital, WGC; performance calculations based on total return indices unless not applicable

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