

LBMA

Alchemist

The London Bullion Market Association

ISSUE 15

April 1999

In this issue:

- *Consolidated Goldfields,*
by Paul Burton
page 2

- *Tanzania*
Land of Golden Promise,
by Nana Yaw Boafo
page 6

- *Reforming the Swiss*
Monetary Constitution,
by Enzo Rossi
page 10

- *La Coipa's Silver Lining*
by Hugh Leggatt
page 12

- *Asian Update,*
by Gold Fields Mineral
Services Limited
page 14

- *Truth & Statistics,*
by Tony Warwick-Ching
page 21

- *Editorial Comment*
by Peter Fava
page 22



A view across the Andes in northern Chile from a section of the haul road connecting the Los Chimberos silver deposit with its processing mill. (see page 12)

Consolidating Goldfields

By Paul Burton, Editor, *World Gold*

Once a famous name in London and South Africa, consolidated goldfields now succinctly describes the state of the industry worldwide. The situation within the gold mining industry is not dissimilar to the consolidations in the automobile manufacturing industry, the financial services sector, and more recently, in the oil business as major players merge into even bigger operating units.

Gold seems to have lost much of its traditional lustre, certainly at the most visible end of the market, the bullion end. The gold price is floundering, there is much talk of central banks selling their gold, and bullion trading through the London Bullion Market has declined in terms of both value and physical transactions.

However, at the bottom of the business chain, gold is in great demand as hundreds of exploration and mining companies compete to find and exploit the gold deposits of the world. But the low gold price coupled with poor market conditions means that the proliferation in company growth has faltered.

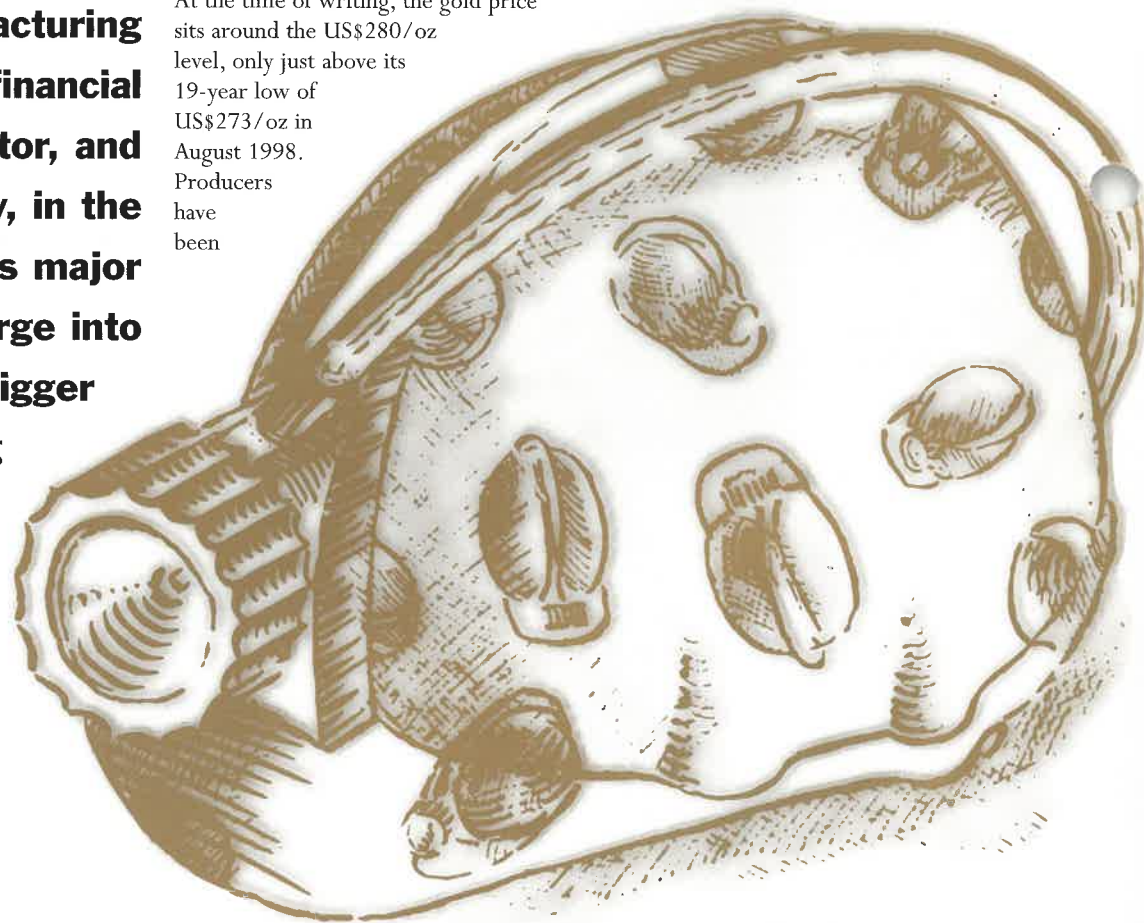
As reserves become scarce and some operating companies experience financial difficulties, we are witnessing a consolidation of the mining industry into fewer, but bigger, companies.

Exploration Cut

At the time of writing, the gold price sits around the US\$280/oz level, only just above its 19-year low of US\$273/oz in August 1998. Producers have been

forced to take drastic action to reduce costs and thus maintain cashflows and restore profit margins. However, share prices have continued to fall. Over the last year the FTSE Gold Mines index has fallen 35% — and it's the same picture around the globe, with the TSE Gold & Precious Minerals index down 33% and the Australian Gold index down 31%.

The current depressed gold market is having a profound effect on the growth strategies of the major mining companies. As gold miners are constantly depleting their assets they need to replenish reserves annually. Traditionally the primary source of new reserves is to grow organically through exploration. With the present enforced state of austerity, tough decisions are being made on primary exploration and its perceived economic advantages vis-à-vis the alternative growth method, acquisition.



It is apparent that exploration activity by the majors has experienced a slowdown. Figures from Metal Economics Group show that exploration spending in 1998 fell 31% from the peak of US\$5.1 billion in 1997. With the general reduction in exploration budgets comes a shift in exploration emphasis away from grassroots prospects to more advanced projects.

For junior companies, principally those small companies with exploration plays but no production, the immediate challenge is to survive when their prime funding source, the equity markets, has all but dried up. With no production revenue they are often entirely reliant on outside funding to continue exploration. With gold shares depressed and investors no longer enamoured of this risky market, partly because of the damage in confidence caused by the Bre-X Minerals fraud scandal in 1997, their survival is threatened.

The juniors thus find themselves at the mercy of the predatory global mining powers, who become the only financing option available. The majors' growth imperatives, with a diminished reliance on internal exploration, are being fulfilled partially by the acquisition of smaller producers and juniors who have successfully discovered deposits of suitable interest.

As reserves are essentially finite, known, existing deposits are highly desired. The consequence is a competitive struggle between the most powerful players to gain access to available reserves by paying prices that are at a substantial premium over intrinsic value.

Acquisitions Increase

It is the North American sector that has witnessed much of the corporate activity that now characterises the industry. This probably stems from the fact that investors in this market have placed such a high premium on operational growth and the markets and financial structures are sufficiently liquid to support such strategies.

The modern era probably starts in 1997 with Newmont Mining's US\$2.1 million deal with fellow-Nevada miner, Santa Fe Pacific Gold. There were clear cost advantages in combining these neighbouring operations — while at the same time enabling Newmont to cement its position as North America's largest gold producer.

But it is not always a cost imperative that drives the consolidation process, although it

remains a significant motivating force. Sometimes the reasons are more akin to greed than sound business sense.

The year 1997 also saw an unprecedented and unseemly scramble for the apparently mammoth-size resources discovered by Canadian junior Bre-X Minerals at Busang on the island of Kalimantan, Indonesia. Some North Americans were willing to trade significant portions of their companies to secure these phantom ounces.

The competition for reserves around the world has not diminished over the past two years, although due diligence is being undertaken in a much more thorough and professional way.

In 1998, there was a continuation of the rationalization process in North America with Amax Gold's operations being merged into Kinross Gold to form a million-oz plus producer. Another of North America's most established producers, Homestake Mining, consolidated its interests in subsidiary Prime Resources by acquiring the 49.4% that it did not already own. Homestake, along with Placer Dome, has significant interests in Australia and 1998 saw it strengthen its presence there through the take over of Plutonic Resources.

Within Australia there has been limited merger and acquisition activity. Much of what has happened has arisen out of a commonsense consolidation of small operations around specific deposits. In this regard Sons of Gwalia has been instrumental in streamlining operations in the Southern Cross and Marvel Loch regions of Western Australia.

The important and productive Yandal Belt of Western Australia is undergoing this type of consolidation while at the same time being the epicentre of major corporate restructuring. In the past two years Great Central Mines has acquired the neighbouring operations of Wiluna Mines and Eagle Mining to enable it to develop the common orebodies more profitably. Its operations are likely to embrace nearby Mt McClure after 22%-owned Australian Resources went into receivership in March 1999.

Great Central Mines itself is being swallowed up in a A\$276 million deal that will see Normandy Mining, Australia's only world-class gold producer, acquire a 57% interest.

In Canada, Placer Dome, a strong advocate of exploration, has acknowledged that there is a window of opportunity "to acquire the world's best mid-stage prospects". Since making that statement in mid-1998 it has acquired Nevada underground miner, Getchell Gold, for over US\$1 billion and has taken a bold step into South Africa with the US\$235 million purchase of 50% of Western Areas.

This latter deal is groundbreaking in that it is the first venture into the world's largest gold producing nation by a North American major.

**Figure 1:
Recent Major Acquisition Activity**

Mine	Acquired
Newmont Mining	Santa Fe PG
Kinross Gold	Amax Gold
Homestake Mining	Plutonic Resources
	Prime Resources
	Argentina Gold (offer)
Teck	Camelot
Normandy Mining	Great Central Mines (57%)
Placer Dome	Western Areas (50%)
	Getchell Gold
Gold Fields	Gencor & GFSA mines
	Driefontein
AngloGold	Anglo American mines
	Minorco
Barrick Gold	Sutton Resources
Ashanti Goldfields	Samax Gold

South Africa Rationalises

South Africa itself has seen massive rationalisation, prompted as much by the need to take on a corporate structure more recognisable by the international investment community as to reduce costs (the depreciation of the Rand has greatly assisted this latter objective).

The corporate restructuring that has been embraced by the South Africans over the past five years, and principally in the past two years, has revolutionised the shape of the producing industry there. In 1990 there were six mining houses controlling, through a complex weave of inter-relationships, 38 gold mining companies. By the end of 1998 the mining house will effectively be

Figure 1:
Rationalisation in South Africa

1990 1999
Anglo American AngloGold

Afrikander Lease
ERGO
Elandsrand
Free State Cons
Southvaal Holdings
Vaal Reefs
Western Deep Levels

Anglovaal Avgold

ETC
Hartebeestfontein
Lorraine
Zandpan
Village Main Reef

Gencor Gold Fields
St Helena

Beatrix
Braken
Buffelsfontein
Grootvlei
Kinross
Leslie
Oryx
St Helena
Stilfontein
Unisel
West Rand Cons
Winkelhaak



Gold Fields of SA Gold Fields

Doornfontein
Driefontein
Deelkraal
Kloof
Libanon
Venterspost

JCI Randfontein
Western Areas

HJ Joel
Randfontein
Western Areas

Rand Mines

Blyvooruitzicht
Durban Deep
ERPM
Harmony

Independents Durban Deep
ERPM
Harmony
Kalgold

redundant, as a corporate management structure and the number of listed mines will have shrunk to just a handful.

Two of the largest gold companies in the world, Gold Fields and AngloGold, were only formed last year through the consolidation of existing mining companies. Gold Fields, formed by the merger of the gold operations of Gold Fields of South Africa and Gencor, is set to entrench its position as a major world player by the acquisition through a reverse deal of 100% of Driefontein in May.

AngloGold, the product of a major merger within Anglo American, is now the world's largest producer with annual production in excess of seven million ounces. It recently acquired the gold assets of Minorco for US\$550 million increasing its annual production and expanding the scope of its operations to North and South America.

While much of the above activity involves rationalisation of existing production, three of the highest profile acquisitions in recent months have involved

prospects owned by junior explorers. The three are Barrick Gold's acquisition of Canadian junior Sutton resources for its 8.8 million oz Bulyanhulu gold deposit, in Tanzania; Ashanti Goldfields purchase of Samax Gold that secured the orebody adjacent to its Geita deposit, again in Tanzania; and Homestake Mining making a bid for Argentina Gold for its promising Veladora prospect. In each case the buyer paid a substantial premium for the shares.

Superleague

The number of participants within the industry is contracting significantly. No longer is a one-million ounce producer classed as large. There is now a super-league of producers with annual output around upwards of 2.0 million ounces.

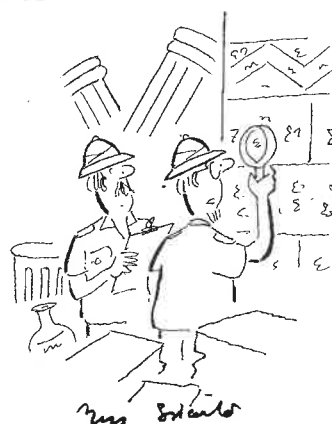
I wrote a tongue-in-cheek lead story three years ago suggesting that the industry in 2006 would consist of just seven companies – the G7 or Golden Seven. I was wrong. The consolidated goldfields may be a reality long before

Figure 3:
Superleague Producers*

Superleague	1998 Moz/y	Mkt Cap (US\$ billion)
AngloGold	6.8	3.9
Newmont Gold	4.1	3.2
Barrick Gold	3.2	6.9
Gold Fields	3.0	1.4
Placer Dome	3.0	2.7
Homestake	2.1	2.2

* Excludes diverse mining companies
Rio Tinto and Freeport McMoRan
Copper & Gold

2006. ■



"APPARENTLY MIDAS HAS EMERGED AS
THE WORLD'S BIGGEST GOLD PRODUCER."



PAUL BURTON

Paul Burton is editor of *World Gold*, the specialist gold publication in the Mining Journal group.

He is a Cornish mining engineer who trained at the Camborne School of Mines before spending almost twenty years working in the South African gold mining industry, in the areas of production, mineral economics and minerals marketing.

He holds an MSc in Mining Engineering and an MBA from the University of the Witwatersrand.



The strength of a relationship is judged by the challenges it endures.

Chase is committed to providing liquidity and impeccable execution under the most challenging conditions. Our 4,000 global markets professionals, combined with our capital strength and award-winning research, make us the trading partner of choice for all your fixed income, derivatives and foreign exchange needs.

Chase. The right relationship is everything.®

TANZANIA

Land of Golden Promise

By Nana Yaw Boafo, Senior Investment Relations Manager, Ashanti Goldfields



Mining ghost towns don't normally come back to life. But Geita is about to become an exception.

At Geita, a small town in north-western Tanzania, lie the remains of an abandoned gold mine.

It seems as though the miners decided to leave on the spur of the moment, suddenly abandoning their work. Most of the machinery – burners, crushers and gas engines – remains in place. A crusher, imported from Denver, Colorado, was used to break up ore. A mill with serial number 750 from the Mine & Smelter Company stands rusting in the tall grass. Up on Geita Hill, the waste dumps of the old mine site are still visible.

The Geita mine was once East Africa's largest gold producer, with five deposits linked by underground workings and a 16-kilometre-long aerial rope-way used to transport ore. When it was in full operation, 80 tonnes of wood a day were required to produce electricity for the plant. It produced more than 900,000 ounces of gold between 1938 and its closure in 1966.

Mining ghost towns don't normally come back to life. But Geita – along with other key sites in Tanzania – is about to become an exception.

Today, after almost thirty years of minimal gold mining activity, Tanzania is rapidly gaining attention as a haven for mining investment: it attracted more exploration spending last year than any other African country, including South Africa. Its new-found attraction is due to several reasons:

- Political stability
- Significant economic reforms since 1986
- Recently enacted mining and investment code, widely regarded as one of the best in the world
- High potential for natural resource development
- Government commitment to development of physical infrastructure

A new optimism about Tanzania as a favourable mining destination has developed among major industry observers. In a recent report, for example, Michael Curran, Senior Analyst (Gold) at Merrill Lynch, states, "Tanzania has been highlighted as an emerging centre for African gold production over the next few years."



According to Merrill Lynch's evaluation, Tanzania is among the African nations with the lowest country risk. The report continues that *Tanzania is poised to emerge as a significant gold producing nation, due in part to its*

- Superb geological setting and deposits of



Sunset over Lake Victoria, behind Ashanti's Exploration Office, Mwanza (photo by Deepak Mohinani, Palace Promotions Ltd., Ghana)

gold ...; but also to a

- Successful program of governmental policy reforms that have been enacted over the past decade; and
- The combined package of economic financial and tax reforms and specific mining legislation have proved a winning combination in attracting a greater share of the global investment for mineral exploration and development to Tanzania.

The opportunity that Tanzania provides is very much in line with Ashanti's internal strategic drivers. The company has strategically positioned itself in a continent with substantial gold reserves by developing a network of relationships with heads of state and policy makers. With over a hundred years of mining history to its credit, Ashanti has developed the resilience necessary to operate in the African environment and has accordingly positioned itself to take advantage of these vast untapped resources.

By the year 2000, the company will operate Africa's two largest gold mines outside South Africa: Obuasi in Ghana and Geita in Tanzania. This provides the firm

with the critical mass not only required to compete on a global level, but also to guarantee long-term success in its niche operating area as the largest gold producer in Africa outside South Africa.

Mining Conditions and Considerations in Tanzania

Tanzania's recent transformation in the mining sector has been rapid and decisive. Tanzania's National Investment (Promotion and Protection) Policy Act, enacted in 1990, stimulated foreign investment in mining. An investment and promotion centre was simultaneously created and was shortly followed by a spate of agreements between the government and foreign mining companies to further exploration.

In order to encourage the growth of mining investment, the Tanzanian government actively sought input to improve upon its Mining Act of 1979, and in April 1998 passed the new Mining Act. This brave new initiative addresses mine safety, health and environmental issues, protects mineral rights and

related contractual obligations, and largely eliminates ministerial discretionary powers in the sector. Through this act, mining and exploration firms are exempted from VAT. In addition, the Tanzanian government has recently exempted operating mines from the payment of most fuel taxes.

However, some critical issues remain:

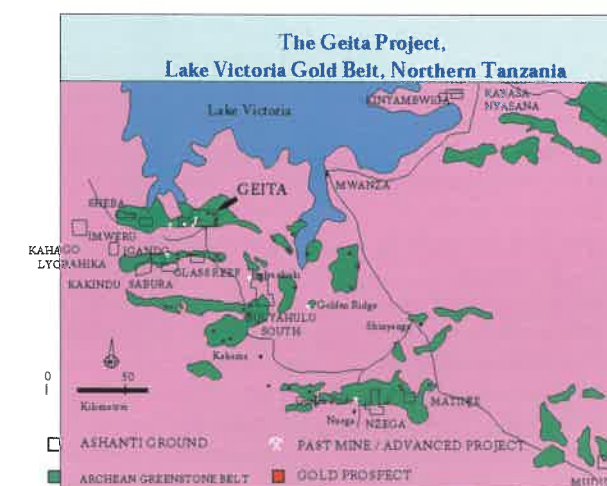
- Diminishing national incomes in Ashanti's areas of activity - not just in Tanzania, but across the continent - may pressure African governments to revise their incentive programmes granted to the industry; and

- In the area of community relations, falling incomes may tend to precipitate increasing financial demands from local communities.

The Geita Greenstone Belt

Ashanti's Tanzanian properties are mainly located on the greenstone belts and banded iron formations of the Lake Victoria goldfields, an area bearing geographical similarity to existing lode gold deposits in other parts of the world, such as Australia and Canada. These gold-bearing belts were formed as a result of ancient volcanic activity.

Ashanti's Tanzanian properties contain five deposits: Geita, Lone Cone, Nyankanga, Kukuluma and Matandani. At Geita and Lone Cone, the gold is contained in heavily folded, banded ironstone layers. Nyankanga, discovered in 1997, occupies a low-lying area to the west of Lone Cone. Here the gold is contained in a network of irregular veins. The ores are non-refractory, with metallurgical recoveries in excess of 90% being obtained. Kukuluma and Matandani, the most recent discoveries, are located approximately seven kilometres north east of Geita Hill on a separate banded ironstone ridge formation.



Current Exploration and Mine Expansion at Geita

Resources at Geita presently stand at 55.3 million tonnes grading 3.6 grammes per tonne, equivalent to 6.4 million ounces of contained gold at a cut-off of one gramme per tonne. Of this total, 83% are in the measured and indicated categories.

In terms of ore types, 36% are contained in oxides, which are found nearer the surface. In this part of the deposit, the weathering process tends to make the ore more porous and facilitates the crushing and milling process, favourably impacting on cost and throughput. Another 12% are in transitional ores, and the remaining 62% in sulphides. Unlike the Obuasi deposit in Ghana, West Africa, the sulphides are non-refractory, resulting in high gold extractions at lower processing cost.

Proved and probable open pit reserves currently total 36.6 million tonnes, grading 3.5 grammes per tonne, equivalent to 4.1 million ounces. In terms of currently published reserves, this has elevated Geita to the largest gold development in Tanzania, ahead of Bulyanhulu. Reserves have been calculated at a gold price of \$300. Stripping ratios (the amount of waste material versus ore) for the five deposits average 4.3 to 1.

For Geita's expansion, a construction period of 19 months is envisaged starting from the second quarter of 1999. Based on the feasibility reserves, the project is expected to recover a total of 3.43 million ounces of gold at an average cash operating cost of US\$180 per ounce over an 8.5 year mine life. There is excellent potential for this resource to be expanded both



View from Barbeque Point, Geita (photo by Deepak Mohinani, Palace Promotions Ltd., Ghana)

on surface and underground where pit is open at depth. Ashanti is now pushing ahead with the development of a four-million tonne a year Carbon-in-Pulp processing plant to produce 400,000 ounces, using the same EPCM contractor which successfully brought Tanzania's first mine into production at Golden Pride. The capital cost estimate for the project currently stands at \$140 million including contingencies. Long lead items have already been ordered and full construction has commenced. The project is being internally funded by Ashanti Goldfields.

Measured, indicated and inferred resources at Ashanti's Geita project increased during 1998 by one million ounces to stand at 4.4 million ounces (34 million tonnes grading 4.05 grammes per tonne). This increase was largely due to the newly discovered Nyankanga deposit, where a resource of 2.3 million ounces (15.4 million tonnes grading 4.76 grammes per tonne) was outlined. Nyankanga is a new deposit under ferricrete cover and had no previous artisanal mining activities. Drilling on the Matandani prospect, to the west of Kukuluma Hill, demonstrates similar mineralisation. Excellent

potential still exists for additional open pit and underground resources to be outlined within Ashanti's concessions.

From Ghost to Growth

Last year, Ashanti produced 1.55 million ounces from its mines. This year's production is estimated at 1.7 million ounces, including its 50% share in Golden Pride. With Geita on stream, production will rise to 1.9 million ounces – even with the closure of the Iduapriem and Ayanfuri operations. Geita will thus be a major growth component for Ashanti over the next decade, as it re-establishes itself as one of the major gold producing districts on the African continent. ■



Nana Yaw Bofo is the Senior Investor Relations Officer at Ashanti Goldfields Company. Mr Bofo participated, as an analyst at Gold Coast Securities, in the global equity offering of Ashanti Goldfields. He has also practiced fund and investment management for various portfolios, and jointly supervised the Government Employee Share Ownership Program (relating to Ashanti Goldfields stock ownership). An Authorised Dealing Officer of the Ghana Stock Exchange, Nana Yaw has published weekly stock market commentary over a period of two years. He has interviewed local and foreign ministers, including the US Secretary of State for Transport and the Prime Minister of Côte d'Ivoire. Prior to his appointment at Ashanti Goldfields, Nana Yaw served as Executive Director of High Street Journal, a Ghanaian weekly selected by President Clinton during his visit to Africa in 1998.

Quick Study...

Oil Shock Bond

By Jason Thiel, Director, European Derivatives, Bankers Trust Company

In this issue, Quick Study examines an interesting option product currently used in the oil market.

The oil market continues to be extremely volatile. Huge oversupply in late 1998/early 1999 culminated in 12 year lows being posted on WTI (\$10.75 prompt). In March this year, OPEC agreed to cut production by some 2.1 million barrels/day. Belief that this time OPEC could actually keep to these promises (promises that historically the majority of OPEC members have not kept) sparked a massive short-covering rally and the market is now trading back at levels seen in mid-1998 (\$16.50 WTI prompt). This kind of price action is typical in the oil market. As its name implies, the OIL SHOCK BOND takes advantage of such shocks and has been observed more or less continuously for the last 15 years.

Statistically there is at least one such shock within a 3-year rolling period (see chart).

An example of a 3-year transaction:

Notional	USD 10,000,000
Upperstrike (Uk)	115% of prevailing mkt forward
Lowerstrike (Lk)	85% of prevailing mkt forward
Upper Lockin (Ul)	145% of prevailing mkt forward
Lower Lockin (Ll)	55% of prevailing mkt forward

Strike Fixing Dates

- 1 transaction date
- 2 transaction date + 1 year
- 3 transaction date + 2 years

At each Strike Fixing Date the strikes will be reset at the above bands around the prevailing 1-year forward price.

Payment Dates

- 1 transaction date + 1 year
- 2 transaction date + 2 years
- 3 transaction date + 3 years

Price of Bond:

25.4% of notional

Redemption Formula:

At each Payment Date the bond redemption will be:

Notional + max [min {notional * (Ul - Uk, S - Uk)}, 0] + max [min {notional * (Ll - Lk, S - Uk)}, 0]

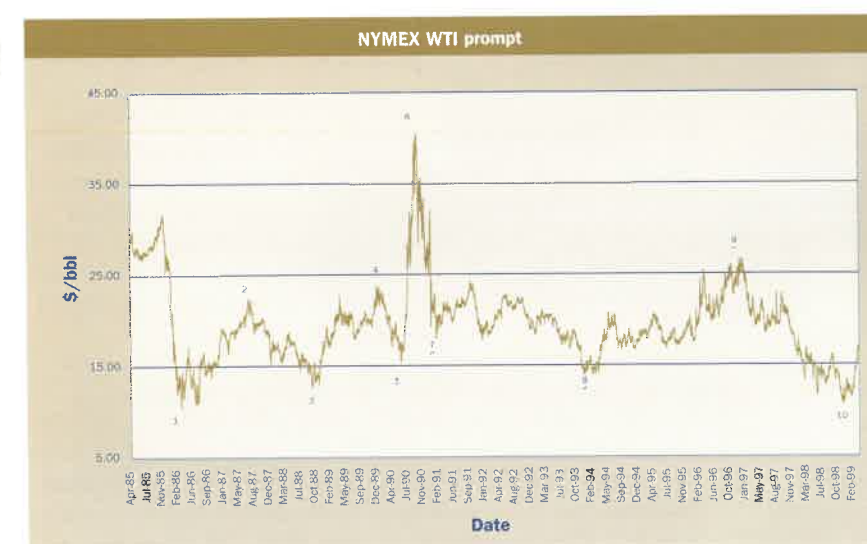
If at anytime during the life either Ul or Ll levels trade in the futures market, then either (Ul - Uk) or (Lk - Ll) is locked in and payable at the end of that year.

In the example above, the bondholder would gain as the futures price moved above the upper strike to a maximum of 30% of notional. The maximum payout occurs if at ANY time during the life the Upper Lockin level is hit. This scenario is also true as futures prices go lower. Obviously the maximum return is 30% in any one year i.e., Upper and Lower Lockin levels cannot both be hit in any one year. The bondholder effectively has 3 chances of gaining a 30% return which, if successful each year, will result in a 90% gross return on notional.

The graph at left shows crude oil price action over the last 15 years:

As can be seen from the chart, there are at least 10 "shock" moves over 15 years, which indicates between 2 and 3 "shocks" in any 3-year period.

As the bondholder requires only one "shock" move to yield a near 5% net return, the potential to increase the net return to 35% or even 65% seems very good indeed. ■



Reforming the Swiss Monetary Constitution *Implications for Gold*

By Enzo Rossi, Authorised Officer, Swiss National Bank

Switzerland has been living under a gold standard regime for a long time. However, since 1973, the Swiss National Bank has ceased to stabilise the Swiss franc on exchange markets. The currency floats; its price fluctuates according to market supply and demand; and the price of gold in Swiss francs is free. The legal regime, however, has not been changed. It is still based on a gold parity fixed by the government. Over the last 25 years, a large discrepancy has shown up between the actual monetary regime and the legal framework, between the official price of gold and the market price.

In order to close the gap between monetary legislation and monetary reality, several referenda are planned over the next 12 months. The first referendum on the agenda was recently held on April 18th. It encompasses a complete update of the Swiss Constitution including – among many items – the monetary regime and gold. It formalises the absence, in practice, of a link between the Swiss franc and gold. Upon approval at the referendum level, Constitutional amendments require subsequent amendments on the legislative level. For this reason, a draft law on Currency and Payment Instruments was submitted to a consultation procedure in autumn 1998. It is intended to replace the current Coinage Law and several provisions of the National Bank Law. According to the draft law, not only will currency circulation no longer need to be backed by gold, but the SNB will no longer have to value its gold reserves at the official parity price. It will be allowed to buy and sell gold at market prices. Unlike constitutional changes, amendments to laws are not submitted to a referendum unless a minimum of 50,000 Swiss voters petition for one during a three-month waiting period. If this period elapses without sufficient petitions, then the law passes.

The draft law will probably remain under discussion until the autumn of 1999, with a final version produced by the end of the year. Since this is a technical issue, a referendum is fairly improbable. Therefore, the law

on Currency and Payment Instruments can be expected to enter into force in spring 2000. Passage would allow the SNB to operate on the gold market at prevailing conditions.

The final measure involves a more comprehensive reform of the SNB's constitutional basis, which adds new elements to the article proposed in the first referendum on constitutional reform. The new article has already been discussed in the

projects. One proposal submitted by the government is to set up a Solidarity Foundation to help individuals in Switzerland and abroad suffering hardship through no fault of their own. The Foundation would be endowed with 500 tonnes of gold. The return it could earn on its gold stock would provide it with the required financial means. A Foundation Act is expected to be dealt with in Parliament only after the comprehensive reform

Unlike most central banks which maintain strict secrecy, the SNB has a perfectly transparent strategy

Federal Parliament and is expected to be put to the vote in the spring of next year. Among its provisions, it stipulates that monetary policy should give priority to ensuring price stability.

As for gold reserves, the proposed article deals with the profits which the revaluation of the gold stock at market prices will trigger (about SFR 20 billion). In its message to the Parliament, the Federal Council (government) has come to the conclusion that 1,300 tonnes of gold – i.e. half of the gold stock – would no longer be necessary for monetary policy implementation and could be put to other uses, for which the Federal Parliament will have to set priorities and select

of the SNB's constitutional basis in spring 2000. If the Law on Currency and Payment Instruments is approved, the SNB will have increased latitude to manage the country's official reserves, including gold. The market interprets that increased latitude to mean that the SNB will sell part of its gold holdings. Unlike most central banks which maintain strict secrecy, the SNB has a perfectly transparent strategy for its gold policy. How and when the SNB will be active in the market is a question of short-term tactics. In any case, future transactions will take into account the market's ability to accommodate them. ■

The Physical Market

The LBMA Spring Seminar

India, the Middle East and China have at least one thing in common: they are key regions in the physical gold market. The local populations of all three have a strong attraction to gold. Why they buy gold and to what extent they will continue to do so formed the basis for discussion at the LBMA Fourth Annual Spring Seminar.

India, the world's largest consumer of gold, was the subject of the presentation given by Kamal Naqvi of Macquarie Bank. While in the past, difficult licensing arrangements and high duties led to the formation of a significant black market, over the past 2 to 3 years, the gold market has grown more liberalised, making consumption levels increasingly visible.

Gold appeals to Indians across all income levels, down to the poorest citizens. Unlike the West, in India rising levels of income have led to increased purchases of gold. For

the rural population, there aren't many alternatives. A local jeweller often acts as a pseudo-banker, as the holding of cash remains impractical. Precious metals often form the basis for barter transactions – a necklace might be swapped for a water buffalo.

There are rational economic reasons in India for gold's attraction as an investment. With India's high inflation levels, gold is a preferable investment to cash. It has been a good alternative to the property market, which has recently taken a downturn. And for those looking to conceal wealth, gold is not an easily traceable asset.

Naqvi concluded by examining which aspects of consumer demand are likely to shift and which are not, and how the government might deal with its concern that growing imports of physical gold place a strain on the country's foreign exchange reserves.

Together, the Middle East and China accounted for just over 900 tonnes of gold consumption last year. Mehdi Barkhordar of PAMP S.A. focussed on the differences between these two markets and what the likely influences for gold consumption in each of them will be over the coming years.

While the Middle East has played a key role in the physical gold market for the past 20 years, China's presence is relatively new. Before 1984, the Chinese gold market was closed to the outside world, and there are no reliable statistics for consumption. Since then, the market has opened partially, but the People's Bank of China still keeps tight control over many aspects of the market – mining, manufacturing and the distribution, wholesale and retailing of jewellery. Barkhordar examined the nature of these controls and what key changes could potentially have a huge impact on demand.

Demand is never static, and both speakers examined the potential for the three centres in the coming years – how the local economies will perform, what policies the respective governments will implement, and finally, whether consumer preferences and loyalties are likely to shift. ■



www.commodities-now.com

the whole picture

www.commodities-now.com

For more information on establishing a link, listing press or event information, submitting research or for a trial copy of Commodities Now magazine, contact Kerry Oldroyd on + 44 (0) 171 736 0774 e-mail: gish@dircon.co.uk

www.commodities-now.com - coverage of all major precious & base metals markets - data bank, daily market summaries, research papers, articles, press releases & annual events - the website of Commodities Now is only a click away.

La Coipa's Silver Lining

Turning a mine in Chile into one of the world's largest silver producers

By Hugh Leggatt, Manager, Corporate Communications, Placer Dome Inc.

Ranging over the Andean terrain, with its rounded mountaintops, sharp changes of altitude and blue snow-specked vistas, the haul road connecting the satellite silver deposit of Chimberos with the processing mill at the La Coipa mine stretches over 34 km.

At 20 miles, it is the longest truck haul in the Placer Dome Group. The road, constructed at a cost of US\$4.3 million, starts at 3,800 metres above sea level at the mill, reaches 4,650 metres at the summit and goes down to Chimberos at 4,200 metres. Each truck leaves the deposit brimful with 136 tonnes of ore destined for processing.

Packing 220 kg bars at the mill.



Although the Placer Dome-operated and 50%-owned La Coipa Mine in Chile had previously been best known as a gold producer, right now it has become one of the world's largest producers of silver. Silver, the unsung little brother of gold, is trading in the US\$5/ounce range, which is relatively high for silver, while gold is trading at about \$280/ounce, the lowest it has been in nearly 20 years. To make silver as good a revenue-earner as gold, you have to produce a lot of it, and that's what La Coipa is doing during 1998 and 1999 by mining the Chimberos deposit.

A Study in Concentration

There always was a lot more silver at La Coipa than gold. When the mine started

operations in 1991, La Coipa's gold reserves were 2.5 million ounces — contained in 65.6 million tonnes of ore with a concentration of 1.2 grams of gold per tonne. Yet the estimated silver content was 181 million ounces — contained in the same volume of ore with a concentration of 85.9 grams of silver per tonne. At the end of 1998, after more than seven years of operation, La Coipa's gold reserves now stand at 2.0 million ounces of gold, as well as 115 million ounces of silver, of which 18 million ounces are contained at Chimberos.

The Chimberos deposit was acquired in 1994 and a feasibility study was completed by La Coipa in 1996. Chimberos is a small but very high-grade deposit, which the feasibility study estimated to have 4.8

million tonnes of ore with a very high concentration of 305 grams of silver per tonne. The study showed the economics to be robust. Fortunate timing made the project more so, with silver prices higher than expected when production came on stream in 1998. Capital investment in development of the deposit was US\$27 million, US\$2 million under budget.

The Chimberos open pit mine is located in a mountainside 34 km by road from the La Coipa mill. Each round trip from mine to mill takes three hours of driving. Development started in 1997 and mining began in 1998. All of La Coipa's metal production in the last six months of 1998 and the first nine months of 1999 is coming from Chimberos.

In 1998, La Coipa enjoyed strong cash flow from operations — US\$44 million — thanks to the huge volume of silver being produced and the relatively high price it obtained on the market. As Placer is primarily a gold producer, production of other metals, such as silver, is measured in equivalent ounces of gold. La Coipa's 1998 output was 451,177 ounces, relying on a ratio of silver to gold determined by the London market price, currently about 52:17.

For example, 115 tonnes of silver bars (3.7 million ounces) were poured in one record month in 1998, which is equivalent in value to 2.2

tonnes (70,700 ounces) of gold bars. In the first half of 1998, the gold-silver split was about 60:40; in the last half, production was almost all silver.

Because of the much larger flow of metal through the refinery, La Coipa modified some of the equipment and enlarged the size of the furnaces. For the long hauls from mine to mill, La Coipa worked with suppliers to ensure the tyres and transmissions of the 150-ton leased trucks could handle the distances.

The Long Haul

For the haul truck operators, fatigue is the enemy. They make only four trips each 12-hour shift, so much of the shift is long-distance driving along a familiar road. They are permitted frequent rest stops and there is a pull-out with a cabin so that they can get out of the cab for a meal break. The truck cabs have radio contact with the dispatchers and operators can listen to the chatter or join in. There are also two commercial channels as well as tape decks to listen to while they keep their eyes on the road.

There are 126 operators working 12-hour shifts — four days on and four days off — with 32 drivers working 24 trucks on

each shift. Long-distance operator Hugo Astudillo says he feels connected to his machine. "I feel proud to be working with a company that has this long haul that is unlike other mines", he says. "The distances are no problem and I enjoy the work." Not all the drivers and trucks are making the long journey to the mill, as some are hauling and piling waste close to the mine.

In the refinery there's a lot more product to be seen than is usually encountered in a gold refinery, where small and heavy equals very high value. Each truck's 136 tonnes of ore contains about 40 kg of silver (a little more than the weight of one London good delivery bar). The chunks of ore are gradually crushed down into pebble-sized pieces. These pieces are then fed into grinding mills — large, rotating drums containing steel balls or rods — where they become ground down as finely as talcum powder. The powder is put into flotation tanks, where cyanide is used to separate the silver from the other materials. The metal is then melted and poured into huge 220 kg bars of about 80% silver, which are then stacked criss-cross on pallets before being packed in wooden boxes stamped with the Mantos de Oro logo for shipment to the world's refineries.

The Chimberos Mine: silver occurs at the very high concentration of 305 grammes per tonne of rock in this hillside.



Hugh Leggatt (left)

Superconductivity

According to the Silver Institute of Washington D.C., worldwide demand for silver has been robust at 863 million ounces, with demand growth coming particularly from industrial applications like electronics and photography.

And silver is playing a role in a revolutionary technology called superconductivity. Electricity flows without resistance through some materials if they are cooled to extremely low temperatures, meaning that cables made with superconducting wires can carry three to five times more current than conventional wires. Silver has been found to be the best sheath for the superconductive wires for several reasons: it is highly ductile; as a noble metal, it does not react with the superconductor; it is permeable to oxygen and it is highly conductive.

The process is still in the development phase, but shows great potential for widespread applications. Superconductivity could change the future of energy distribution worldwide and require substantial quantities of silver in coming years. ■

A 1966 graduate of Rhodes University in South Africa, he was a reporter with the Johannesburg Star for 13 years. After emigrating to Canada in 1980, he worked briefly for the Vancouver Province, then started a new career in corporate information with Cominco Ltd., a base metals mining and smelting company based in Vancouver. After six years, he moved to Director of Information Services with the Ministry of Economic Development of the Government of British Columbia, promoting business and trade. He joined Placer Dome in 1988 as Communications Specialist. As Manager of Corporate Communications since 1990, he is responsible for the full range of Placer Dome's public, media and internal information programmes, excluding investor relations.

ASIAN UPDATE

Long Scrap, Short Miracles

By Gold Fields Mineral Services Limited

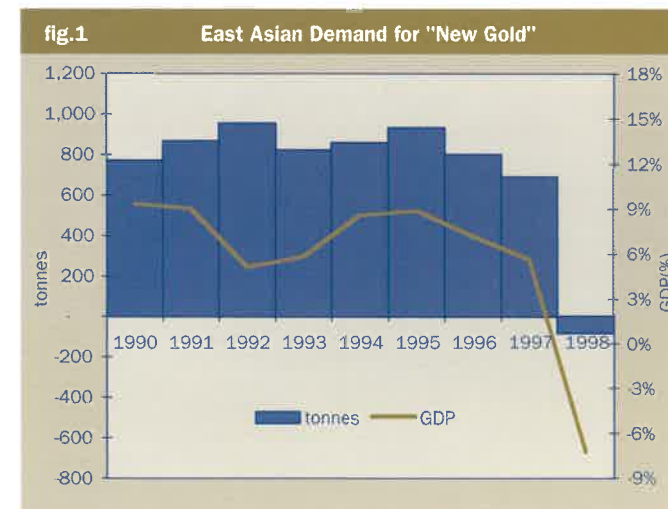
The economic crisis that has gripped Asia over the past year and a half has been nothing short of spectacular.

In few other areas was the devastating effect of the crisis more clearly seen than in its impact on the gold market.

In the late 1980s and 1990s, the "Tiger" economies were hailed as economic miracles, registering strong growth in a relatively steady inflation and high employment environment. High growth coupled to stable local currencies against the US dollar in countries like Indonesia and Thailand combined to stimulate gold demand, and from late 1980 up to 1997, new gold offtake in East Asia grew rapidly. From 1989 to 1997 alone, new gold offtake in the region (that is fabrication plus bar hoarding less scrap) amounted to well over 7,600 tonnes (excluding China). Circumstances changed rapidly in July 1997 in the aftermath of the collapse of the Thai baht, followed later, and more dramatically, by the free-fall in the Indonesian rupiah and the Korean won (see Figures 1 and 2). Most other currencies in the region weakened too, with the notable exception of the Hong Kong dollar and the Chinese yuan. In addition to the currency collapse, asset prices fell sharply as well.

Although the initial effect on the gold market was seen primarily in the collapse of demand, both sides of the supply and demand equation were eventually affected. The first effect was primarily price related, impacting directly on demand as local prices soared,

whilst the second was both price and distress related, and acted mainly on the supply side (although income shocks did of course reduce demand as well). In countries like Thailand and Indonesia, the collapse in local jewellery demand was almost total as local prices rose rapidly, but this was followed shortly by a wave of price and distress related selling of bars and old jewellery. The overall effect on the market in 1997 was relatively muted since the crisis had started in mid-year and only really took effect across the whole region relatively late in the year. Even so, new gold demand in 1997 from East Asia (excluding China) fell to only 690 tonnes, representing the lowest annual level for the decade to date. But it was not until 1998 that the real impact on the East Asian markets was felt.

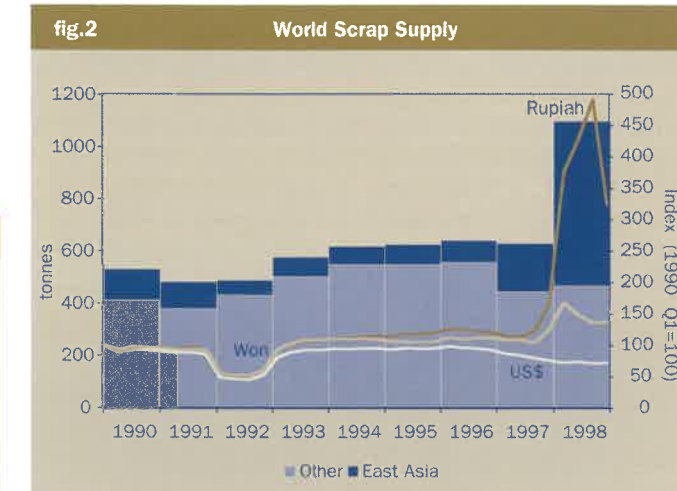


Scrap Floods the Market

The year opened with waves of selling out of the region, primarily out of Korea and Indonesia. South Korea made the single biggest contribution to world scrap in 1998. In fact, at over 300 tonnes, Korean scrap was equal to 27% of scrap supply or around 7% of total supply, a quite astonishing figure (in 1997, Korean scrap had accounted for a paltry 0.3% of total supply). Much of the scrap was collected in the first quarter of 1998, in response to the national gold collection campaign. The campaign was a huge collective effort co-ordinated by the chaebol (conglomerates), various banks and broadcasters to raise dollars to defend the won and save the economy. The response of the Koreans to the campaign was quite incredible – the 300 tonnes collected imply a per capita contribution of around 7 grammes (by contrast, a similar campaign in Thailand managed to collect a total of only a couple of hundred kilogrammes).

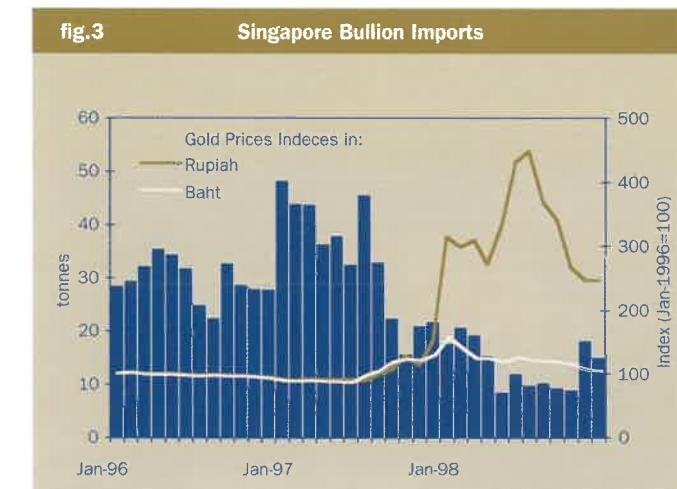
Scrap flows out of Indonesia in 1998 were also at unprecedented levels. GFMS estimates that over 200 tonnes of scrap were generated in 1998, but not all of this was shipped out of the country. Some was used to feed local fabrication demand. Indonesia, at times a heavy importer of gold, saw imports for the year fall to almost nothing. The motivation for selling scrap in Indonesia stood in stark contrast to Korea. In the latter, "patriotism" was certainly a driving force, whilst in the former, the selling was purely price and distress related. Scrap flows out

of Indonesia started in late 1997, but peaked in the first three months of 1998. The scrap flowing out of the country was in a variety of forms. Initially, jewellery was being melted down and semi-refined to 99+ quality and shipped out, but problems with customs meant that eventually very heavy pieces of crude jewellery were being exported. The major destinations for Indonesian scrap



were Singapore (for eventual shipment to various refineries around the world as well as being processed locally) and Hong Kong. From there, some found its way onto the local tael market and some was sent to China, where strong demand was seen, particularly at the beginning of the year.

Elsewhere in the region, scrap continued to flow out of Thailand in the first half of 1998 in spite of the crisis there being over six



months old. GFMS estimates that the total for the year fell by around 33% year-on-year, to around 50 tonnes, a level still far in excess of the average level of seven tonnes seen over the past 10 years. Much of the selling back of scrap in the second half of 1998 was distress rather than price related, as the baht strengthened against the dollar.



Decades of Buying Reversed

Scrap was not the only consequence of the crisis. In 1998, the region recorded net dishoarding (that is, gross purchases of bars were less than gross sales of bars) – the first time in 23 years that this has happened in East Asia. After years of consistently buying large volumes of bars, the Thais turned into net sellers in 1997 and 1998. Dishoarding was motivated by a combination of high local gold prices as the baht devalued and distress selling associated with the unfolding economic crisis. It is revealing that average levels of dishoarding increased in 1998 compared to the second half of 1997, suggesting that the economic shock waves really started to impact on the broader population at that time. Unlike the Thais, the Indonesians have never been great hoarders of bars, preferring to hold their gold in jewellery form. Consequently, dishoarding, both as a percentage of the total amount of gold coming out of the country and in absolute terms, was much smaller in Indonesia than in Thailand.

The effect of this on East Asian new gold demand was dramatic, and in 1998 the region became a net supplier of gold to the world market. To put this in context, in 1996, East Asia accounted for 25% of world demand and consumed 800 tonnes of new gold. To further illustrate the impressive nature of these flows, it is apposite to point out that the increase in scrap last year (which was effectively entirely due to the rise East Asian scrap) was equivalent to total central bank sales. The reader unfamiliar with the physical bullion business could well be left wondering how such large volumes of gold reached the international market as quickly as they did. The answer lies in the remarkable efficiency of the global banking and refining network – for example, gold coming out of Indonesia was transported, refined and delivered onto the London market in a matter of days.

Of course, demand in East Asia did not drop off entirely. In China and Hong Kong, the peg of the yuan and the Hong Kong dollar against the US dollar meant that they avoided the worst of the regional currency crisis, but even they did not emerge unscathed. Both recorded sharply lower new gold demand year-on-year as their economies slowed. Even in countries like Malaysia and Thailand, where local consumption fell away sharply, exports ensured that there was still demand for gold to be used in jewellery manufacturing.

The Asian Effect

What lessons can be learned from recent experiences in East Asia? The first is that gold has and will continue to play an important role in many Asian economies as a hedge. There can be little doubt that the effects of the crisis would have been worse if individuals had not held as much gold in high carat form as they did. The second is that the mobilisation of "near-market" stocks of high carat, low mark-up jewellery found extensively in the Asian region can constrain the price. In fact, it seems obvious to point out that the price in 1998, certainly in the first three months, would probably have been substantially higher in the absence of such huge flows. ■

GFMS (Gold Fields Mineral Services) is an independent precious metals consultancy specialising in the gold and silver markets. This article was compiled from "Gold Survey 1999", published on 21 April. The Gold Survey is widely acknowledged as the most authoritative source of information on the global gold market. Copies can be ordered from GFMS (tel: 0171-539 7820 fax: 0171-539 7818 email: gold@gfms.co.uk Web Site www.gfms.co.uk).

FT

FINANCIAL TIMES
ConferencesThe 22nd Annual FT

World Gold Conference

We invite you to register early for Europe's premier Gold event at which the following issues will be discussed:

- China: New Global Force in the Gold industry?
- India: Living with the Paradox of Liberalisation and higher Import Taxes
- The Practicalities of Marketing Gold
- Demand for Gold in Japan and the Far East - the prognosis for recovery
- The launch of the Euro and the ECB - the implications for Gold
- The restructuring of the bullion banking community - implications for credit availability and the lending market
- Currency volatility - its impact on both supply and demand for Gold
- Mining in today's price environment
- Asset allocation and conditions in the natural resources sector

DISTINGUISHED SPEAKERS INCLUDE

Mr James H Cross
Deputy Governor
South African Reserve Bank

Mr Jean-Pierre Roth
Vice Chairman of Governing Board
Swiss National Bank

Mr Chand Mehra
Director
Enchante Jewellery Limited

Ms Sarah Da Vanzo
Managing Director
Consolidated Bullion Limited
Chairman
GoldMoney

Mr Ouyang Wei
Editor
China Money

Mr Randall Oliphant
President and Chief Executive Officer
Barrick Gold Corporation

Dr Michael Folie
Managing Director
Acacia Resources Limited

Mr John Patitsas
Senior Vice President
Head of Precious Metals
Commerzbank International SA

CREDIT SUISSE FIRST BOSTON

anglogold

BAKER & MCKENZIE

PRICEWATERHOUSECOOPERS PwC

The 22nd Annual FT World Gold Conference
14 & 15 June 1999, Hotel InterContinental London

Please complete in block capitals

Mr/Mrs/Miss/Ms/Dr First Name

Surname

Position

Department

Company/Organisation

Address

City

Postcode

Country

Tel

Fax

E-Mail

Type of Business

FEES ARE PAYABLE IN ADVANCE

Please send me conference details

Please reserve one place at the rate of £895.00 plus UK VAT at 17.5% (£1051.63)
(Payments can also be made on Euros - please contact Iveta Saunders on +44 (0)171 873 4011)

Please note that as the conference is being held in the UK all registrants are liable to pay UK VAT at 17.5%. A VAT receipt will be sent on payment of the registration fee.

Cheque enclosed made payable to 'FT Conferences'

Bank Transfer to:

FT Conferences, Midland Bank plc,
City of London Corporate Office, Account Number: 71009095
Sort Code: 40-02-50, International SWIFT Code: MIDLGB22
(please quote delegate name as reference)

Please charge my AMEX/Diners/MasterCard/Visa with £

Card No

Expiry Date

Signature of Cardholder

I CONFIRM THAT I HAVE READ AND AGREE TO THE CONDITIONS OF CANCELLATION SPECIFIED BELOW

Signature

Date

Cancellation Policy: Cancellations must be received in writing by Monday, 31 May 1999, and will be subject to a 20% cancellation fee unless a substitute delegate is offered. After this date, the full registration fee will apply; however, substitutions will still be accepted.

Data Protection Act: The information you provide will be held on our database and may be used to keep you informed of our, and our associated companies', products and for selected third party mailings.

**To register NOW fax this form to us on: +44 (0)171 873 3067 or visit: www.ftconferences.com
FT Conferences, Number One Southwark Bridge, London SE1 9HL, UK Tel: +44 (0)171 873 3000**

Clips and quotes since the previous edition of the *Alchemist*

Gold Quotes

By one estimate, last year Indians spent more money on gold than on cars, two-wheeled transport, fridges and colour televisions combined.

India's golden tariffs, *The Economist*, 16 January 1999

Germany may back plan for sales of IMF gold
Financial Times, 3 February 1999

Anglogold lifts profit despite weak price
Financial Times, 4 February 1999

Indaba Mining Conference: Plan to buoy gold price
Financial Times, 4 February 1999

Out-of-Fashion Gold Regains Some Glitter as U.S. Markets Fall
Wall Street Journal, 15 February 1999

Gold Demand Reached Record in Fourth Quarter, Producers Say
Wall Street Journal, 18 February 1999

Gold – Import Surge Alarms India Leaders
Wall Street Journal, 22 February 1999

Gold Sales From Private Hoard Keep Lid on Price, Analysts Say,
Wall Street Journal, 22 February 1999

Growing appreciation for gold in 1998,
Financial Times, 23 February 1999

Fall in gold production costs of 17%, *Financial Times*, 2 March 1999

Swiss National Bank Considers Moving Some Assets into Shares,
Wall Street Journal, 2 March 1999

Indian budget scheme to attract 'idle' gold
Financial Times, 3 March 1999

China urged to boost gold reserves, *Financial Times*, 10 March 1999

Clinton urges IMF to sell gold, *Financial Times*, 17 March 1999

ECB urged to restrain gold sales, *Financial Times*, 18 March 1999

IMF sales fear tarnishes golds, *Financial Times*, 23 March 1999

Newmont puts brave face on Batu Hijau prospects
Financial Times, 25 March 1999

Gold Continues to Lose Luster in Europe
Wall Street Journal, 29 March 1999

Gold Prices Face a Downswing On Short Selling, Stronger Dollar,
Wall Street Journal, 29 March 1999

Gabriel in search for mining angel, *Financial Times*, 30 March 1999

Another time, another gold rush, *Financial Times*, 31 March 1999

Gold, Copper Producers in U.S. Expected to Post Lower Earnings
Wall Street Journal, 6 April 1999

Gold rises on jump in short positions
Financial Times, 13 April 1999

Swiss set to abandon gold standard, *Financial Times*, 16 April 1999

Among the changes proposed is the breaking of the link between the Swiss franc and the nation's 2,590 tonne gold hoard: equivalent, in icon terms, to taking an axe to the cuckoo clock.

Swiss Gold – Economic Agenda, *Sunday Telegraph*, 18 April 1999

Silver Spot

Since just after Christmas, the silver market has been visited by the ghost of rallies past.

Silver's Rally Is Reminiscent Of Last Year's Buying Frenzy
Wall Street Journal, 11 January 1999

Apex Silver seeks \$300m funding for San Cristobal
Financial Times, 28 January 1999

LME outlines plan for new silver contract
Financial Times, 4 February 1999

Silver rise spurs talk of fund buying
Financial Times, 6-7 February 1999

Silver suffers sharp drop in New York
Financial Times, 17 February 1999

Silver: Prices expected to reach \$7.50 this year
Financial Times, 24 February 1999

Warren Buffett Report Offers Few Clues on Silver Holding
Wall Street Journal, 15 March 1999

NEW FUTURE IN KOREA



KOFEX OPENS FOR BUSINESS

KOFEX, the new Korean Futures Exchange, opened for trading on 23 April.

Initial products are USD/KRW currency futures and options, KRW CD futures, and gold futures. It is planned to add new products as and when market interest develops.

The exchange is located in Pusan, some 200 miles south-east of Seoul, although all 11 of its members are in the capital. It is felt that due to the electronic nature of trading, the differing locations should not pose any problems. KOFEX is relying on state-of-the-art technology from the Options Market of Sweden to make the new exchange one of the most advanced in the world.

The commodity market in Korea is somewhat underdeveloped, and the decision to list commodities on the exchange is complicated by the need to fix a standard product and decide on a distribution network. Gold was chosen because there is a strong interest in it among the general public, and it was relatively easy to decide on a standard – a 99.99% kilo bar.

Not only the direction but also the extent to which central banks lend their gold is not known with great precision... it is important that some authority has an oversight of the situation. I would propose that this role should fall to the BIS in Basle, and it would be an appropriate issue for the new Financial Stability Forum proposed at last month's G7 meeting. Central banks involved in the gold leasing and swaps markets should agree to make regularly quarterly returns to the BIS of the amounts and maturities that they have outstanding to individual counterparties, so that the size of, and exposures in the market can be accurately measured. As a further contribution to transparency these central banks might be

The main participants in the market are:

- Trading firms, which import gold ore and export it after reprocessing, and sell gold bars to wholesalers such as Samsung, Daewoo, LG and SK.
- Wholesalers, which sell gold to retailers and jewellers
- Black market retailers, which provide 60% of total gold demand
- Others – industrial companies (e.g. electronics) and dental suppliers.

Unlike other countries, gold is classed as a general commodity in Korea, and the government imposes an import tax (3%) and a value-added tax (10%), contributing to the existence of an active black market. At present, members of the national assembly and other authorities are seeking to reduce or eliminate the taxes on gold.

The table below shows trading volume for gold on the official market in kilos:

Year	1992	1993	1994	1995	1996
Import	32,084	34,435	58,336	217,102	424,381
Export	22,687	26,346	48,350	197,668	424,268

(Official vs. unofficial volume is approximately 4:6) ■

encouraged to include their gold lending in their balance sheets. The BIS itself is of course an active participant in the market and it would be essential that a strict system of Chinese walls was maintained between the operational area of the bank and the statistical functions – but they are well used to handling these matters in Basle.

– Terry Smeeton, Non-Executive Director, Standard Bank London Ltd
The Gold Institute Annual Meeting, Arizona, 30 March 1999

Bosnia or Bust

A year after his first charity mission to Bosnia, Neil Newitt returned, together with eleven other volunteers. Forming an aid convoy of six Land Rovers and five trailers, the group transported 13 tonnes of aid across Europe during the coldest winter in twenty years. They entered a war zone under three feet of snow with temperatures as low as -25C.



Their agency, the Bosnia Aid Relief Foundation, seeks to provide economic aid to help re-start an economy that currently has 90% unemployment. They focus on re-equipping schools and providing tools for Bosnians to start their own small businesses. Thanks to their efforts, four schools and a nursery school are now fully operational. They left copious amounts of warm clothing, blankets and toys with the American Refugee Committee and the British Army for distribution to the local communities.



The following is an excerpt from Neil's journal:

Monday 7 December 1998

At around 3 pm, we were finally cleared by Customs and made our way back to the base.

We then set off for Volari, going via the Shoe Factory to unhitch the trailers, to see the old man we had met last year, who had told us the sad story of how all his blacksmith equipment had been looted by the retreating Croat/Muslim forces. The forge is up a narrow track which was covered with icy, compacted snow and very steep. The old man was delighted to see us and to realise that we had kept our word to come back to see him. He was quite overcome when we unloaded the forge from the roof rack and the anvil from the bonnet of Paul's 110 – no easy task due to the weight and the icy conditions. He became very emotional, scuttled off and came back with the inevitable bottle of home made Slivovitz and began to liberally dispense the dreaded alcoholic 'bomb'. Slivovitz is an unbelievably strong brandy with an equally unbelievable taste. It is hard to believe it is drunk for pleasure – it is known to the Army as 'sleep in a ditch'. ■

JM Johnson Matthey

Top Marks

Gold and Silver refining,
a local presence on a global scale.



Tel +852 2738 0380
Fax +852 2736 2345



Tel +44 (1763) 253000
Fax +44 (1763) 253821



Tel +1 (801) 972 6466
Fax +1 (801) 974 5928



Tel +61 (39) 465 2111
Fax +61 (39) 466 2154



Tel +1 (905) 453 6120
Fax +1 (905) 454 6849

Truth and Statistics

MARKET COMMENTARY 11 MARCH, 1999

A racy read it isn't. But for a few moments when it flops on to the analyst's desk each month the IMF's International Financial Statistics is obligatory study. We hurry past all the worthy stuff on definitions and economic indicators, rarely look at the country detail, but stop at the table showing gold and currency reserves for Fund members.

This is the only comprehensive guide to the changing state of official bullion holdings around the world. It is incomplete, since the obligation of Fund members to report their reserves accurately and punctually is only lightly enforced. It seems they don't have to have their numbers in print if they don't really want to. And there are inconsistencies in the way the IFS presents its information. There seems to be a muddle, for example, over

www.virtual-gold.com

how to report gold reserves which have been lent, swapped or pledged as collateral. Still, it is the best we have. And there are moments of excitement (well, interest) when an unreported deal is suddenly revealed. Because the bullion market has become transparent and analysts are better at reading the signs such incidents are rarer than they used to be. But we live in hope.

For a second or two those hopes might have been aroused by the March edition of IFS. This shows a sharp rise in the reserves of most European Union countries in December. And of those reporting January figures several show a drop. There is, perhaps fortunately, nothing untoward going on. The increase in December simply reflects the return of gold to its members on the dissolution of the European Monetary Institute (EMI). And the falls in gold holdings the following month match the expected contributions to the European Central Bank (ECB) by its start-up members. Thus German reserves fell 7.46moz in January, in line with Germany's 232 tonne share of the ECB's dowry of 747 tonne. And this seems to be the case for the other countries reporting their January positions to the IMF – Belgium (down 0.87moz) and Portugal (down 0.59moz).

The other thing to watch out for in the IFS is misprints or misreporting. Recent examples have had Canada suddenly reversing the policy of over a decade and adding to its gold holdings. And not that long ago there was a startling jump in the gold holdings of Pakistan, a country more often strapped for cash to pay for imports and service debt than indulging in gold-buying binges. This month the IFS has come up with a particularly ludicrous misprint, showing the UK with just 0.02moz of gold instead of the 23 million ounces we should be looking at post-EMI, or even the 18.4moz we have seen for so many years.

At least, we trust this is a misprint...

Truth and Statistics II

MARKET COMMENTARY 8 APRIL 1999

Is the IMF's monthly statistical publication being put together by someone with a nice line in irony? At the very moment when the gold market is burdened by thoughts of central bank sales, April's International Financial Statistics – out this week – shows world gold holdings jumping from 1,076.1moz in October to 1,138.7 million ounces at the end of January. Indeed they appear to have reached 1,162.3moz at the turn of the year, a rise of no less than 86.2 million ounces in the closing weeks of 1998.

Fortunately, with the IFS, errors are usually more cock-up than conspiracy. Signs are this month is no different. Centre of the muddle is the picture in Europe. Or if it's not muddle it is inconsistency. We have Austria's reserves leaping from 7.72 million ounces in November to 13 million ounces in

January, their highest level in nearly four years.

And we have Portugal enjoying reserves only just off their all-time record in February, having apparently handed over almost nothing to the European Central Bank in January. Now we know Austria did a lot of swaps, and Portugal

also. So if they have both unwound all these positions, that could explain some of the rise in reserves of both these countries. Snag is, there was a time (we think) when swaps were not supposed to be taken into account in reporting bullion reserves.

Anyway, that doesn't get us anywhere near the apparent rise in world gold holdings. What has almost certainly happened is that the gold handed back to members when the EMI was replaced by the ECB has been credited to those members, but not netted off the assumed reserves for the EMI/ECB. We keep hoping that as the months pass the picture for Euroland will settle down. So far it's got worse.

Out in the emerging markets there are some revealing changes. After reporting a steady recovery in gold reserves since it had to mobilise 3-4moz last summer, Russian holdings have slid back again – from 15.14moz in January to 13.84moz in February. This looks plausible (though it is probably swaps) and it probably continued last month. Russia's reserves have been under strain, and a rather high proportion is gold. Brazil shows an even more startling fall, from 4.6moz in December to 1.49moz in January. Again this is probably swaps, and again the downtrend may have continued, though in recent weeks the situation has steadied and the drain on the reserves slowed.

To be fair to the IMF on its reporting problems, it is probably being fed some pretty dud numbers. Something seems to be happening about this at last. On 26 March the Fund put out a press release about steps to strengthen its Special Data Dissemination Standard (SDDS), including a reserves data template. Apart from a requirement to include loans in the asset statement, there is not very much about gold in the guidelines. But there will perhaps be a greater consciousness of the need for consistency in reporting, whatever form the reserve asset takes. The SDDS is intended for use by countries seeking access to international financial markets, and, surprisingly, it is voluntary. But it is at least a step in the right direction. ■

These essays, by Tony Warwick-Ching, are taken from the website
of Virtual Metals Research and Consulting Uk Ltd

LBMA MEMBERS SPEAK OUT & ABOUT

In 1999 however, it looks as though the main story will be about the actual sale of gold by the IMF... The question is what steps should be taken to ensure that the sales are successful, producing a good price and not disrupting the market?

Last time [the sales] were spread over four years. This time,... the amount will be smaller and therefore less time will be needed... I have suggested one to two years, but it could be shorter... with one condition: that no other official sales should take place concurrently with those of the IMF.

...I believe that the ECB should now consider giving a commitment not to sanction any sales during the period of the IMF auctions. It is true that a

number of national central banks have said that they have 'no plans' to sell gold but that market needs more than that. When the market hears the phrase 'no plans' it remembers governments which have had 'no plans to devalue' and 'no plans to increase taxes'.

...The question posed today by this conference is 'Gold – a new equilibrium?' In my view the market is not so much in equilibrium as in a state of suspended animation. It is up to the central banks. It is with them that the decision lies.

**- Robert Guy, NM Rothschild & Sons Limited
ABARE Conference, Canberra, Australia, 17 March 1999**

What we are seeing is increased segmentation in the market, with some participants more active in physical bullion and consignment operations, and others more active in hedging operations and financing facilities for producers... With fewer dealers in fewer institutions, market-making becomes more difficult and lending limits and inter-bank liquidity are affected... in effect, a market reaction, driven by the cost of overheads, to weaker market conditions – lower demand in the Far East and weaker investment demand... Does it also mean greater volatility in the market? Does it mean a reduced ability to do large hedging operations, a reduced capacity to absorb large deals?... Like the optimistic central banker (if such a person

ever existed) – defined as someone who takes the view that the world is clearly coming to an end, but only slowly – I would tend to take the optimistic view that market services providers will adjust and adapt to meet client needs. If clients can at the same time adjust their demands somewhat, so much the better!

**- Chris Elston, The London Bullion Market Association
Gold & Silver Institutes
Annual Conference, Arizona, 30 March 1999**



Editorial comment by Peter Fava, Chairman, LBMA

Why should you join the LBMA?

A question I am frequently asked and one I expect to be asked more often as we open up membership to "Overseas Associates". The answer is not a short or an easy one. The work done by the Association – both its full time staff and the committees – affects every facet of the market. All members have a chance to become involved to a greater or lesser extent, to voice their opinions about what concerns need to be addressed.

Those who become members of our various committees put in many hours in addition to their full time jobs in the market – in fact, the Physical Committee has recently begun to meet twice a month in an effort to clear their backlog of work.

Much of the work is done in the background before the final results are seen by the market. A typical example is the great amount of time that was put into advising HM Customs and Excise on VAT unification proposals, which resulted in the removal of VAT throughout the European Community on investment gold from January 2000. Our thanks to Dorothy Williamson and all her team from HM C&E for their efforts on our behalf.

During the last year, the Management Committee of the LBMA has been involved in restructuring the Association, to take into account changes that have taken place since it was formed ten years ago. Probably the most important change was the establishment of the Financial Services Authority as our new regulator. This has resulted

in our having to take more responsibility for the Association's actions. To this end, we are rewriting the constitution and will in the near future produce a rule book. Members will be expected to sign up to this rule book and adhere to it.

The Association's efforts to improve market standards continue. We are now looking into a uniform contract for both Forward Rate Agreements (FRA) and Interest Rate Swaps (IRS). The GOFO committee are reviewing procedures over the next few months, and they will seek ideas from the market at large.

To learn more about the Association, visit the LBMA web-site, now nearing completion. WWW.lbma.org.uk contains full details of our structure and organisation. It will eventually contain gold and silver fixing prices as far back as the days of the quill pen (in the meantime it goes back to 1977). It also has details of the current and former Good Delivery Lists. This will be updated as each change takes place.

That's the real reason to join the LBMA. The precious metals market is constantly evolving. You can be part of that change. ■



LBMA News

By Chris Elston, Chief Executive, LBMA

Membership Changes:

● Lehman Brothers International (Europe) resigned their Ordinary Membership on 31 December 1998.

● Barclays Bank Plc have moved their bullion trading to:

Barclays Capital Commodities
5 The North Colonnade
Canary Wharf
London E14 4BB

Good Delivery List

Additions:

Silver
Russia - JSC Ekaterinburg Non-Ferrous Metal-Processing Plant.
- Federal State Enterprise Novosibirsk Refinery

both with effect from 7th April 1999.

Name changes:

Gold

Australia – With effect from 11 January 1999 until further notice, bars from Golden West Refining Corporation Limited and Western Australian Mint trading as Australian Gold Refineries, both of which remain separately listed for the time being, will be produced under the name of AGR Joint Venture and all Good Delivery bars will bear both set sets of marks.

Gold and silver

Korea, Republic of – LG. Metals Corporation is now listed as LG. Industrials System Ltd, following a merger. The marks remain unchanged.

Committees

Management Committee

● The main focus of the Committee's work recently has

been on producing the revisions to the Constitution which were voted on at the Extraordinary Meeting held on 2nd February. It is intended that the revised Constitution will be available for Members to vote on at the Annual General Meeting, which is currently scheduled for the end of June.

● Peter Fava, LBMA chairman, will be speaking at the Financial Times World Gold Conference on 14-15 June. His topic will be developments in the London Bullion Market.

Public Affairs Committee

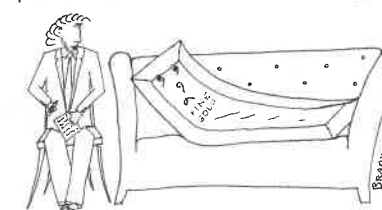
● The PAC, among other things, is busy overseeing the arrangements for the LBMA's Reception to mark the FT World Gold Conference. This will be on Sunday 13 June at The Wallace Collection, Hertford House, Manchester Square, London W1.
● Bob Davis (Chase) has resigned from the PAC on his forthcoming move to Sydney. A "Situation Vacant" ad has been circulated to seek a volunteer successor.

Physical Committee

● The PC has issued letters inviting applications to join a new list of LBMA Approved Weighers.
● Detailed work is progressing on the proposed automated Matching System.
● With the completion of new Allocated and Unallocated Accounts Agreements, it is proposed to incorporate them with the Market Practice Agreement and the Letter of Understanding into a single all-embracing document for use by the clearing Members.

Membership Committee

● With the retirement of Robert Ashley (Rothschilds) and an expected increase in the Committee's workload, the opportunity has been taken to appoint two new members. Out of six applicants the Committee elected John Coley (Brink's Limited) and Murray Ludlow (Republic National Bank of New York. ■



"So then, how long have you been feeling this depressed?"

DIARY OF EVENTS

22-23 February 1999

5th Australasian Mining Conference, Perth, Western Australia, sponsored by AIC Worldwide

2-5 May 1999

Annual General Meeting, Canadian Institute of Mining and Metallurgy, Quebec, Canada.

6 May 1999

Metal Bulletin's Silver Markets Seminar, The Baltic Exchange, London.

20-21 May

World Gold Council Annual Meeting, Langham Hilton Hotel, Portland Place, London W1

27 May 1999

LBMA Annual Golf Day, Brickendon Grange Golf and Country Club, Near Hertford, Herts.

2-3 June 1999

N.E. Investment in Mining Conference, New York, sponsored by International Investment Conferences

9 June 1999

Understanding the 1992 ISDA Master Agreements - The Langham Hilton - London

17 June 1999

Understanding the 1992 ISDA Master Agreements - The New York Palace - New York

13 June 1999

Keys to Success in Latin American Mining, Keystone, Colorado. Institute of the Americas

13 June 1999

LBMA Cocktail Reception, The Wallace Collection, Hertford House, Manchester Square, London W1.

14-15 June 1999

The 22nd Annual Financial Times World Gold Conference, Hotel Inter-Continental, London.

14 September 1999

Gold Fields Mineral Services Ltd - Precious Metals Seminar - Plaisterers' Hall, London Wall, London EC

16 September 1999

Gold Fields Mineral Services Ltd - Precious Metals Seminar - NYMEX, World Financial Centre, New York

The *Alchemist* is published quarterly by the LBMA. For further information please call
Susanne M. Capano, Editor,
Chris Elston or Stella Thompson
LBMA Executive
6 Frederick's Place
London EC2R 8BT
Telephone: 0171 796 3067
Fax: 0171 796 4345
Email: alchemist@lbma.org.uk

Given the freedom of expression offered to contributors and whilst great care has been taken to ensure that the information contained in the *Alchemist* is accurate, the LBMA can accept no responsibility for any mistakes, errors or omissions or for any action taken in reliance thereon.

gold
silver
highs
fixes
lows

www.lbma.org.uk

averages
products
services
good delivery

opening 31st March 1999 on screens everywhere

The London Bullion Market Association
6 Frederick's Place
London EC2R 8BT
Tel. +44 (0) 171 796 3067
Fax. +44 (0) 171 796 4345
email. mail@lbma.org.uk

www.lbma.org.uk
an online goldmine



LBMA