

GOLD

By GFMS Ltd, London, UK

Gold performed remarkably well in 2003. By year-end, it had vaulted the US\$400/oz barrier, as a result gaining 21% on an intra-year basis. And the 2003 average at US\$363/oz was also up a solid 17%, meaning a second year of double-digit gains. The driving forces behind this performance were de-hedging (especially in the first half) and, above all, a surge in investment demand. However, looked at in other currencies, it is possible to come up with an alternative view of gold's performance last year; namely that (unlike 2001-02) the bull market was largely a dollar affair. In euro terms, above all, the price was broadly unchanged. For much of 2003, gold simply tracked the dollar:euro relationship. Of course, a more positive interpretation of this is that gold was performing very much like a currency – in this case one not linked to the devaluing dollar bloc.

Furthermore, it is quite possible that 2004 will see a breakdown of the triangular relationship between gold, the dollar and the euro. There are already indications in the first few months of this year that gold may move in a more independent direction. The key issue is whether this means it will start to rise again in all currencies, arguably the definition of a true bull market.

GFMS sees investors, if anything, increasing their commitment to gold and other alternative investments this year. By gold market standards, the around US\$10 billion net inflow of funds last year (GFMS' conservative estimate of the value of investment) was large, yet still a tiny number compared with flows in and out of cash, stocks and bonds. For once, gold seems well placed to capture some of the money that could exit the mainstream markets in anticipation of or, eventually, on a major setback to the US and world economies.

The new Central Bank Gold Agreement does increase the maximum annual sales level from its signatories from 400 t to 500 t. However, it will only have an impact from October and, more importantly, we are doubtful that sales will actually reach the maximum levels permitted. Furthermore, given the huge dollar holdings of some central banks outside Europe, we wonder if, at some point, the rest of the world could become a net buyer rather than a net seller of gold.

Scrap gold supply rose sharply in 2003 - a sign of the price sensitivity of high carat jewellery in the Middle East and Asia. However, scrap flows from these areas have already eased and the evidence is that far higher prices will now be needed to tease out substantial volumes.

Adaptation to higher prices could be more significant when it comes to the demand side of the equation. At the beginning of 2004, prices close to the

US\$400/oz mark were viewed as good buying levels by Asian consumers – something unthinkable 12 months earlier.

Finally, after much detailed analysis of the producer book, GFMS' view is that de-hedging could return as a more important source of demand this year, especially compared to the second part of 2003. (Table 1)

The increase in the gold price during 2003 was impressive on many accounts. The rise in the annual average, 17.3%, meant an acceleration in the rally from 2002's climb of 14.3%, and 2003's year-on-year gain was the greatest since 1987 when a jump of 21% was recorded (and a high of almost US\$500/oz reached). The intra-year rise in 2003 of 21.1% was a little down on 2002's 24.7% but it remained the second highest since 1979.

The picture remains impressive in many ways too, when we look at the absolute levels involved. The high for the year, US\$416.25/oz, for example, was last bettered as far back as February 1990 (though the am fix in February 1996 did in fact match this level). Furthermore, the annual average, US\$363.32/oz, was the highest since the US\$387.87/oz achieved in 1996.

There is, however, one important qualifier to the above bullishness, namely the degree to which last year's rally was just a dollar-based affair. Prices expressed in terms of most other currencies either saw smaller gains or, in a handful of important cases, declines. This was most marked for the rand but, of greater importance, were the euro price falling and the yen price gain ending up less than half the dollar price rise. That the rally did not always translate has led many to question whether the label 'a bull market' is truly appropriate for 2003.

Placing 2003 in an historical context also brings some sobriety to commentary. In the period 1980-1999, there were 13 years with higher annual averages on a nominal basis and this rises to 18 years on a real price basis. The 2003 figure also remained well below the real price average for 1968-2003 of US\$497.61/oz.

2003 will probably be remembered as the year in which investment, almost single-handedly, took prices by the scruff of the neck and thrust them higher. The degree to which it was acting alone is highlighted by an overview of the bare bones of the supply and demand balance. First, the other parts of demand – fabrication and de-hedging – fell (though the latter still provided valuable support at times when investment was flagging such as in the June quarter). This is a remarkable turnaround on recent years: 2000 saw heavy and 2001 light implied net disinvestments, and 2002 saw a surge in de-hedging that far outweighed nascent implied net investment. Second, all elements of supply rose in 2003 but, as detailed later, much (excluding mine output) was merely in response to the rally. A corollary of 2003's heavy dependence on one variable, investment, especially since this factor can often prove fickle, was higher price volatility.

Assessing the importance of investment is made difficult by its general lack of transparency. One might begin with those areas where harder data is available yet these can show a trend counter to the overall run. Bar hoarding, for example, a fair indicator of non-Western investment, fell by a substantial 27% or almost 70 t. This was largely a function of a lower figure in East Asia where hoarding is frequently negatively correlated to the price. The scale of the fall last year was made greater by the extreme level of hoarding in Japan in early 2002.

As noted earlier, the relative importance of de-hedging fell in 2003. At 310 t, it was not that far off a third the size of world investment (the sum of implied net investment, official coin fabrication and bar hoarding) at 888 t, whereas in 2002 these two were not dissimilar.

In some ways, it would be wrong to interpret the above too bearishly. One could become obsessed about the year-on-year drop but, in absolute terms, de-hedging's demand contribution in 2003 was its second highest ever.

The headline numbers for fabrication demand in some ways might be taken as bleak. Jewellery offtake in 2003 was at its lowest levels since 1991. However, what was critical was its inter-reaction with the price. Jewellery fabrication can be quite price elastic and so it is the scale of the change that is of interest. Statistics confirm that in the December quarter buyers in the particularly price sensitive areas, chiefly India and the Middle East, were no longer seeing prices over US\$380/oz as excessive or temporary, and that fabrication was holding up better than expected.

Turning to the supply side, it might come as some surprise that a strong rally could occur in the face of double-digit increases in the more volatile components, scrap and official-sector sales. However, a good portion of this overall supply increase came about in response to the price rise and therefore tended more to temper rather than derail the rally.

Supply in 2003 (Table 2)

South Africa

The world's largest gold producer, recorded a significant 5%, or roughly 19 t drop in output in 2003 to 376 t. The considerable decline was largely a result of operational difficulties, lower grades and the effects of a strengthening rand, which resulted in the suspension of mining activities at marginal production areas in the second half of the year.

Consolidation in the Free State continued in 2003 with the merger completed in September between Harmony and ARMgold. On an operational level, production at their combined South African assets declined by 8% year-on-year to reach 104 t. The only production gains were reported at the Free State operations, whereas lower production was reported from FreeGold (Bambanani, Tshepong, Joel and St. Helena, the latter acquired from Gold Fields in the December quarter of 2002), Randfontein (lower grades), Evander, Welkom/Orkney (scheduled reduced mining rates) and lastly at

Elandsdraal, where an underground fire at Elandsrand adversely affected operations.

As a result of the merger, Harmony replaced AngloGold as the country's largest domestic producer of gold. The gap between the two was, however, very narrow – AngloGold reported 102 t of gold output in 2003. In volume terms, the biggest losses were reported at Great Noligwa, where operational difficulties resulted in output being cut by 2 t, and at Ergo, which reported a similar fall in production, mainly caused by adverse weather conditions in the first half.

Gold Fields, the third-largest producer, generated almost 90 t of gold at its South African operations, Driefontein, Kloof and Beatrix. The figure represented a 7 t, or 7%, fall from the levels reported in the previous year. The bulk of the losses were attributable to Driefontein, where lower grades impacted volumes.

North America

Combined output from the US and Canada fell by close to 5%, or by just over 21 t compared with the previous year. Roughly two-thirds of the decline was attributable to losses in the US where output was cut back by nearly 14 t to 285 t, its lowest level since 1989.

Mine closures in 2002, including McLaughlin, Ruby Hill and McCoy/Cove, partly explained the year-on-year decline. In addition, lower production at Kennecott's Bingham Canyon copper-gold mine and Newmont's Nevada operations compounded the fall. Concerning the latter, the lower output was attributed to a combination of factors: lower grades, poor ground conditions at the Deep Post mine in the June quarter and lastly reduced mill throughput because of increased stripping in the final quarter of the year.

Higher production was reported at Placer Dome's Golden Sunlight mine where output more than doubled year-on-year, mainly due to a shift to higher-grade underground material. Production at the mine was suspended at the end of 2003 until mid-2005 when ore from the next phase of development at the mine is expected.

In Canada, the output decline in percentage terms was actually greater than that measured in the US. Production slipped year-on-year by over 5% to just over 140 t. Once again, mine closures were partly responsible for the drop. The suspension of mining at McWatter's Kiena mine in late September 2002, coupled with lower output at Mirimar's Con mine and Kinross' Lupin mine (both of which were closed in August last year), accounted for roughly 4 t of the total measured decline in the country.

Latin America

Peru, Latin America's largest producer, with output recorded at 172 t – a rise of 9% year-on-year – was largely responsible for the noted 2% growth in the region's mine production.

Remarkably, the significant increase was primarily due to a single operation. The Yanacocha mine (a joint venture between Newmont and Buenaventura), the continent's largest gold producer, achieved an output of 87 t, an increase from the previous year of close to 18 t. The outcome ranked the operation as the world's second-largest gold-producing mine (after Grasberg in Indonesia). The boost to annual production was, in part, a result of higher grades in the third quarter (due to the planned mining sequence) with average ore grades during the period 17% higher year-on-year. In addition, output at La Quinua (Yanacocha's fifth open pit commenced at the end of 2002) further boosted year-on-year production gains.

Brazil recorded another modest reduction in output last year to reach an estimated 43 t. Last year's decrease was (once again) due to a drop in output from the formal sector. The informal (largely alluvial) mining sector's contribution is estimated as unchanged year-on-year at just less than 14 t. The fact that higher gold prices did not encourage a significant change in *garimpeiro* activity is, in part, a result of the maturing economy. Employment has increasingly become formalised, whilst there has also been a migration of population from rural to urban centres.

Concerning the formal sector, the closure of the Igarape Bahia mine, together with the sale of the Fazenda Brasileiro mine, effectively signalled the exit of their owner Companhia Vale do Rio Doce (CVRD) from the gold-mining business, and was mainly responsible for the 10% drop in output from this category.

In Chile, gold production decreased by less than 1 t to 38 t. Higher output at Escondida and a modest 4% rise at Placer Dome's La Coipa operation, which produced just over 6 t in 2003, was not sufficient to offset reductions at, amongst others, Meridian's El Peñón (down 2% year-on-year) and at Refugio. Concerning the latter, higher gold prices prompted joint owners, Bema Gold and Kinross, to reassess the property and, at the end of 2003, it was announced that the mine would be put back into production. Output at the mine in 2005 is expected to be 6-7 t.

Australia

Mine production grew strongly in Australia in 2003 to reach almost 284 t. The close to 18 t rise in output followed five straight years of falling production, which averaged 10 t/y. A handful of new mines that had commenced operations in the December quarter of 2002 accounted for a large part of the year-on-year increase. Combined output at LionOre's Thunderbox, Equigold's Kirkalocka, Troy Resources/Sons of Gwalia's Cornishman and Dominion's Challenger added 12 t to the country's production in 2003.

In addition, higher production at Newcrest's Ridgeway mine, which was officially opened on April 19, 2002, further contributed to the rise. The mine was fully commissioned in the June quarter 2002 and last year reported production at just over 14 t, almost double the level from the previous year. The Barrick/Newmont joint venture, Super Pit, also reported a significant improvement in output.

China

Chinese gold-mine production is estimated to have risen by a significant 11 t year-on-year, or by just over 5%. The strong growth represented the fourth consecutive annual increase in output, which took production to 213 t, and cemented China's position as the world's fourth-largest producer. Notwithstanding the difficulties associated with estimating genuine (as opposed to announced) mine production in the country, the availability of statistical data in China has improved.

On a company basis, China Gold Group is reported to be the biggest producer, with 2002 output at just over 20 t. As a whole, the companies generated over 60 t of gold, or 31% of the country's annual production.

As regards to the Shanghai Gold Exchange, which started operation at the end of 2002, the volume of mine production sold through the exchange, to date, has been lower than anticipated. It is thought that a part of the explanation relates to producers trying to avoid paying VAT and other taxes.

CIS

Combined output from the Commonwealth of Independent States (CIS) was unchanged year-on-year at just over 307 t. In Russia, (the region's largest producer accounting for roughly 60% of the total), output rose by a modest 1%, or by almost 2 t, to reach 182 t. The increase fell significantly short of the average 9% annual growth measured in the preceding period from 1999 to 2002.

On a regional level, Krasnoyarsk generated just over 30 t of gold (replacing long time leader Magadan as the country's biggest gold-producing territory). Ranked in second and third position, Magadan and Yakutia produced 26 t and 20 t respectively. A part of the losses in Magadan can be attributed to lower output at Kinross' Kubaka operation, where open-pit mining was completed at the end of 2002.

In 2003, the state-run mining sector in Uzbekistan underwent some significant restructuring. First, Kyzylkumredmetzoloto, the holding company of Navoi Mining and Metals Co (operator of the giant Muruntau mine) and Uzolomosoltin (which manages five smaller state-owned mines and some diamond interests) were liquidated. The production units were subsequently divided between Navoi Mining (four mines) and Almalyk (three mines). In turn, these units were placed under the management of the ministry, the Agency for Precious Metals.

At an operational level, production at Muruntau (including gold recovered from the mine's tailings) is estimated to have declined by over 4 t, or by 6%, to 67 t. The decline was partly offset by higher output from the Almalyk mining units, to leave the country's full-year production down by 4% year-on-year at 80 t.

In Kyrgyzstan, higher production at Kumtor, which accounts for over 90% of the country's total, explained the sharp 27% increase in output to roughly 23 t.

The reported gains at the mine, however, merely signalled a return to normal operations. In 2002, production was adversely affected by a pit-wall failure, which limited access to richer ore grades.

Indonesia

Over 70% of Indonesia's gold production (which totalled just under 163 t in 2003) is generated as a by-product of copper mining at Grasberg and Batu Hijau, both of which reported higher production year-on-year. Grasberg, the world's largest gold-producing mine, yielded 98 t last year, an 8% or roughly 7 t rise compared with the previous year. The gains were entirely a feature of the first half, as operational difficulties in the December quarter impacted on output. As a result of these difficulties, production in 2004 is now expected to fall short by over 20 t from previously forecast levels.

Production costs

Higher cash costs were reported across all of the major producing regions in 2003. The cost of producing an ounce of gold in 2003 was some US\$42, or 23%, higher than the 2002 cost levels, taking the weighted average to US\$222/oz. The rise in US dollar terms was primarily due to currency effects, although higher global energy charges and higher royalties and production taxes (which are linked to the price of gold) also contributed to last year's significant cost inflation.

The rising cost of labour was a significant issue last year, no more so than in South Africa, where the workforce charge is reported to make up over 50% of the industry's total cash costs. Indeed, following the conclusion of the biennial wage negotiations with the National Union of Mine Workers, a 10% increase was agreed in the 2003-04 financial year, and costs related to this rise were reflected in the higher costs reported in the 2003 September and December quarters. AIDS also has been a concern for some time in South Africa, with reports suggesting that 25% to 30% of the country's mineworkers are infected with the virus. Finally, as regards currency fluctuations, the change in valuation of the rand also had a significant impact on costs in 2003.

Currency effects, although not as dramatic, also played an important role in the cost inflation measured in Australia. The domestic dollar appreciated 16% against the US dollar whilst the Australian dollar gold price sank from an average of A\$570/oz in 2002 to reach A\$559/oz in 2003, a 2% decline year-on-year. As a result, and in spite of the 1% decline in average domestic cash costs, the drop in the gold price left cash margins down 4% compared with the previous year. Looking at Australian cash costs in US dollar terms, these rose by US\$35 to reach US\$223/oz.

In Canada, the local dollar appreciated 11% against the greenback. In contrast to events in South Africa and Australia, however, the underlying move in the exchange rate did not completely erode the gains in the US dollar gold price. Indeed, the price in domestic terms actually increased 5% from the previous year to reach C\$509/oz. Combined with the 2% rise in domestic cash costs, cash margins in the country widened 9% to C\$218/oz. As measured in US dollar terms, costs in the country were up 14% year-on-year

to US\$208/oz. Despite the increase, Canada was the lowest-cost producer amongst the 'big four'.

The benefit of the (dollar) gold-price rally was, of course, fully realised by producers in the US. Whereas cash costs in the country increased by a modest 5%, the 17% increase in the gold price left margins US\$44/oz, or 42%, higher year-on-year at US\$147/oz.

Producer hedging

The delta-adjusted producer hedge book contracted by a significant 13%, or by 310 t in 2003. Whilst the decline represented a drop from the levels of de-hedging measured in the previous year, the demand that it generated was still an important factor behind last year's price rally. Indeed, considering that 83% of total de-hedging was completed in the first half of the year, it was arguably the dominant factor supporting higher prices in the six months to June.

Broadly speaking, de-hedging last year was supported by two producer groups. On the one hand, the group of non-hedgers, which had inherited hedge books as a result of mergers and acquisitions, continued to reduce cover aggressively through a combination of buy-backs and by delivering into scheduled contracts. On the other, well-hedged producers revised hedging limits and set targets to bring their hedge cover in line with the adjustments. Again the reduction was, in the main, achieved through scheduled delivery and buy-backs, although book restructuring was also a factor.

The sustained price rally (prices have built steadily from the low reported in April 2001 of US\$255.95/oz) has been the key factor behind the reduction in hedge cover. After all, miners typically hedge future gold output for one of two reasons. First, producers can secure a forward premium on advanced sales in the form of the gold price contango. Second, and more for defensive purposes, hedging is done to protect revenues against falling gold prices. With the contango sharply eroded and expectations for higher prices, it is hardly surprising that producers are unwinding hedge cover.

Despite the narrow premiums and the rising gold price, there was some new hedging. In a couple of instances, producers added volumes of forwards or bought puts to their books but, in the main, the bulk of the fresh hedging was completed as a requirement for project financing.

New hedging for project development was estimated at roughly 112 t. The largest position put in place last year was Australian-based Newcrest Mining's 75 t hedge, which was part of the financing requirements for the 25 t/y Telfer project. The mine is expected to be commissioned in the September quarter of this year and will reach full capacity in 2005.

An important part of the total reduction in the hedge book in 2003 was the result of producers buying back positions. Some of the largest transactions were completed by, amongst others, Newmont, Harmony, Sons of Gwalia, WMC and Cambior. Newmont accounted for a remarkable 26% of the total reduction in the delta-adjusted hedge book. The company inherited the Australian-based Normandy hedge book following the successful three-way

merger with Franco Nevada, which was finalised in February 2002. Since then, the group has been aggressively reducing the book.

Book restructuring was also an important part of producer activity during 2003, and there was one recurring theme - to simplify positions. Barrick, for example, simplified its hedge book in the second quarter by converting its "variable price sales and option contracts" into forward sales. This move, coupled with a further 19 t reduction in contracts in the December quarter, left the overall position roughly 55 t lower year-on-year, representing 18% of the total decline in the global adjusted hedge book.

The ongoing de-hedging and book restructuring designed to simplify hedge positions appears to have already impacted the make-up of the global hedge book in 2003. The forwards' share of the total book increased from 59%, as measured at end-2002, to 61% at end-2003. The share of vanilla options (simple calls and puts), meanwhile, was scaled back from 35% to 34%, and non-vanilla products were cut back from 6% to 5% of the global hedge book (in nominal terms).

Scrap

Scrap's contribution to world gold supply in 2003 rose by almost 13%, to reach a five-year high of 943 t. This increase (making scrap almost 23% of total supply, again a five-year high) was mainly due to large rises in India and East Asia, as well as smaller gains in most other parts of the world. The rise in supply from scrap was mainly driven by the rally in the price of the yellow metal. Other, factors were, however, also in play, mainly related to local economic conditions.

Official sector

GFMS' estimates for official sector sales (and purchases) show that net sales from official sources reached no less than 606 t in 2003. This is the highest annual total recorded since the 622 t seen in 1992. It also comfortably exceeds the average level for net annual sales over the 1994-2003 period, of 390 t.

Net official sector sales accounted for just under 15% of gold supply last year compared with a little less than 14% in 2002. Even though the 61 t increase in sales in 2003 had no obvious impact on gold prices, it would be naive not to recognise the negative effect the step up in official sales has had on prices in recent years. For instance, if in the unlikely event that supply to the market had returned to its 1994 level – a mere 130 t of net sales or 4% of total supply – there is little doubt that gold prices would have enjoyed an even stronger appreciation than was actually the case last year. What this example illustrates is that net sales from the official sector continue to have a major influence on gold prices, even if the market's concerns focus has tended to be more on other supply/demand variables, especially in the wake of the first Central Bank Gold Agreement (CBGA).

The forthcoming expiry in September this year of the CBGA, and the announcement that it will be extended for a further five-year period, has led to

a renewed focus on the issue of official sector gold holdings. According to IMF statistics, the official sector collectively held around 31,822 t of gold at end-2003. These stocks represent a massive source of potential supply, were they to be mobilised, either through outright sales or through gold loans to the market. GFMS data show that the quantity of bullion out on loan peaked in 1999 at around 4,750 t, since when the total has declined each year, to reach approximately 3,960 t at the end of 2003.

The combined supply of gold to the market from net sales, plus the annual change in official lending, has shown a tendency to decline in the past few years. For example, in 1999 a rapid increase in lending (related in large measure to the surge in producer hedging that year), plus heavy net official sales, resulted in over 850 t of central bank bullion coming on to the market. Last year, however, the combined figure had, by comparison, slumped to a little under 300 t – the 606 t of outright sales being partly offset by a close to 300 t reduction in the quantity of official bullion lent to the market. GFMS argues that the decline in total official sector supply (net sales plus the change in lending) since the end of the 1990s must have played some part in the improvement in gold prices over the intervening period.

Demand in 2003

Jewellery fabrication

Global jewellery fabrication in 2003 fell by 5.5% to 2,533 t, a 12-year low. This was mainly driven by reduced demand in Italy, but also by weaker demand across the Arabic Middle East and East Asia. The fall was dampened by increases in offtake in India and, more so, in Turkey.

Jewellery fabrication in Europe slumped by over 100 t in 2003, mainly due to Italy's 20% drop. 2003 was one of the most difficult years ever for the Italian industry, with demand estimated to have slumped by 20.5% to 328.8 tonnes (or around 60% of its 1998 peak). The decline was marked, as an intensification of structural influences (such as competition from rival producers) coincided with one-off factors (such as the Iraq war). This largely explains the acceleration in recent years' falls; 2000 dropped by 0.3%, 2001 by 6% and 2002 by 13%.

In the US, the strength of December quarter jewellery retail sales (although largely unexpected given the weakness of demand in the preceding months) provided a significant boost to the retail and manufacturing trade. As a result, jewellery fabrication in the country fell by 'only' 7% in 2003, after being down by over 10% over the first nine months of the year.

Indian jewellery fabrication in 2003 rose by 2.5% year-on-year, in spite of the high gold price, due to the rapid adjustment of consumers' price expectations and robust economic growth fuelled in part by a good monsoon. However, because of a sharp rise in jewellery scrap, 'new' gold consumption was effectively flat year-on-year. Two main forces affected fabrication for domestic consumption in India during the year. First, offtake was constrained throughout the year by the high gold price. Second, the robust performance

of, in particular, the agricultural sector, worked to counteract the impact of higher prices.

Total jewellery fabrication in the Middle East rose by over 6% in 2003 but only one country, Turkey, actually recorded year-on-year growth, with others essentially flat or down year-on-year. Turkish jewellery offtake grew by a staggering 67 t (45%), making it the third-largest jewellery fabricating country globally, after India and Italy. In reaching 213 t, Turkey also notched up a record level for its jewellery manufacturing. The reason for Turkey's astonishing performance lies mainly in the local market, which now appears to have emerged from a difficult period in its recent history. The earthquakes of 1999 were shortly followed by the economic and financial crisis of late 2000 and 2001. A period of consolidation in 2002 was followed up with a significant improvement last year as the realisation dawned that the recovery was firmly entrenched.

Jewellery offtake in China, the world's fourth-largest fabricator, rose only very modestly, by just over 2%. At first sight this is perplexing, especially when viewed in the light of China's robust economic performance in 2003. These range from a rigid distribution network (a legacy of tight state controls on gold which were only relaxed recently) to rising competition from other consumer products, both directly (for example platinum jewellery) and indirectly (for example mobile phones and other consumer durables). Yet another key reason, for the relative stagnation in offtake since 1999, is that economic growth has not been evenly distributed across China, which has developed a two-speed economy, the fast-growing urban/coastal areas and the slower-growing rural and western areas.

One of the hardest-hit markets in 2003 in terms of new gold demand was Indonesia. Jewellery fabrication demand fell 15% year-on-year to 84 t. However, when taking into account the sharp rise in supply from scrap, jewellery manufacturing excluding such secondary metal dropped from 78 t in 2002 to just 42 t last year. Supplies of new bullion to Indonesia from the international market, mainly via Singapore, last year fell to only one third of the level recorded in 2002 because of the increase in local supply from scrap and unofficial mining.

Other fabrication demand

After two years of little change in volume, gold use in electronics rose by 14% in 2003, reflecting strong growth across all applications. The rebound in electronics demand last year was perhaps confirmation that the long-term growth trend for electronic products has now resumed after the overhang of the dotcom bubble of the 1990s. Demand for gold bonding wire (GBW) and plating solutions, which constitute the bulk of gold use in electronics, was driven by the pickup in end-consumer demand for the latest models of products, ranging from DVD players, video mobile phones and even personal computers. Importantly, demand from the corporate sector has also signalled a return of increased IT spending by industry.

Dental demand for gold fell slightly year-on-year, with the top five fabricating countries all reporting lower production in 2003. Specifically, demand in Japan fell marginally, mainly on the back of lower Kinpara 12 production, in the US due to migration to both higher palladium alloys and non-precious metal containing materials, and in Germany (and many other European countries) as a result of the ongoing shift to non-precious metal alloys on price grounds, and to full or part ceramics on cosmetic grounds.

Low jari production in India, combined with weaker production across much of Europe, contributed to the 2% fall in world fabrication in other industrial and decorative uses.

Higher Turkish coin fabrication was behind much of the 9% rise in world official coin fabrication, which has now risen for the past three years. The 56% rise translated into an additional 17 t of gold. Elsewhere, US coin fabrication was more than 4 t higher in 2003. In general, aside from Turkey, bullion coin minting remained at a modest level, new retail investment being broadly satisfied by a high level of disinvestment.

Investment and bar hoarding

Investment demand was the driving force behind the rally in the gold price last year. The combined net demand from implied net investment, bar hoarding and coin sales amounted to no less than 888 t in 2003. This represented an additional 420 t on the figure recorded in 2002.

The investment share of total gold demand in 2003 also rose spectacularly, to 21%, compared with 12% in the previous year. (It is interesting to compare this change with de-hedging, where the contribution to demand dropped from 11% in 2002 to just over 7% in 2003.) The nominal dollar value of world investment came to at least US\$10.4 billion in 2003 versus around US\$4.7 billion in 2002. (Note that these sums are arrived at by simply multiplying the net figure in each year by the annual average price, which tends to understate the true level of demand, for example in 2003, when much of the buying took place at well above annual average prices.) Whatever the precise dollar value, for the gold market there was clearly a sufficiently large inflow of 'new money' comfortably to offset weaker fabrication demand and to push prices significantly higher.

Much of the investment demand in 2003 came from institutional buyers, mainly hedge funds and commodity trading advisors, taking an interest in gold, chiefly through over-the-counter paper products and on Comex. In contrast, the involvement of other institutions, such as pension or mutual funds, remained patchy. High net worth individuals' purchases were also limited though there were newsworthy signs of an increase in this sphere. Western retail investment also saw points of growth but the totals reached were not substantial.

Bar hoarding demand fell by 27% year-on-year to 182.5 t, largely due to two factors: higher gold prices and a slump in Japanese hoarding from 2002's exceptionally high level.

Bar hoarding in India rose year-on-year. The fact that any growth at all took place in the face of the high gold price was significant and has been interpreted in certain quarters as a reflection of a secular shift away from gold jewellery to bar as an investment tool.

Japanese hoarding fell sharply year-on-year, a not altogether unexpected result considering the surge in activity seen in the first half of 2002. There was concentrated selling back on price spikes, especially in the first quarter, and gross selling back was around half the volume of gross purchases over the entire first half of the year, with dealers reporting good two-way business. Without doubt a key factor undermining offtake was the price, which at one stage pushed above 1,450 yen per gramme, a level not seen since 1992. Also, the September quarter witnessed relatively small net sales, although gross volumes of sales and purchases were high. The price dip in October saw a surge in offtake in the December quarter, driving net volumes up by over 140% quarter-on-quarter.

Table 1 Gold supply and demand

	2002	2003
Supply		
Mine production	2,590	2,593
Official sector sales	545	606
Old gold scrap	836	943
Total Supply	3,972	4,142
Demand		
Fabrication		
Jewellery	2,680	2,533
Other	482	516
Total Fabrication	3,163	3,049
Bar hoarding	250	183
Net producer de-hedging	437	310
Implied net investment	122	600
Total Demand	3,972	4,142

Table 2 next page.

Table 2 Top 20 producing countries (t)

	2002	2003
South Africa	395	376
US	299	285
Australia	266	284
China	202	213
Russia	181	182
Peru	157	172
Indonesia	158	163
Canada	148	141
Uzbekistan	84	80
Ghana	70	70
Papua New Guinea	65	69
Mali	56	47
Tanzania	39	45
Brazil	46	43
Chile	39	38
Philippines	33	34
Argentina	33	29
Kyrgyzstan	18	23
Mexico	23	22
Colombia	20	21
Rest of World	260	259
TOTAL	2,590	2,593

This extract is taken from Gold Survey 2004
 Contact GFMS for further information. Tel: +44 (0)20 7478 1750. Fax: +44 (0)
 20 7478 1779. E-mail: gold@gfms.co.uk Website: www.gfms.co.uk

Whilst every effort has been made to ensure the accuracy of the information in this document, GFMS Ltd cannot guarantee such accuracy. Furthermore, the material contained herewith has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient or organisation. It is published solely for informational purposes and is not to be construed as a solicitation or an offer to buy or sell any commodities, securities or related financial instruments. No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained herein. GFMS Ltd does not accept responsibility for any losses or damages arising directly, or indirectly, from the use of this document.



THE ONE STOP SHOP FOR YOUR PRECIOUS & BASE METALS CONSULTING NEEDS

GFMS is the world's foremost precious metals consultancy, specialising in research into the global gold, silver, platinum and palladium markets.

GFMS has recently established 2 new sister companies, **GFMS Metals Consulting** and **GFMS Mining & Exploration Consulting**, in order to address the increasing need for independent and tailored research and consultancy in the base metals and mining and exploration fields.

For information on how the GFMS Group can assist you, please contact us.

GFMS Group of companies:

Precious Metals

www.gfms.co.uk
info@gfms.co.uk

Base Metals

www.gfms-metalsconsulting.com
info@gfms-metalsconsulting.com

Mining & Exploration

www.gfmsmining.com
info@gfmsmining.com

GFMS Limited

Hedges House, 153-155 Regent Street, London, W1B 4JE, United Kingdom
Tel: +44 (0)20 7478 1777 • Fax: +44 (0)20 7478 1779