

Gold Research

A collaboration between
WestLB GFM – GEC
and
Virtual Metals

June 2002

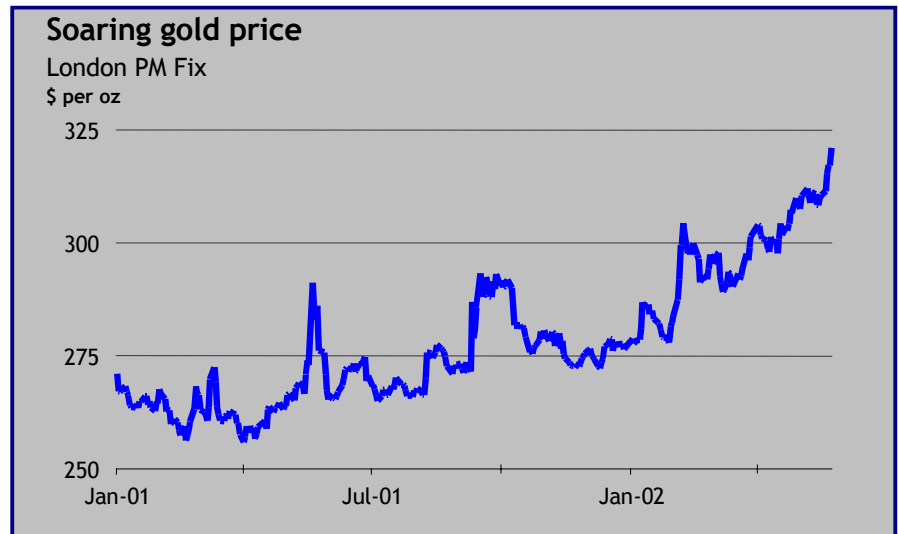
Gold, Energy & Commodities (GEC): Precious Metals Insight

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WestLB June

At the end of May 2001 the gold price was \$267.50 and looked as though it might well have trouble breaking above the \$270 level¹.



Source: Virtual Metals

Investor sentiment was an embarrassing contradiction in terms at best, but in the main was painfully conspicuous by its absence. The media, if they actually gave gold the time of day, filled their columns with gloom and doom, dismissing it with negative throwaway lines. Then the price began to appreciate, almost imperceptibly at first, but since the turn of the year with increasing momentum and vigour. This move has culminated in the month of May 2002 being marked by renewed gold optimism on a scale not seen in the market for years. Suddenly the press are calling on an hourly not daily basis. Is this the real thing, they ask? This time, is it different? What has caused this rally in the price, surely it must be the tensions between India and Pakistan or the deteriorating situation in the Middle East or the weaker dollar?

The media's appetite for a single, all encompassing explanation that neatly fits everything and gives journalists the tidy headline they need, often frustrates us. We all know that things are not quite so simplistic. A market is a complex web of interactions and responses to both internal and external factors, all influencing the market at different times and with different degrees of impact. Factors often offset each other, neutralising their respective potential influences. At other times, however, they reinforce each other, jointly exacerbating their individual influences and

Global Head: Marc Wall
GEC – GFM
Westdeutsche Landesbank
Girozentrale
tel. +44 (0)20 7020 3923

¹ Virtual Metals' Data Bases

working in tandem to influence prices.

But since the question has been put to us, we will endeavour to answer it. Is it different this time? Well, we believe that it is, but this is not to say that we have \$850 or even \$400 in our sights. That now infamous \$852 price level is regrettably remembered for the wrong reasons. Seen as the zenith of what a gold market should be, people forget it was the overblown cusp of a unique bull run, and that it was instrumental in the subsequent disruption of metal flows that precipitated the two decade bear market for which we have all paid dearly. The last mood that those price levels should be remembered with is one of nostalgic affection!

So why is it different? Our reasoning reflects on that bear market and looks at how those lower prices have worked, over a period of time, to alter dramatically the internal dynamics of the gold market. The supply side has responded exactly in the way it should. Exploration expenditure on gold has declined very sharply over the past five years.

ANNUAL GOLD EXPLORATION	MILLION US\$
1997	3,600
1998	2,350
1999	1,665
2000	1,400
2001	1,200e

DATA SOURCE: 1997-2000 Raw Materials Group, 2001 Virtual Metals estimate

Thus reserve bases are not being generically replaced as fast as they are being depleted. If individual companies have added to their reserves it has mainly been via acquisition and market consolidation rather than through exploration successes. Furthermore, production profiles have adjusted and future primary output is on the decline; according to some (Beacon Group) by a steep consideration magnitude. The contraction of the physical side of the mining industry inevitably has implications for the derivatives market. Less production means less hedging. Stagnant or declining reserve bases imply less latitude in the ability to negotiate credit lines to hedge. Less exploration and new mine development means a reduced requirement for the capital financing which historically the commercial banks would not have granted anyway without the backing of a hedge programme.

What we are trying to point out is that it took years for the market to adjust to these more robust levels. The tensions between India and Pakistan might well have contributed to the recent upward pressure on the gold price. But for the price to maintain its momentum, the internal dynamics of the market had to be right. This rally is the culmination of a number of developments, many of which have been long in their gestation. This editorial has but touched on some of those issues in a response to the rather simplistic questions put to us by the media. We have long recognised that it is myopic to analyse the gold price merely in US Dollar terms. The gold price expressed in the currencies of both producers and consumers is just as, if not more important, and in this month's commentary we turn our attention to these indices. As you will see, they reveal substantially more about the internal dynamics of the gold market.

WESTLB JUNE NEWSLETTER

Gold: A Currency Perspective

We all know the age old adage – while viewing the same doughnut the pessimists see the hole in the middle while the optimists eye the cake. We add another dimension to this and ask what are these people looking at? A chocolate covered doughnut or a jam filled one?

Gold in Rand – a bear run?

For example, to a South African investor it may seem that gold has recently entered a bear market; when measured in rand the price of bullion is down 4.4% in the first five months of this year². That's a far cry from those fantastic years between 1999 and 2001 when the local-currency bullion price rose year in, year out, culminating in a whopping 62.3% increase during 2001.

Gold is not a story in all currencies

This may seem a little puzzling to those who can remember the last few years in the gold market. Surely 2000 and 2001 were the years of central bank disposals, mining company forward sales, non-existent investment demand – and that was just the good news. Hasn't the news been all positive this year - with hedges being bought back, the Japanese pouring their life savings into the safety of gold, a flight from equity markets and so on?

Gold in US\$-star performer

Certainly that is true if you look at the US\$ price of gold, the standard measure. As the table shows, in 1999 it fell by 0.4%, in 2000 by 5.3% and in 2001 it managed a small increase of 2.4%. But this year already it is up by a whopping 17.4%.

Gold price in other currencies – a mixed bag

But these have been the years when the US currency could do no wrong. If you look at the price in other currencies a different story emerges. The most obvious has been the Rand gold price, where the lack of international confidence in South Africa's plunging currency, at least until this year, meant a soaring local gold price. However it is not just the rand that has fallen against the mighty dollar, but most other currencies. The euro's weakness since its launch has received lots of publicity, and has meant the gold price in euros has risen for the past four years consecutively. Interestingly the rupee, traditionally viewed as a weak currency, has only fallen slightly against the dollar, and so gold's performance in rupees has been disappointing until this year.

Nominal returns on gold						
	US\$	Aus\$	Euro	Rupee	Yen	Rand
1999	-0.4%	-7.1%	16.2%	2.0%	-9.9%	4.2%
2000	-5.3%	11.8%	1.4%	1.6%	6.0%	16.4%
2001	2.4%	11.3%	8.0%	5.8%	17.3%	62.3%
2002	17.4%	5.7%	11.4%	19.0%	10.8%	-4.6%
Total	13.3%	22.2%	41.8%	30.5%	24.1%	87.1%

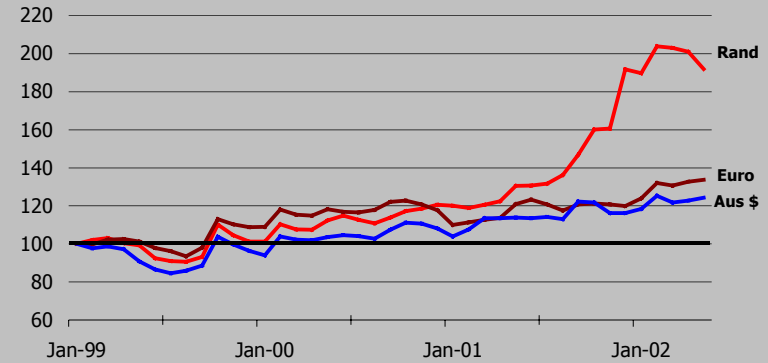
Source: VM own calculations

[Home](#) ² All data referring to 2002 is as of May 31st 2002.

Happy South Africans

Gold price, monthly average, in Rand, Euro and Aus\$

Jan 99 = 100



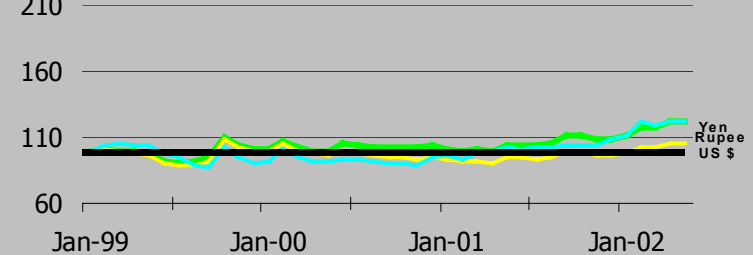
Source: VM own calculations from IMF data.

Getting stronger elsewhere

Gold price, monthly average, in Yen, Rupee and US\$

Jan 99 =

100



Source: VM own calculations from IMF data.

Gold and non-\$US hedging mismatches can be problematic

Very interesting, you might say, but is there any point to such analysis? Obviously it matters for producers. Much of their costs are in local currency and so their profit margins depend to a great deal on the gold price in local currency price, not in dollars. South African and Australian mining companies have enjoyed the last couple of years. But for many extensively hedged miners, incurring costs in local currencies and earning in US Dollars has proved to be double-edged sword. All too often it has been the currency leg of a hedge book that has caused the headaches rather than the gold.

It also matters for consumers and investors. The gold dealers and their customers in Mumbai are infinitely more concerned with the local gold price, measured in rupees, than they are in the dollar gold price. Japanese savers want to know what return they will get in yen, not dollars.

Sharp gold moves in non-\$US currency misleads

Yet there are limits to the usefulness of looking at gold's performance in other currencies. Gold bugs should not, for example, take much comfort from the bull market that consistently happens in Turkish lira, which has fallen so fast that an ounce of gold is worth nearly three times more than it was in 1999.

For a start weak currencies often reflect local price inflation. South African miners' costs typically rise faster than their American counterparts because South African inflation – and therefore the increase in wages and other

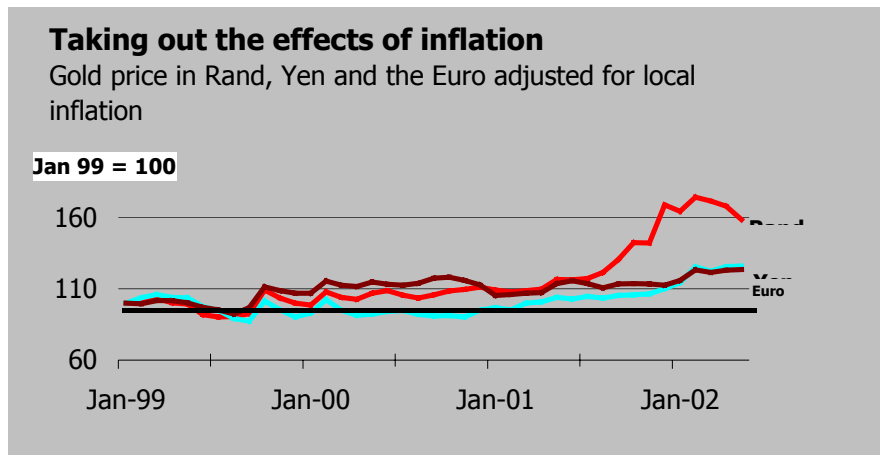
input costs – is higher than in the United States. And at the moment, with local price indices in the double digits, prices of all goods in South Africa are very much under pressure.

“real” vs. “nominal” Gold returns

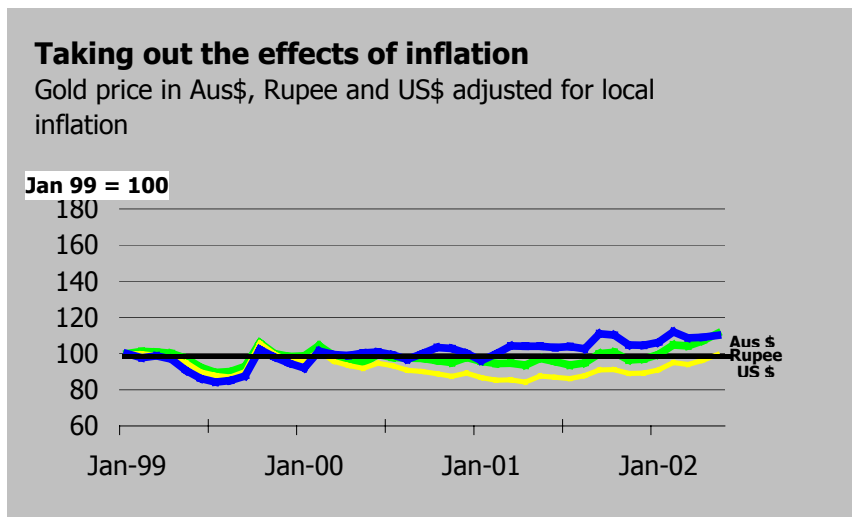
As the table shows for most currencies the positive level of inflation means the *real* price of gold, i.e. taking into account inflation, is lower than the *nominal* price.

Real returns on gold						
	US\$	Aus\$	Euro	Rupee	Yen	Rand
1999	-2.7%	-8.6%	14.5%	1.6%	-9.3%	2.0%
2000	-8.7%	6.0%	-1.2%	-1.9%	6.4%	9.4%
2001	0.8%	8.2%	5.9%	0.6%	18.5%	57.7%
2002	15.6%	4.4%	10.3%	17.7%	11.5%	-9.8%
Total	3.5%	9.4%	32.2%	16.3%	27.4%	58.6%

Source: VM own calculations



Source: VM own calculations from IMF data and national statistical organisations



Source: VM own calculations from IMF data and national statistical organisations

In South Africa the price increases of 87% between 1999 and today falls to only 59% when the effects of inflation are taken into account. Measured in US\$ the real price of gold has been flat. Yet as currency forecasters know to their cost, a weak currency doesn't always have the excuse of high inflation. The yen has plummeted despite falling prices in Japan, which

means real returns on gold have actually been higher than nominal returns, at 27.4% compared with 24.1%. This explains a lot about the recent investment buying from that country.

Gold's true advantage – global accessibility to investors

Second, when comparing gold as an investment to other financial alternatives it makes sense to look at local returns. But if you are comparing it to other investments denominated in dollars then the currency effects are going to be the same and will cancel out. Due to currency movements gold may have offered good returns to Japanese investors but then so have US Treasury bonds, or US shares or US anything. Gold only offers an advantage when it is difficult for investors or savers to access foreign currency denominated alternatives, such as in India, where it is far easier to buy a gold bar than it is to buy a share of the Nasdaq.

US\$/Gold prevailing benchmark

Inevitably whatever the merits in taking a broader-based look at the gold price, the US\$ price will continue to be the one that everyone talks about, and in this context it is positive that the soaring dollar gold price of recent months has not required a plunging dollar. If the greenback were to weaken substantially – and there were signs during May that its long run of strength may be drawing to a close – one would hope for further gold price gains.



WestLB Interview

By **With Stewart Murray, Chief Executive of the London Bullion Market Association**

How does a boy who dreams of joining an engineering firm near his home city of Glasgow end up being in charge of the gold market's premier trade association? The circuitous route that took Stewart Murray from his first degree in metallurgy as an external student of London University, (studying at Paisley College of Technology, down the road from Glasgow), to the boss's desk at the London Bullion Market Association, had its origins in an early fascination with metals, their composition and qualities. His whole professional life has been spent in the world of metals. He picked up a doctorate from Imperial College in the early 1970s, where he spent many hours poring over the structure and mechanical properties of titanium-hydrogen alloys before going on to do post-doctoral research in the fracture of steel.

In 1974 he decided he'd had enough of academia and joined the International Wrought Copper Council in London, becoming secretary-general of the organisation in 1980. "I little thought that, 25 or so years on, I'd be once again in charge of running a metals' trade association, although thanks to computers we at the LBMA do much more work with far fewer staff than were at the Copper Council," says Murray.

After five years at the helm of the IWCC Murray hankered for something which might lead to some more exotic international experience. He joined Consolidated Goldfields, "initially on the base metals' side, but I had already become very interested in gold because, after all, in the early 1980s gold was going through an extremely interesting phase," he says. For him, ConsGold provided a perfect mix of being a large international mining business with a focus on research.

Following the famous takeover battle between Minorco and ConsGold in 1989, he was expecting to be made redundant along with all the other staff when the company was subsequently sold to Hanson. "But fortunately Gold Fields of South Africa managed to secure their independence from Hanson and decided that they wanted to ensure the survival of the CGF annual gold survey. I was asked to set up Gold Fields Mineral Services in mid-1989, when we started with what I might immodestly suggest was a very strong team, with Philip Klapwijk, Tony Sutton-Pratt and Kevin Crisp, along with assistance of an excellent team of consultants and in particular Tim Green, who had been there right from the start of the Gold Survey, in 1968. Our new team were all very enthusiastic and hard working and it was hugely enjoyable," says Murray.

But by 1998, when the management buy-out of GFMS was taking place, Murray was looking for a change. He remained for a while an independent consultant in gold and silver, working in part for the newly-independent GFMS. "But when I heard that my predecessor at the LBMA, Chris Elston, was retiring, I was immediately interested in going back into full-time employment. The LBMA was already embarked on a process of change having just introduced some major amendments to its Constitution and it was obvious that the re-vamped role of the Chief Executive was going to offer some real challenges." Appointed to the post in September 1999, Murray says that the "most exciting thing about this job is that the LBMA is

continually working towards widening its horizons. With the previous chairman, Peter Fava, and now Martin Stokes, the current chairman, the place has been constantly buzzing with ideas. The two biggest developments at the LBMA since my arrival have been the opening up of the membership to new categories, firstly allowing non-UK-based companies to join as Associates in January, 2000 and more recently encompassing companies that, while not in the gold market itself, are providers of services to the market. Thus Alex Stewart Assayers, and GFMS, have recently joined as Associates."

One of the losses to the London market in recent times was the resignation of CSFB as a clearer and Market Maker late last year. Together with the merger of JP Morgan and Chase, this brought the LBMA's Market Making membership down to just nine. Murray says that "while it was sad to see the ending of CSFB's role as a Market Maker, given that it had been one of the most enthusiastic and creative members of the bullion trading community, talk of the demise of market making at the time in parts of the media were exaggerated to say the least". And looking forward, he said that he would not be surprised to see some new companies joining the ranks of the Market Makers in the coming year.

Although the LBMA was initially set up in 1987 at the behest of the Bank of England to perform a quasi-regulatory role vis-à-vis both the Bank and subsequently, the Financial Services Authority, the Association is perhaps best-known for its Good Delivery Lists, the lists of gold and silver refiners whose bars are acceptable in London by virtue of having satisfied the rigorous technical, operating and financial criteria specified by the LBMA. From the outset, the Good Delivery List has been the core activity of the LBMA. "The Lists are often cross-referred to by other markets, reflecting the thoroughness of the testing procedure which the LBMA has adopted." says Murray, "One of the things we are heavily engaged in at the moment is the introduction of a system of proactive monitoring of refiners on the Good Delivery List.," he said. "This will serve to enhance the credibility and reputation of the Lists and the refiners on it". Referring back to his degree course subjects such as chemical analysis and statistical methods, he added that "little did I realise, all those years ago, that they would one day prove to be a very useful basis for much of the work that we have been doing in the past 6 months to introduce the monitoring system for the worlds major gold and silver refiners.

This year's LBMA conference is taking place in San Francisco. Word has it that the LBMA might well go to China for 2003. Is that a possibility? Stewart Murray is giving nothing away just yet: "Come to San Francisco and find out!" he says, "China certainly is a possibility, as is India. We certainly want to hold our conferences in the future in relevant centres, places either of important production or consumption – the USA this year of course fitting both categories, with the West Coast being important as a fabricating area and it's also just a short hop from Nevada, the principal gold producing area in North America. As for future demand in either India or China, the cultures in these two countries are very different but as in Asia generally, precious metals still play a special role at a social as well as economic level. Many people have suggested the imminent collapse of demand in India, but based on my own experience, I think it's still got considerable potential, and of course so has China as it opens up its bullion market progressively over the coming years."

SAFI Program Trading Signals – Gold Models

The Strategic Automated Financial Investing (SAFI) Program is a directional long/short global macro systematic strategy that invests in a diversified portfolio of currencies, bonds, equities and commodities. The Program uses a quantitative approach for advanced analysis of high frequency market data to generate medium-term trading signals

Technical Signal (non-linear, volatility-adjusted, medium-term trend model): **Neutral**

Fundamental Signal (adaptive, high frequency, inter-asset relationship model): **Neutral**

GEC Technical Indicators

COMEX August Gold Support	Basis price: 322.5	Near Term	Far Term	MBI 50
& Resistance Levels	Secondary Resistance	334.5	355	
	Primary Resistance	330	340	
GEC Market Bias Indicator (MBI)*	Primary Support	316.5	308	
	Secondary Support	311	297.5	

* MBI: 100: bullish sentiment; 0: bearish sentiment

If you have any questions regarding the SAFI Program or our market view, please do not hesitate to contact us: Marc Wall on +44 (0)20 7020 3923.

Views from the GEC trading desk

Gold is golden, gold is sparkling and gold is in the news. The unfortunate aspect of this last point, is that in the past when the yellow metal makes the headlines it has often signalled the end of the move that created the news! Having said that, our feeling is that the steadily stronger price action, a weakening dollar and the uncertainty surrounding India/Pakistan collectively bode well for further gains in the near term. Gold is now at levels that are defined as uncharted, not in the sense we haven't been here before, but more that it was so long ago. The funds remain very long (though showing signs of profit taking above 325), with their stop loss level on the downside likely so far away that they cannot be easily 'squeezed' as has been the case in the past. Fundamentals are for higher gold, while spec's are taking some profit - fundamentals will win in most every case - as spec's will merely reload then buy it again if the situation continues to warrant. And as long as producers (the only 'natural' seller - barring CB's) remain disciplined, spot shall climb.

History has shown that implied option volatilities move closely in tandem with the spot gold price - but surprisingly not this time. The market has been very well prepared in terms of option strikes, so the need to chase volatility higher by purchasing ATM or upside calls has been largely avoided. Indeed, the net long vega play by bullion houses has added to the steady, grinding price action with very few days of outright panic.

Forward prices reflect some borrowing interest in the 1-2 year area. Not enough to be an obvious signal of producer activity, but perhaps bullion houses expressing their view that producers WILL sell eventually - so they are borrowing on what is almost historic lows in preparation. These relatively small flows are not budging the overall price structure significantly however, and gold remains very cheap to borrow.

ATM Implied Option Volatilities (%)

1m 15/16.5 2m 14.75/16 3m 14.5/15.6 6m 14/15 9m 13.75/14.6 12m 13.5/14.25

Forward Rates (%)

1m 1.70/85 2m 1.65/80 3m 1.60/75 6m 1.55/170 9m 1.60/175 12m 1.65/80

Deposit/Lease Rates (bps)

1m 02/17 2m 05/20 3m 10/35 6m 30/50 9m 55/65 12m 70/85

WestLB Monthly Report – News

Bloomberg, April 29th; African Rainbow Minerals and Exploration Ltd will sell 40% of its gold unit to investors next month, looking to raise \$120 million from the sale. The gold unit, to be named African Rainbow Minerals Gold Ltd after the sale, is South Africa's fifth biggest gold producer. It mines about 1 million ounces a year, half of that through a joint venture with Harmony Gold Mining Co. African Rainbow plans to use money raised in the market to repay R300 million in debt and to fund expansion.

Dow Jones, April 29th; Harmony Gold Mining Co reported strong earnings for the March quarter, boosted by the weak rand and a healthy jump in gold production. Net profit rose 71% to \$53 million, up from £31 million 3 months earlier. Gold production rose 13.3% to 673,106 ounces against 594,272 ounces for the previous quarter.

I-Net Bridge, April 29th; South Africa's Gold Fields Ltd is to delist from the NASDAQ stock market, where its American Depository Shares are currently traded, on May 9th and list on the New York Stock Exchange in order to achieve greater visibility and higher liquidity.

Reuters, April 30th; Harmony Gold Mining Co has issued and placed 8.5 million shares at \$13.20, raising \$112 million. The proceeds will be used to retire \$95 million of offshore and to help fund new growth.

Reuters, April 30th; AngloGold announced that it cut its hedge book by 1.7 million ounces in the March quarter to 12.9 million ounces; it subsequently closed out another 643,000 ounces by the end of April.

Bloomberg, April 30th; Gold assets in the euro area fell by \$306 million euros (\$275 million) last week to 139.5 billion euros as the **Austrian National Bank** sold 30 tonnes of gold. The sale was the last tranche of a total of 90 tonnes Austria agreed to sell under the terms of the 1999 European gold agreement.

Platts, April 30th; Due to higher gold prices **AngloGold** reported a 7.3% rise in its operating profit to \$147 million for the March quarter. Production totalled 1.377 million ounces, a fall of 340,000 ounces from the previous quarter on the back of AngloGold's sale of its Free State assets to Freegold.

Canadian Press, May 1st; Barrick Gold Corp reported earnings of \$46 million in the first quarter of 2002, down almost 50% from the \$87 million earned for the same period a year earlier. The profit decline was mainly due to Barrick changing the way it recognises gains or losses from futures contracts outside of its hedging programme in order to comply with new US accounting rules. Last year Barrick had a \$38 million gain from "non-hedge derivatives" in the first quarter; This year it had a one million dollar loss. Production was 1,373,063 ounces of gold; this was 8% lower than for the 1st quarter of 2001 due to the closure of three mines and the winding down of four other operations. For the first time, Barrick sold 50% of its production at spot gold prices with the remaining 50% being delivered through its hedge programme.

I-Net Bridge, May 2nd; Gold Fields Ltd reported a record net profit of R1.049 billion for the quarter ended March 31st, 2002, up 64% on the previous quarter. Gold output was up 10% quarter on quarter to 1.081 million ounces while cash costs dropped 5.3% to \$160 per ounce. The Australian operations

Agnew and St Ives were included for the full quarter while the Damang mine in Ghana, acquired on January 24th, was included for February and March. During the quarter 420,000 ounces hedged with respect to Damang were bought back for a cash gain of \$4.2 million and Gold Fields continues to be totally unhedged to the gold price.

Resource News International, May 3rd; The Canadian Department of Finance announced that the Canadian government sold 95,000 ounces of gold during April; as of 30th April Canadian gold reserves stood at 0.9 million ounces.

Financial Post, May 3rd; Kinross Gold Corp is to suspend its hedging practices. The company has sold 539,000 ounces forward through 2005; it will fulfil those contracts and not replace them.

Reuters, May 7th; Cambior Inc reported a \$10.4 million loss for the first quarter after adjusting for losses on non-hedge derivative instruments; prior to the adjustment earnings were \$1.5 million. The company produced 149,100 ounces of gold at a cost of \$207 per ounce.

Reuters, May 8th; Barrick Gold is to reduce its forward gold position by about 3 million ounces by the end of the year in order to take advantage of rising spot gold prices. At the end of the first quarter Barrick's hedge book was comprised of 18 million ounces of spot deferred contracts, representing 22% of reserves, and 6 million ounces of call and variable price sales contracts which will not be renewed and account for the reduction. Barrick also said that it would no longer invest a portion of spot deferred contracts in corporate bond funds.

Bloomberg, May 8th; African Rainbow Minerals & Exploration Ltd has raised R1.5 billion (\$148 million) from the sale of 40% of its gold unit to investors. The sale values the gold unit, to be named African Rainbow Minerals Gold Ltd, at about R3.8 billion. The offer was three times oversubscribed.

Reuters, May 9th; South African gold miner **Western Areas Ltd** reported a larger loss in the first quarter due to derivative transaction costs and hedging losses. The company posted an attributable loss after tax of R38 million in the quarter ended March 31st against losses of R5.9 million in the previous quarter. Gold production rose 4.2% to 45,397 ounces while cash costs were contained at \$159 per ounce.

Reuters, May 10th; The World Gold Council said that its chief executive, Haruko Fukuda, will leave her post on June 30th. New WGC chairman Chris Thompson said the group is looking to restructure and remodel itself and that Fukuda will help with the transition until a new CEO is appointed.

OsterDowJones, May 13th; London Bullion Market Association statistics showed a 10% increase in the volume of gold cleared during April, up from a daily average of 17.4 million ounces in March to 19.2 million ounces. Year-on-year clearing statistics remain low, however, with ounces cleared down by 23.5%.

Mail and Guardian, May 14th; According to a study commissioned by the South African Chamber of Mines, thieves pillage around 35 tonnes of gold from South African mines every year. The study, by Peter Gastrow, director of the Institute of Security Studies in Cape Town, estimates that the total working profit for South Africa's gold mines in 1998 would have been 33.3% higher had there been watertight security, while the government would have been 13.4% richer through tax receipts from gold mines. The report notes that arrest rates have steadily declined since 1995 and police departments devoted to gold and diamond crime are seriously under-funded.

Bloomberg, May 16th; Shares in **African Rainbow Minerals Gold Ltd** surged by 25% as the company made its debut on the Johannesburg Stock Exchange. ARM Gold is South Africa's biggest black-owned gold miner. The stock rose 11 rand to 55 rand giving the company a market value of about R5 billion (\$491 million).

AFX, May 16th; World gold demand fell 10% to 745 tonnes in the first quarter of 2002 from the same period the previous year, as a slump in jewellery sales outweighed a surge in demand from nervous investors seeking a safe haven the World Gold Council said. While demand from individual investors soared by 36% to 126 tonnes, gold consumption in the jewellery industry fell by 15% to 624 tonnes.

Reuters, May 17th; Australia's biggest gold producer, **Aurion Gold Ltd**, announced that it will continue to reduce its hedge book in order to take advantage of higher market prices. The company plans to reduce its forward sales exposure to 60% from 86% of its total reserves over the next two years by delivering gold into its hedge book and by increasing reserves. Aurion, which was formed at the end of last year by the merger of Goldfields Ltd and Delta Gold, reduced its hedge book slightly at the end of the last quarter to 5.5 million ounces.

AFX-Asia, May 22nd; Wang Zhe, head of the **Shanghai Gold Exchange**, said that the Exchange will begin operations before the end of June. He also noted that the government had agreed not to impose a 17% value added tax on gold transactions conducted through the exchange. The country's silver exchange, also based in Shanghai, is subject to VAT on transactions, which has kept turnover thin.

Dow Jones, May 23rd; South Africa's Durban **Roodepoort Deep** is to issue 10 million new shares to raise \$40 million. \$35 million of this amount will be used to close out its hedge book while the remaining \$5 million will be allocated to fund its exploration programmes in Papua New Guinea and Australia.

Bloomberg, May 24th; Harmony Gold Mining Company and African Rainbow Minerals Gold Ltd have agreed to buy the St Helena gold mine from Gold Fields Ltd for 120 million rand (\$12 million) plus a one per cent royalty on revenue for four years. The new owners will work St Helena, which Gold Fields was set to close within two years, in tandem with four adjoining mines in Free State province that they bought from AngloGold last year. The synergies of the project, will probably extend the life of St Helena, which produces 120,000 ounces of gold a year, to four years.

Reuters, May 26th; Placer Dome Inc has offered to acquire Aurion Gold Ltd for \$1.11 in stock. The offer, if accepted, would create the world's number 5 gold mining company producing more than 3.8 million ounces a year. The offer would exchange 17.5 Placer shares for every 100 Aurion shares which represents a 30% premium. Harmony Gold Mining Co Ltd, Aurion's biggest shareholder, has agreed to support the bid and vote its 9.8% shareholding in favour of the acquisition.

Dow Jones, May 28th; The Eurosystem's reserves of gold and gold receivables fell by 44 million euros in the week ended May 24th. The ECB attributed the fall to the sale of 4 tonnes of gold by a euro-zone national central bank, later revealed to be the Netherlands.

Business Recorder, May 30th; Brazil's top gold miner, **Cia Vale do Rio Doce (CVRD)** is to lose over 40% of its refined gold production this year due to the exhaustion of the Igarepe Bahia mine, which previously had an annual production capacity of 200,000 ounces.

Associated Press, May 30th; Australian gold miner **Aurion Gold Ltd** appears prepared to reject Placer Dome Inc's \$1.13 billion takeover bid unless the Canadian company sweetens its offer. Aurion, which is facing a June 11th deadline for issuing a formal response and recommendation to its shareholders, said that it was examining "alternative options".

Dow Jones, May 31st; South Africa's National Union of Mineworkers said it has signed an agreement with **Harmony Gold Mining Company Ltd** ending a three-week old strike at the company's Kalgold mine. The union said the Kalgold workers had accepted Harmony's offer of an 8-9% increase in wages, and transport and medical aid allowances.

Monthly Gold Data

GOLD PRICES IN VARIOUS CURRENCIES - MONTHLY AVERAGES

	US\$/OZ	YEN/GR	ZAR/KG	A\$/OZ	SFR/OZ
Jan-00	284.41	962	54,132	432.23	452.21
Feb-00	300.36	1,057	59,042	477.57	489.59
Mar-00	286.55	982	57,572	469.99	476.19
Apr-00	279.76	948	57,533	468.61	464.63
May-00	275.30	957	60,114	476.46	472.58
Jun-00	285.49	974	61,513	480.62	469.23
Jul-00	281.87	978	60,284	478.64	464.83
Aug-00	274.49	953	59,347	472.36	470.28
Sep-00	273.68	939	60,960	493.74	480.28
Oct-00	270.20	942	62,755	510.97	477.96
Nov-00	265.97	931	63,478	508.64	472.68
Dec-00	271.64	980	64,542	496.60	458.31
Jan-01	265.71	996	66,429	477.91	432.62
Feb-01	262.04	978	65,857	490.90	437.00
Mar-01	263.15	1,027	66,781	523.01	444.67
Apr-01	260.69	1,037	67,723	520.31	445.80
May-01	272.19	1,070	69,830	523.67	475.48
Jun-01	270.48	1,056	69,980	521.81	482.69
Jul-01	267.66	1,070	70,485	525.03	470.31
Aug-01	272.56	1,063	72,891	519.48	457.88
Sep-01	283.45	1,080	78,598	561.75	462.70
Oct-01	283.18	1,084	85,682	559.65	461.32
Nov-01	276.17	1,085	85,942	533.96	455.40
Dec-01	275.85	1,122	102,609	534.69	454.62
Jan-02	281.52	1,162	101,546	543.28	468.78
Feb-02	295.50	1,268	109,023	575.48	501.25
Mar-02	294.22	1,240	108,708	560.02	492.93
Apr-02	301.35	1,273	108,184	564.65	500.43
May-02	313.46	1,273	102,746	571.41	498.45

Source: Virtual Metals

LEASE RATES MONTHLY AVERAGES – PERCENT

	ONE MONTH	THREE MONTH	SIX MONTH	TWELVE MONTH
Jan-00	0.64	1.11	1.31	1.81
Feb-00	0.53	0.81	1.10	1.77
Mar-00	0.73	0.91	1.14	1.82
Apr-00	0.80	1.01	1.27	1.75
May-00	0.81	1.02	1.28	1.66
Jun-00	1.01	1.17	1.39	1.80
Jul-00	0.82	0.95	1.32	1.65
Aug-00	0.74	1.04	1.23	1.64
Sep-00	0.88	0.97	1.24	1.62
Oct-00	0.89	1.16	1.25	1.67
Nov-00	0.89	1.11	1.21	1.59
Dec-00	1.14	1.11	1.21	1.67
Jan-01	1.06	1.06	1.14	1.61
Feb-01	1.77	1.63	1.54	1.78
Mar-01	3.30	2.60	2.25	2.19
Apr-01	2.77	2.45	2.22	2.25
May-01	2.50	2.40	2.34	2.49
Jun-01	2.07	2.08	2.12	2.35
Jul-01	1.14	1.43	1.70	1.96
Aug-01	0.71	0.98	1.45	1.88
Sep-01	0.87	1.06	1.49	1.86
Oct-01	0.61	1.03	1.28	1.66
Nov-01	0.73	1.01	1.18	1.55
Dec-01	1.05	1.18	1.29	1.68
Jan-02	0.73	0.94	1.15	1.58
Feb-02	0.72	0.94	1.15	1.59
Mar-02	0.60	0.78	1.03	1.51
Apr-02	0.51	0.68	0.93	1.41
May-02	0.45	0.63	0.82	1.25

Source: Virtual Metals

GOLD IMPORTS IN SELECTED COUNTRIES – KILOGRAMME

	USA	JAPAN	UK	GERMANY	SINGAPORE	ITALY	FRANCE
Jan-00	23,477	2,069	50,535	2,520	28,807	32,259	3,094
Feb-00	12,114	6,052	42,315	5,365	14,934	34,304	6,141
Mar-00	55,359	4,899	61,542	4,044	21,983	44,598	4,981
Apr-00	21,271	7,800	31,775	4,165	24,074	27,185	3,433
May-00	21,095	5,243	37,792	6,033	22,437	42,776	2,668
Jun-00	19,768	6,199	57,891	3,167	15,410	36,449	2,494
Jul-00	22,033	3,234	58,301	6,251	9,769	34,765	2,944
Aug-00	20,714	8,317	41,096	3,344	15,706	23,613	2,113
Sep-00	25,174	8,205	34,439	9,232	23,501	50,523	2,977
Oct-00	20,817	7,830	58,774	6,169	18,193	65,036	3,728
Nov-00	23,889	8,151	32,709	6,141	12,586	38,732	2,663
Dec-00	22,704	4,955	39,488	5,619	10,937	38,732	2,362
Jan-01	20,450	2,721	76,178	8,872	11,360	35,560	3,469
Feb-01	18,630	2,583	49,771	6,196	22,504	36,187	6,081
Mar-01	20,204	1,970	85,776	7,159	13,472	35,186	2,920
Apr-01	15,539	3,303	67,886	6,604	6,291	31,131	2,665
May-01	13,823	3,257	62,042	10,651	9,128	32,887	3,313
Jun-01	18,304	1,275	96,141	8,894	3,294	32,397	2,836
Jul-01	17,274	3,416	85,639	5,889	7,969	36,544	3,193
Aug-01	21,290	3,379	64,529	2,129	11,510	20,278	3,071
Sep-01	20,291		67,997	4,512	12,914	34,816	5,945
Oct-01	28,525		73,636	6,668	7,214	45,505	4,842
Nov-01	26,019		58,716	4,615	7,904	36,549	1,912
Dec-01	15,752			2,505	10,798		2,112
Jan-02							
Feb-02							

Source: Virtual Metals

GOLD PRODUCTION FROM MAJOR MINING COUNTRIES - KILOGRAMMES

	SOUTH	CANADA	USA
	AFRICA		
	QUARTERLY		
Jan-00		11,863	30,000
Feb-00		11,369	28,300
Mar-00	106,563	12,068	29,600
Apr-00		12,101	28,100
May-00		12,379	26,600
Jun-00	105,613	12,783	28,800
Jul-00		13,715	26,300
Aug-00		13,942	28,500
Sep-00	107,860	13,918	29,100
Oct-00		13,172	27,600
Nov-00		13,459	24,700
Dec-00	107,999	13,588	30,100
Jan-01		13,099	29,000
Feb-01		11,685	26,500
Mar-01	98,104	13,840	26,800
Apr-01		12,319	27,000
May-01		14,651	27,700
Jun-01	95,947	12,838	29,400
Jul-01		12,857	29,600
Aug-01		11,933	27,000
Sep-01	98,026	12,612	26,300
Oct-01		13,757	27,000
Nov-01		13,192	23,700
Dec-01	101,447	14,567	25,200
Jan-02		12,769	22,900
Feb-02		11,324	23,300
Mar-02		11,798	

Source: Virtual Metals

Client Contacts:

Global Head	Marc Wall	tel. +44 (0)20 7020 3923
London - Metals	Gerhard Schubert John King	tel. +44 (0)20 7020 3921 tel. +44 (0)20 7020 3926
Sydney - Metals	Tony Gamson	tel. + 612 9777 9952
New York – Metals	Edward Jette Scott Henderson	tel. + 1 212 852 6372 tel. + 1 212 852 6372

Please direct questions concerning views or recommendations in this report to the respective analyst.

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WestLB Global Financial Markets – Gold, Energy & Commodities

Woolgate Exchange, 25 Basinghall Street, London, EC2V 5HA

Internet: <http://www.westlbmarkets.net/>

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