

MATERIALS World



Volume 15 Number 7
July 2007

The voice of the materials,
minerals and mining communities.
Incorporating International Mining
and Minerals

Golden opportunities

Energy and precious metals



PLUS: • SUPER STEEL – NEW AUSTENITIC STAINLESS
STEELS FOR ENERGY PRODUCTION • COMPOSITE IMAGE –
THE NORTHWEST COMPOSITES CENTRE • TERRIFIC TUBES
– 3D PLASMA COATING OF STENTS • FOCUS ON QUALITY
• PROFESSIONAL DEVELOPMENT – DIARY OF COURSES

Going for gold

Gold has long been a sanctuary for investors in times of uncertainty. Michael Forrest talks to Richard Holliday of the World Gold Council about current trends.

Historically, gold's inherent value and international acceptance has transcended national boundaries and allowed those with sufficient funds to avoid local economic conditions. In the modern era, gold's uses and forms have expanded beyond jewellery, coins and bars. It is now available to investors in the form of an exchange traded fund (ETF) on one of several stock markets around the world and is used as an industrial material. The widening of the gold market has contributed to strong growth in demand over recent years.

The latest figures in the World Gold Council's (WGC) quarterly report *Gold Demand Trends* show demand for gold was up four per cent in tonnage terms in the first quarter of 2007 compared to the same period in 2006. Richard Holliday, Head of Industrial Applications at WGC, comments, 'This has been a very encouraging quarter. After a 2006 dominated by price volatility, the more stable start to 2007 has clearly encouraged more active jewellery buying.'

All that glitters

Gold jewellery demand in the first quarter of 2007 was 572.8t compared with 488t in 2006. Nearly every country covered by the WGC review showed an increase in demand for gold in jewellery by value, which brought spending up to US\$12 billion, double that of 2003. This represents a 38% increase over 2006 and can be attributed to growth in Asia and the Middle East, where double-digit rises have been recorded.

India saw one of the largest increases in the demand for jewellery. Consumption there reached 211t, nearly matching the 217.3t record of 2001 and 50% up on 2006. Volatility delayed gold purchasers entering the 2007 market, but as prices stabilised in the range of Rs9,000-9,500/kg, well below the peaks of 2006, demand rose strongly. Some of this is attributed to forward buying of pieces for weddings. The booming economy provided the background to this demand, which started slowly but picked up in mid-January when the wedding season began. This quarter also

had more muharat days (auspicious days for weddings) than normal, together with Valentine's Day and Pushya Nakshatra, celebrated in west and parts of south India.

The demand for gold coins and bars also rose, possibly due to the general belief that gold prices are more likely to rise than fall, and because they offer a long-term, as well as a short-term, investment in a market stimulated by the higher number of coins offered by banks.

The second quarter of 2007 also started strongly, with increased buying for the festival of Akshaya Thritiya on 19-20 April, and is predicted to exceed the same period in 2006. The on-going strength of the rupee against the US dollar is also encouraging traders and jewellers to replenish their stocks.

Golden balls

China too saw strong growth in demand in the first quarter, 31% higher for jewellery, coins and bars (by weight) than early 2006. By value, the increase was 44%, tempered in relation to other countries by an appreciating yuan.

Peak demand coincided with the Chinese New Year in mid-February to mark the beginning of the year of the Golden Pig. Of particular note is the sale of 'lucky balls', weighing one to two grams for threading on red string for necklaces and bracelets. Demand remained high after the New Year and focused on traditional 24 carat gold. Hong Kong posted similar high demand, and many jewellers suffered a shortage of stock. The city's vibrant economy was boosted by tourists from mainland China who bought gold souvenirs.

In Japan and Taiwan, the interest in gold was subdued, with a net dishoarding of gold prominent in the former brought about by a weakening of the yen against the US dollar. This provided a profit-taking opportunity as the price of gold reached Y2,500 per gram, exceeding the peak dollar price in May 2006. Domestic fabrication declined in Japan, while imports from Italy rose. White gold and platinum are fashionable

in Japan, with the latter heavily promoted despite its price premium over gold. Overall demand was 8.2t for the quarter.

The Middle East, defined in the report as Saudi Arabia, Egypt and the Gulf States, reported an eight per cent rise in gold sales and a four per cent increase in coins and bars, a small market in a region known to focus on gifts. High US dollar oil prices and increasing tourism levels lifted demand, although the Arabia and Gulf currencies are linked directly to the US dollar and hence saw the maximum gold price increase. Last year's stock market collapse in Saudi Arabia reduced the net wealth of individuals and suppressed demand.

Europe and North America saw falls in the level of gold used in jewellery, bars and coins. In the USA, a five per cent drop in consumption by weight was noted, with the lower end of the market suffering most as the price of gold rose. At the upper end, consumption increased as lifestyle advertising promoted the value of yellow gold. Despite the fall, USA consumption was 54.2t – in third place behind India (147t) and China (68.4t). Italy is the largest consumer of gold in Europe, a reflection of its jewellery manufacturing industry. At 10t, its consumption is 25% higher than the UK and twice that of France.

Industry and investment

The remaining demand for gold (30%) is split between industrial uses and investment, of which bars and coins represent 13% of the total demand in the first quarter of 2007. Overall investment includes retail (coins and bars), ETFs and inferred investment (the difference between supply and demand balance).

Identifiable investment accounted for 147.1t or 18% of the total, including sales to and from central banks and similar institutions. Year on year this is down 26%, and is caused by a large decline in the demand for gold to back ETFs. Over the past few years, ETFs have enjoyed strong growth with a cumulative value now approaching 700t, however, the rate of increase has appeared to slow. On a month-by-month basis through the first quarter of 2007, there were wide fluctuations in investment, with a sharp shake-out at the end of February and a subsequent pull-back in March.

In the second quarter a further 12t were entered into ETFs, only to be reversed in part in May. New funds entered the market this year, tracking a number of indices and futures as well as gold itself. Underlying political and economic factors, such as the declining US dollar and inflation fears, remain broadly supportive of gold investment in its many forms.



Gold jewellery has grown in popularity this year

Some 400t of gold is used in industrial applications. The metal's resistance to oxidation is critical for use in electrical contacts. Gold is also made into wire connectors inside microchips. Around three quarters of 'industrial' gold is consumed by the electronics sector, and growth remains modest at one per cent year-on-year. A five-year high was registered in 2006 with electronics manufacturers in China and South Korea being the largest consumers.

Shiny and new

Emerging technologies that employ gold may offer an expanding industrial market. They are partly based on finely divided nano gold, where particle sizes are one billionth of a metre. In this state, gold displays different properties that are useful in industrial catalysts, electronics and biomedicine.

Nanostellar, a USA-based company, has developed a commercial catalyst for diesel engines that contains nano gold. Diesel catalysts are mainly platinum-based, a metal that is currently twice the price of gold. By combining platinum, palladium and gold, the company's 'NS Gold' catalyst reduces noxious emissions in light and heavy diesel engines by as much as 40%. Such engines display a fuel economy advantage over gasoline and some hybrid cars.

Holliday says, 'The development of a new gold nanotechnology product is very exciting. With the diesel automobile market continuing to grow strongly across the globe, we will watch this technology's development with great interest.'

There are numerous applications of nano gold in electronics. An example is in LCD displays in goods ranging from televisions to mobile phones and cameras. By using gold as nanorods inside liquid crystals, the brightness and view angle properties are dramatically improved. Solaris Nanosciences of Providence, Rhode Island, USA, is leading the development of this technology.

The first trials of Cytimmune Science's nano gold-based anti cancer drug began in 2006. The USA-based company is evaluating its safety and tumour-shrinking properties. In another direction, Maryland, USA-based Nanospectra Inc has developed gold nanoshells that are injected into tumours. These preferentially accumulate in tumours and are then heated by an infra-red laser, resulting in rapid destruction of the tumour. Trials have shown that the treatment is highly effective and the company is seeking US Food and Drug Administration approval to commence human trials.

Further information

For further information on the technical uses of gold, visit: www.utilisegold.com.

Dr Richard Holliday, Head of Industrial Applications, World Gold Council, 55 Old Broad Street, London, EC2M 1RX, UK. Tel: +44 (0)20 7826 4700.