

October 1997

# A River Ran Through It

Editorial Comment by Susanne Capano

## The Gold Rush vs. the Bank of England

**"The Bullion Office at the Bank of England was sometimes flooded with gold. To meet the difficulty as to getting through the work, the Bank sent to Hatton Garden..."** *Edward Matthey, as recorded in his Memoirs*

In 1852, the Bank wasn't the only organisation whose work brought it to Hatton Garden. The recently named Bobbies were there in force, their attention and whistles drawn by such local entrepreneurs as the Artful Dodger, Oliver Twist and other residents of Fagin's den. Being pickpockets, their story was, quite literally, touching, and one of several that Charles Dickens set in the area. History was set there, too. Over three days in 1531, Henry VIII and Catherine of Aragon dined on swans stuffed with larks stuffed with sparrows. Today, on that very site, you can dine on more up-to-date fare at the Bleeding Heart Restaurant, off Greville Street. For more on the colourful history and sparkling present (there are 30 jewellers there), see *The Golden Age of Hatton Garden*, page 9.

**The Gold from Ipanema** – From the California Gold Rush we move on to the oldest gold mine in the Americas. It happens to be in Brazil where, before Sutter's Mill and hard-wearing Levi's, there were *garimpos* and *garimpieros*, local miners whose fashion statements included candles perched atop their heads. But it took some time to regulate every aspect of a far-reaching market. See *Casting Brazil's Golden Rules* on page 7.

**Producers Take Action. Take Note** – What with existing mines being forced to close due to recent economic realities and new mines (read Bre-X) being abandoned due to physical realities (phantom gold), it's been a rough ride for producers of late. Hester le Roux of GFMS analyses near-term strategies for a turnaround in *Challenges Facing the Gold Producing Industry*, beginning on page 4.

**Quick Study** – In this issue we begin a new feature called Quick Study, on page 14. In it, we take a specific product, in this instance, a Gold-Linked, Cross-Currency, Interest Rate Swap, and make it as understandable as something with a name like that could be. Peter Hillyard of Bank of America is our first contributor.

**Oracle** – Reuters TV recently scooped the *Alchemist*: they interviewed LBMA Chairman Peter Fava (first). If you didn't catch it, our second new feature will catch you up on past and planned appearances by LBMA members. See for yourself – you may even see yourself – on page 3. And for our interview with the Chairman, see page 2. ■



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# An interview with Peter Fava LBMA Chairman

by Susanne Capano, Editor

**The LBMA celebrates its 10 year anniversary this year. What would you say are the most important contributions the Association has made to the Market as a whole during its history?**



All the important contributions have one thing in common – they provide the entire range of market participants reliable benchmarks for day-to-day trading activities. The applications cover virtually every sector: trading in spot and forwards, market turnover, documentation and calibre of physical metal. Some of these standards now predate the organisation – such

as the daily Gold and Silver Fixings or London Good Delivery Status. But, as the Market's needs and priorities shift, there is an ongoing need for reliable new references and the LBMA has stood ready to meet these challenges.

A booming gold forward market in the late 1980s lead to calls for a fair benchmark, in response to which the LBMA created the composite GOFO page on Reuters in July 1989. More recently, market participants have additionally sought a direct measure for gold lease rates, in response to which we added the mid-rate levels shown on LGLR in January of this year.

January marked an even more important release: clearing turnover statistics for London gold and silver. Interestingly, the high volume of turnover surpassed even some of the more optimistic estimates. To me, this not only confirms London's importance as a gold clearing centre, but proves that the gold market as a whole is still thriving.

## How have the services to members evolved?

Member services have greatly expanded, especially in recent months as the Association's public profile has risen. Regular seminars, the Biennial Dinner, and the LBMA Disco have this year been joined by our first overseas function, the Hedging Debate in Johannesburg. Two years ago, we appointed a Chief Executive, who welcomes contacts from members and views on how they can best be served. The *Alchemist* has grown into a well-received worldwide publication open to input from all Market participants.

## Looking ahead then, what are your plans for the LBMA in the coming months?

Generally speaking, we plan to modernise and update all office equipment to aid in more efficient communication with members. A key part of this will be the development of a web-site, which will provide background information, list upcoming events and facilitate the retrieval of historical data, as well as the added convenience of contacting us via e-mail. And *Alchemist* readers will eventually have the option of receiving this publication on-line.

The Physical Committee is working to computerise clearing operations to increase speed and efficiency and minimise errors, while still maintaining confidentiality.

Looking towards external relations, we look forward to working with our new supervisors, the SIB. On the 28th of this month, I am attending the launch of NewRo, on behalf of the Market. At the same time, we seek to retain our long-standing good relationship with the Bank of England.

The Association stays in close contact with HM Custom and Excise over EU VAT harmonisation and the progress it is likely to make on this during the UK's presidency in the first half of next year.

We would like to have closer ties with other market organisations – in particular, the London Platinum and Palladium Market, but also the London Metal Exchange and Comex/NYMEX. Regular meetings and discussions between our organisations would help promote the open and fair practices all markets require in order to thrive and grow.



SOMETHING IN GOLD ... ?

## Recent media coverage has referred to gold as "a non-interest bearing asset" whose usefulness to Central Banks as a reserve asset has become outdated. What response would you make to that?

Any reference to gold as a non-interest bearing asset ignores the fact that lenders of gold to the Market have been receiving a rate of return for some time that compares quite favourably to rates paid for some currencies, such as the Swiss Franc and Yen. If a holder of dollars never lent them out, that institution would not be paid any interest, but that would not qualify dollars as non-interest bearing.

As regards gold's usefulness as a reserve currency being outdated, it is worth remembering that after EMU there will be a drastic reduction in the number of foreign currencies available. Gold, with its intrinsic value and importance – the asset which is no one's liability – can add an important element of diversification in a portfolio.

## What impact do you think EMU will have on gold?

Once the European Central Banks enter EMU, they will no longer have a need to adjust their debt ratios to meet Maastricht requirements, so the perceived pressure for individual banks to sell gold will be eliminated. At that stage, final membership in the single currency will be known, and the members involved will begin to discuss the composition of the new Central Bank. Only after these discussions are completed – according to schedule, that will be in mid-

1998 – will the question of gold first arise. No rules are set yet, and will not be set for the first half of 1998.

## How would you interpret the recent release of a Swiss proposal by a panel of experts recommending the sale of approximately half of the country's gold reserves?

Any decision to act on the panel's recommendation must be made by a plebiscite in 1999. Unless the government can demonstrate to the public that it will definitively benefit not only the poor of the world, but also the poor of Switzerland, there is very little chance of this being voted in.

## PETER FAVA

Peter Fava's appointment as Chairman of the LBMA in May of this year was the latest move in a bullion-trading and money market management career spanning 25 years.

Prior to accepting his current assignment as Head of Precious Metals at Midland Bank in 1993, he spent eight years at Alexanders Discount plc – part of the Credit Lyonnais Capital Markets Group – where he was Managing Director responsible for portfolio management.

Earlier experience includes two years as Chief Dealer Money Markets at Caisse Nationale de Credit Agricole and 10 years as Manager of NMR's Bullion and Sterling Treasury desks. He has also held bullion trading positions at Merrill Lynch, Johnson Matthey and Lloyds Bank.

"When I joined Johnson Matthey in 1970, I was given the choice of working in either bullion or foreign exchange. And I have never regretted choosing bullion." ■

## LBMA MEMBERS SPEAK OUT & ABOUT

In this new feature, we present brief quotes from recent speeches by LBMA members, followed by a schedule of upcoming speaking engagements.

### World Gold Council Gold Banking Seminar 2 - 3 August, New Delhi, India

"When considering what role the central bank should play in any newly established market, there is a presumption in favour of a central bank not doing what the market can do better by itself. The central bank is perhaps best kept in reserve, as a facilitator or a forum for discussion and ideas." Chris Elston, LBMA *Regulatory and Economic Concerns: An International Viewpoint*.

"The most important question regarding gold for investment purposes after liberalisation is the taxation regime. The decisions on what taxes to implement and what percentage to charge on these products are therefore important factors in determining the success or otherwise of gold as a personal investment in Italy." Ian J. McCannah, Bank of Nova Scotia *Gold Reforms Through Banking: Lessons from Italy*.

### Gold Fields Mineral Services Gold Market Seminar 12 September, London

"Precious metals refining is an industry which, when viewed on either a regional or a global basis, shows considerable overcapacity. Despite this, the Physical Committee currently has nine refiners progressing through the various stages of London Good Delivery acceptance trials. It is notable that the pattern of new applicants is heavily slanted towards emerging economies, where precious metal refineries are often closely aligned with mines in the region and ultimately with the sale and export of precious metals." Peter L. Smith, Morgan Guaranty Trust *Company Perspectives on Gold and Silver Refining*.

## UPCOMING ENGAGEMENTS

### City Forum Limited

Sixth City of London Central Banking Conference  
London, 17-18 November  
Session: Central Banks and the Management of their Reserves

Robert Guy, NM Rothschild:  
Moderator  
Martin Fraenkel, Chase Manhattan:  
Panel member

### Adam Smith Institute

Second International Conference on Commercial Opportunities in the Gold and Diamond Industries of

Russia and the Central Asian Republics  
London 20-21 November  
Peter Fava, HSBC Midland,  
Chairman LBMA: Chairman on day one. Robert Guy, NM Rothschild:  
Chairman on day two

## Asociacion Venezolana del Oro

IV International Gold Symposium Caracas, Venezuela 23-25 November  
Kevin A. Crisp, Morgan Guaranty Trust Co., and Robert Guy, NM Rothschild: "Gold in the New World Context"





# Challenges Facing The Gold Producing Industry

by Hester le Roux

## A moody index

The prevailing mood in the gold producing industry can generally be gauged by those phrases that appear most frequently in producers' annual and quarterly reports and press releases.

### Favourite phrases, January 1997:

- "... company poised for growth"
- "... promising drill results on a property a mere stone's throw away from Busang"
- "... resources (proven, probable & improbable) expanded by 52% during the year"
- "... planning to list on the TSE"

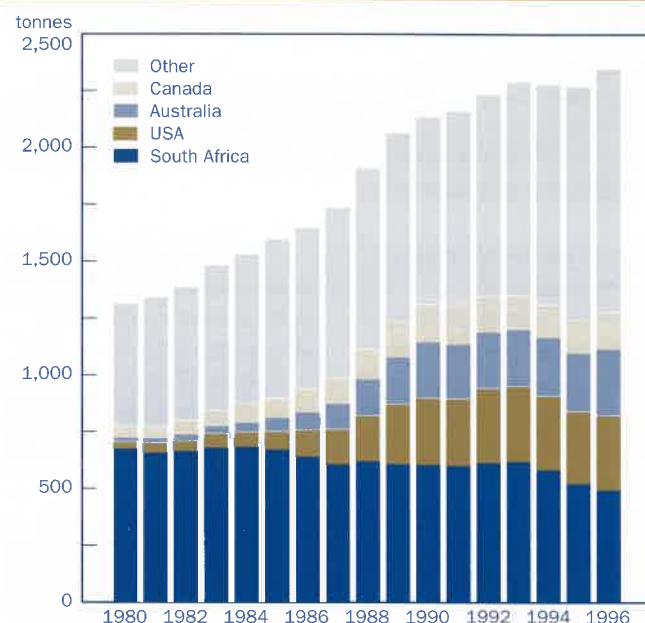
### Favourite phrases, June 1997:

- "... company is well-hedged, protected from further price falls"
- "... pleased to report lower costs"
- "... all drill samples have been checked and double-checked by competent persons"
- "... exploration efforts continue in" (any country but Indonesia)

### And, increasingly, by August 1997:

- "... writing down \$100 million in assets"
- "... redefining reserves based on lower prices"
- "... closing the maturing mine prematurely"
- "... unfortunate retrenchment of 200 employees"

Fig. 1 World Gold Mine Production



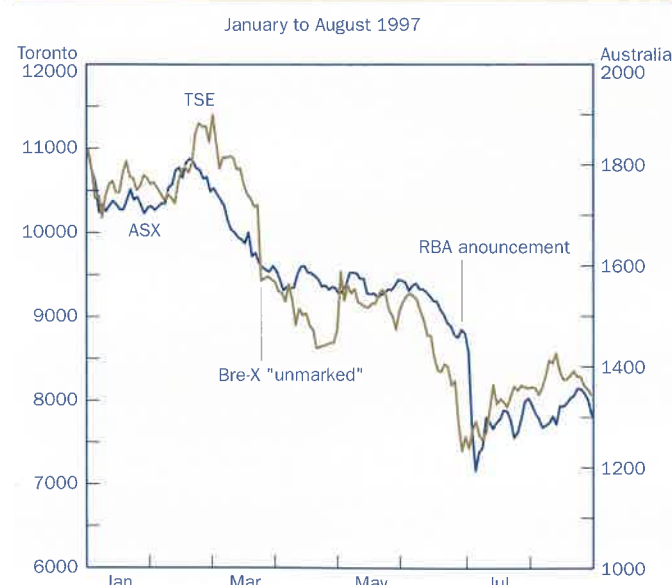
In contrast with the frequent predictions of a boom in mine production earlier this year, market commentators have been suggesting in recent weeks that the gold price would be 'rescued' by a supply deficit resulting from a decline in mine production.

In order to appreciate how and why the situation has changed, one should consider what the position was at the beginning of the year, and where the expectations of a boom originated. The first signs of renewed growth in gold mine production could be seen last year when, after two years of decline, global output increased by over 3% to reach its highest level ever (see Figure 1). A number of factors were responsible. Exploration budgets have been growing steadily

over the last few years, while advances on the technological front have made it possible to explore more efficiently. The geographic area open to

geologists has widened. Political and economic risk appeared to be declining in several regions which had previously been regarded as unsuitable investment destinations. At the same time, many countries reviewed their mining laws to lure explorers and miners to their shores. As the world opened up and exploration efforts intensified, so too did the stories of success and instant riches, and the market's appetite for risk increased in commensurate degrees. Record amounts of capital were raised on the stock exchanges of the world last year. Lastly, pressure on producers to increase reserves continued to mount. High levels of corporate activity created bigger companies, with increased output, implying that more ounces had to be found each year to replace material mined and to sustain reserves – but investors were not satisfied that reserves merely be sustained, they

Fig. 2 TSE and ASX Gold Indices



demand growth. Thus, the scene was set for a substantial increase in mine production, with some estimates suggesting that world output could grow by as much as 20% towards the end of the century. During the course of the year, two developments shifted these perceptions and expectations.

Firstly, a series of shocks relating to fraudulent announcements of exploration results – of which the Bre-X scam was the most spectacular – seriously eroded investor confidence. The announcement in March that the deposit at Busang contained insignificant amounts of gold impacted immediately and dramatically on valuations of gold mining companies on the world's stock exchanges (see Figure 2). The second factor making a production boom seem less likely was the gradual but relentless decline in the gold price, to levels last seen in 1985.

## An analysis of year-to-date production and costs

Despite the very adverse conditions prevailing in the market, mine production actually increased in the first six months of 1997 – by just over 1% from year-ago levels. In absolute terms, the biggest increase was achieved in Australia, where deliberate efforts to 'high-grade' operations at some established mines, combined with commencement of operations at a handful of new mines, resulted in the highest quarterly production ever recorded. Output in the US increased due to greater efficiencies and, again, new mines starting up, while in China, Uzbekistan and Kyrgyzstan impressive growth was also achieved.

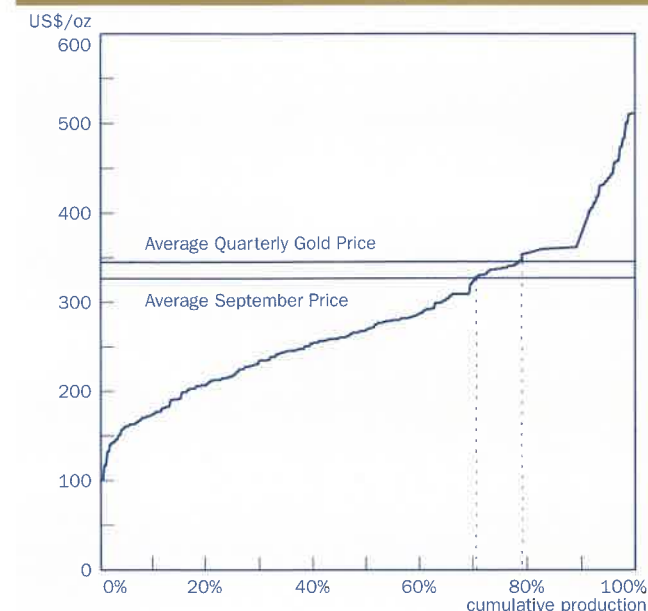
On the other hand, production declined by close to 6% in Canada, as operations were suspended at a number of ageing,

high-cost mines. In Russia, the continued funding crisis resulted in a further decline in output in the first six months, while production also declined in South Africa, albeit by a perhaps surprisingly low 2%.

Turning to costs, our analysis of Western World production costs indicates that cash costs increased on average by around 2% in the first half of the year. The cash-cost curve (see right) illustrates that in the June quarter, around 22% of producers had cash costs above the average gold price for the quarter of \$343/oz.

At \$323/oz, the average price for September, that percentage increases to around 28%, which, when extrapolated, represents over 550 tonnes of annual Western World output. However, it is not cash costs that determine a mine's long-term viability: total costs can be anything from \$10/oz to \$170/oz higher than cash costs. Once capital expenditure (in the case of South Africa) and amortisation/depreciation (in the rest of the world) are included to calculate total costs, the loss-making portion of production increases significantly: our estimates put

Fig. 4 Western World Cash Costs 1997 Q2



this figure at around 50%.

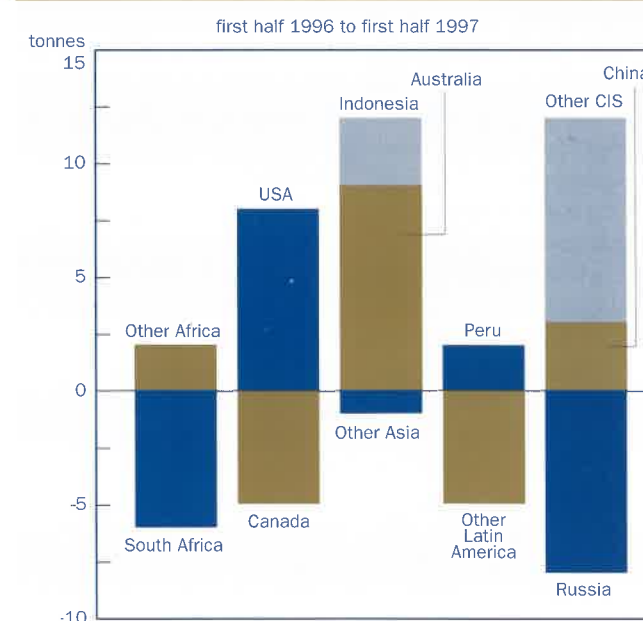
The challenge facing producers is, as always, to generate a return on investment for the benefit of their owners. However, as shown above, producers are currently facing a double whammy of dramatically reduced revenues and steadily increasing costs. Some producers have focused on costs, and thereby managed to bring operational expenses down to levels comfortably below current prices; others achieve attractive cash margins thanks to extensive hedging programmes. Predictably, the best results are

being achieved by those producers which have addressed both costs and revenues.

It is therefore interesting to note the sudden increase in forward selling in the second quarter, particularly towards the end of June.

Significant as the 6% increase in outstanding forward positions was, however, it was the more than 170 tonnes of additional future production against which put options were bought since the end of last year which indicated the true extent of producers' fears of further downside risk.

Fig. 3 Gold Mine Production

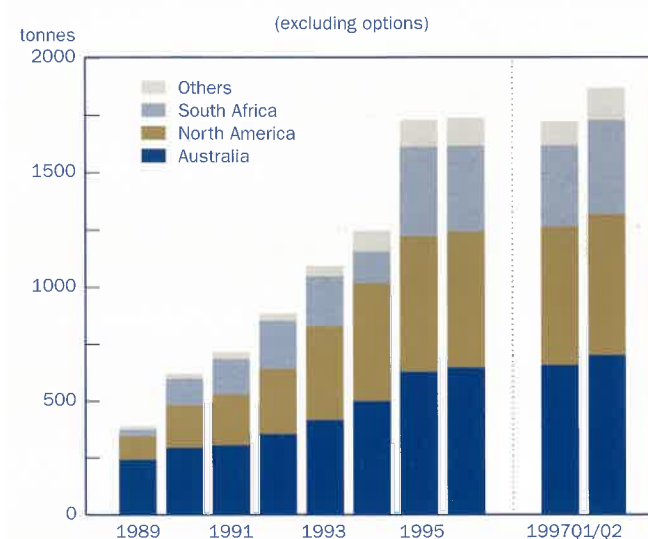
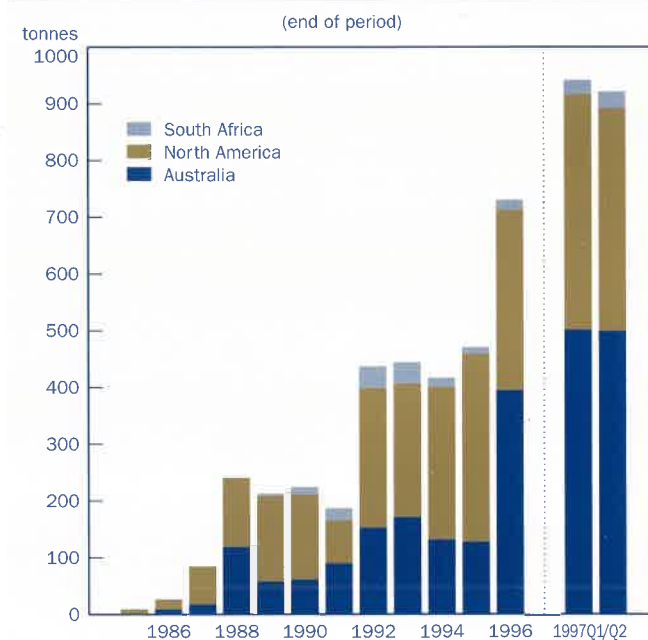


## Outlook: fewer new mines

Despite the fact that efficient hedging has enabled a number of producers to continue operating longer than would otherwise have been possible, low prices are inevitably starting to impact both current and future production.

The first casualty of poor prices will be future projects: it is, after all, cheaper to call off a future development than to close an operating mine in which millions have been invested. Based on recent announcements, we



**Fig. 5 Outstanding Forward Selling Positions****Fig. 6 Outstanding Producer Options Positions**

have identified at least 23 tonnes of future production which will not be coming on stream in the next two years as planned – but many more projects have been deferred without formal announcement.

Feasibility studies had been based on projected prices as high as \$400/oz – prices which, a year ago, did not seem unreasonable. At current price levels, though, cut-off grades become so high that the amount of payable ore no longer warrants development.

Not all future projects are equally threatened by the low gold price: some of the new production slated to come onto the market in the next few years will be generated by mines which will also produce copper – either as primary product, which means that the project will be sheltered from low gold prices to an extent; or as by-product, which can bring operational costs down to such a low level that the project will be profitable even at much reduced gold prices.

### ... And more productive existing mines

Several producers have reassessed current operations, with a view to identifying possible closures, should prices maintain current levels. Before taking the radical step of closing a mine, however, producers can resort to a variety of measures:

**High-grading** involves both literally mining higher grade areas, and curtailing operations at unprofitable sections or shafts. Not all mines have the operational flexibility to implement this strategy.

**Rightsizing**, which theoretically entails scaling down operations to maximise existing capacity, although in reality it often implies downsizing, ie, reducing capacity.

**Cessation of development** and/or exploration curtails expenditure, but provides short-term solutions at best.

A last alternative would be to place non-profitable mines on **care and maintenance** (ie, maintaining the mine and plant but not actually mining or processing any material) pending improved prices. But this often carries very high costs, particularly for underground mines where flooding or ground instability is a potential danger.

It is worth noting that, thus far, most of the announced closures have been of very small mines, or mines where reserves were nearing depletion anyway, where closure has merely been brought forward.

### The future belongs to the efficient

The large number of new mines opening up or building up capacity, combined with increased efficiencies forced upon producers by lean price conditions, may well sustain production at present levels, or

even generate modest growth despite continued lower prices.

On the other hand, with more than one quarter of gold currently being produced at a cash operating loss, producers nearer the top of the cost curve will soon have no choice but to close or severely rationalise operations.

At some point, pressures created by curtailed exploration and development and rationalised operations will start to outweigh growth factors. However, mine production has been shown to be relatively price-insensitive in the shorter term.

One positive aspect from the point of view of producers is the opportunities presented to companies with healthy balance sheets to take over promising projects and producing mines whose only problem is a lack of capital. We can expect to see the industry becoming leaner and more efficient, as loss-makers are eliminated and profit-makers are presented with the opportunity to skim the cream off projects on offer.

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*Copies of Gold 1997 Update I can be obtained from:*

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The price is £110. ■

# Casting Brazil's Golden Rules

## Regulating a Once-Renegade Market

by Fernando JR Borges, Director, Companhia Real de Metais



Driven by either a spirit of adventure, starvation or greed, a number of Brazil's northeast inhabitants migrated to remote provinces to develop the country's rich *garimpos* (alluvial deposits). The discovery of "Serra Pelada", the world's largest *garimpo*, raised the excitement level and, by the beginning of the early 1980s, these unofficial miners, or *garimpeiros*, were accounting for up to 91% of total Brazilian gold production.

There is a long history of mining in Brazil – in fact, the Mineracao Morro Velho mine, opened in 1834, is the oldest underground mine in the Western world. But it was difficult for the formal, established companies to compete with the *garimpeiros*. These companies had been granted some government incentives for preliminary exploitation projects, but they were faced with a number of restrictions imposed by the country's related legislation: a heavy tax burden, difficulties in importing basic equipment, restriction to ownership interest by overseas capital and, most of all, no clear means of selling primary and refined gold.

The high inflation rates of this era led to strong demand from people seeking to buy gold as a hedge, but they had to conduct business within a disorderly and fragmented market. Much was lacking: there was no gold standard to assure the buyer of quality, refining was essentially a fragmented cottage industry of small-sized foundries, and most jewellery transactions were conducted on the black market to avoid high taxes. Although the government recognised that the rich deposits of gold lying in Brazil's ground could provide at least a partial solution to some of its difficulties (a growing foreign debt, high interest rates and uncontrolled inflation), it did not initially focus on improving the market. With international standards largely ignored,

and no well-defined national standards for grade, weight and form, the OTC market lacked both respectability and credibility – although in many cases, it was the sole option available to the investor. There were no appropriate places where gold could be sold or held in custody. Transportation of gold was very precarious and insurance (when it was possible to get insurance) very expensive. There were a number of individual gold-mining states that, propelled by regional greed, levied a variety of taxes on gold.

### Order from chaos: the first steps

The first step towards producing a regulated market was taken when the Bolsa de Mercadorias e Futuros (the Futures and Commodities Exchange, BM&F) was set up in São Paulo in 1985. The Exchange's first gold trading session was held in January 1986.

Soon afterwards (October 1986), a group of seven companies, comprising mining companies, foundries, transportation companies and financial institutions, founded the Associação Nacional do Ouro (ANORO, the National Gold Association). Their ultimate objective was to provide effective conditions for all gold transactions, from production to sales. While it may have been preferable for the government to take the initiative, the political environment of the time favoured such 'market altruism'. The combined ANORO members were in a good position to make government authorities aware of the market's commercial needs and, in particular, to lobby against the high taxes being levied. The concept was to work out some form of partnership with the government with the goal of legitimising and promoting the gold market in Brazil.

The first step ANORO took was to establish a standard for Brazilian





OTC gold, similar to international standards in use in London, Hong Kong, Chicago, New York and on the Brazilian BM&F. Members developed a Certification Manual, still in use today by the Audit and Ethics Committees when certifying new companies. ANORO verifies the applicant's reputation and standing, inspects a gold producer's plant facilities to analyse how the gold is processed and, ultimately, grants the end product (a 250-gram bar of gold of minimum 99.9% purity), the "Credecimento da ANORO" (the ANORO Certification) or the "Padrao Ouro – Brasil" (the Gold Standard – Brazil). Companies now need to have passed the Certification before their gold can be traded on the BM&F.

Partnerships between ANORO and the BM&F, the Central Bank of Brazil and other government entities have resulted in numerous improvements to the market. These include Law Nr. 7.766, which prohibits multiple taxation on gold, as well as a formula to calculate real profits over gold loans (Law 8.383) and exemption of purchases of primary gold from the IPMF Tax (the Provisional Tax on Financial Operations). These achievements have allowed the entry of over \$1 billion a year into the Brazilian economy. Estimates are that, by 1989, 65% of the gold transactions were legal and annual turnover came to approximately \$31.5 billion.

These partnerships remain in force and they have proved vital in opening up Brazil's gold market to the rest of the world. This was initially done by setting up the arbitrage between gold and the floating dollar and, finally, direct arbitrage (as provided for by CVM Resolutions Nr. 2.012 and Nr. 2.350, respectively).

In 1996, ANORO was both individually and collectively involved in winning the exclusion of "national capital" from Article 176 of the 1988 Constitution. This article had stated that gold mining should be carried out by Brazilian enterprises using national capital, thereby restricting foreign investments to a maximum of 49% of the enterprise. The withdrawal of this restriction has now allowed for strong growth in overseas mining investments.

### Sixty tonnes: from where . . . ?

Nowadays, the composition of the Brazilian gold market is easily defined. On the supply side, the output of mining companies reaches approximately 40 tonnes. As most of this gold is directly exported as a commodity, it is subject to only minimal taxes, due to government incentives designed to stabilise the country's trade balance. Gold mining companies are further motivated to raise funds overseas through the use of ACCs and ACEs (advance for export contracts), which provide funds at lower-than-domestic interest rates. They can also use hedge mechanisms, such as swaps, futures and options in the domestic and overseas markets.



Garimpo mining's contribution to supply has dwindled, as stream gold becomes less abundant and mining costs rise. Most of the 20 tonnes it currently accounts for are acquired by domestic dealers authorised to make purchases directly from the gold fields. This gold is then considered a financial asset and is taxed at 3.65%. After being processed by a certified foundry, it can be traded on either Brazilian or overseas exchanges by individual investors and businesses.

### . . . To where?

On the demand side, it has been verified that between exports and arbitrated sales to foreign banks, the overseas market absorbs approximately 60 tonnes of gold.

Turning to domestic demand, the electroplating industry uses approximately 500 kgs/year for such purposes as printed circuit boards, connectors, bathroom fittings, spectacle frames, clocks and watches, costume jewellery, ornaments, buttons and buckles. Gold is used in electronics to fabricate chips and other electrical products, and by the dental market to manufacture gold-based alloys. These industries together absorb 1.5 tonnes/year.

The jewellery industry accounts for approximately 35 tonnes of gold a year, including the illegal side which, due to the continued heavy tax burden, is still flourishing. Taxes on jewellery account for approximately 51% of the end price.

Market opinion holds that the gap between supply and demand that therefore exists is narrowed through dishoarding by mining companies, recycling of gold and a combination of legal and illegal imports.

It is important to point out that, although the domestic market has shrunk due to the attractiveness of exporting, the Brazilian exchanges, through their member firms, still offer the public a wide variety of trading options: an active spot market, the BM&F's Teleouro electronic system, an options market and a US-denominated gold futures market.

### Now where?

Looking towards the future, the Board of Directors of ANORO has turned its attention to opening up new markets for the gold foundry industry via the draw-back system. This system provides a permit to import precious metals (especially gold) with a commitment to export them after manufacturing as goods with aggregated worth.

It is essential for us to encourage gold consumption in Brazil, especially in the form of jewellery. With taxes as they are at present, Brazil's jewellery industry cannot compete on equal terms with gold entering the country illegally. It is almost certain that lower taxes would immediately result in less market restrictions and more transparency in transactions. More jobs would be created, leading to an increase in overall taxes collected by the government. The subsequent rise in domestic consumption would enable our industry to be better equipped to compete in overseas markets. ■

# The Golden Age of Hatton Garden

by Andrea Debnam, Camden Council, and Judy Head,  
the Hatton Garden Association



**In 1510, a German alchemist and diplomat, Henry Cornelius Agrippa, was sent by the Kings of France and Austria on a secret mission to London. He left an interesting account of the city at that time, including a description of the area now called Hatton Garden. By the seventeenth century, the area's transformation into one of the world's major centres for goldsmithing, diamond trading and jewellery making had begun.**

The district surrounding the old Roman road near High Holborn had long been home to the palace and gardens of the powerful Bishops of Ely and, in 1576, one Christopher Hatton – who had impressed – Queen Elizabeth I with his dancing – was granted a house and grounds in Ely Palace. As was the custom, the bishop himself had little say in the matter.

It was the Age of Exploration, and during this time rough diamonds from India were being carted from London's docks to the waiting smiths who lived and worked near what is now Goldsmith's Hall. By now, the famous Garden had given its name to the surrounding network of streets, the layout of which still retains much of its original character today.

### I, Johnson, take thee, Matthey . . .

In 1817, a local smith named Percival Norton Johnson, a 24-year-old who had begun his apprenticeship in the Worshipful Company of Goldsmiths at the age of 14, founded what is today the oldest surviving business in Hatton Garden: Johnson Matthey plc. It had been only two years earlier that Wellington defeated Napoleon's army at Waterloo. Britannia ruled more than the waves, and business was ready to boom.





Now any dealer will tell you timing is everything. But starting a business on one's wedding day would not be on the agenda of most business plans, especially considering that the day in question also happened to be New Year's Day 1817, when a young man's fancy might better turn to the medicine cabinet for a hangover remedy. Nonetheless, Johnson prospered through a combination of hard work and an impeccable reputation for accuracy and integrity. And when, in 1851, he was joined by partner George Matthey, their fledgling company was immediately tested, as the California Gold Rush reached England's shores.

The Forty 'Niners of the American West were but one part of the avalanche of New World gold discoveries then taking place in North America and Australia. Having already established itself as the silver market of the world, the increasing flow of gold laid the foundations for London's development as a major centre for bullion trading. Just how much gold was flowing is recorded by Edward Matthey in his Memoirs: "The Bullion Office at the Bank of England was

sometimes flooded with gold. To meet the difficulty as to getting through the work, the Bank of England sent to Hatton Garden and Johnson Matthey were at once made 'Assayers to the Bank of England'."



The original Blazon of the Arms of the Institute of Metals (now part of the Institute of Materials), showing the alchemical signs for the non-ferrous metals.

### And with this diamond . . .

London also reaped the rewards of South Africa's Kimberley Diamond Rush, and Hatton Garden became a centre for the trading of rough diamonds in the 1870s, followed by the arrival of De Beers, founded by Cecil Rhodes, who had long identified with the Oppenheimer family.

Hatton Garden's unique combination of raw materials (precious metal and stones, particularly gold and diamonds), the fabrication of precious metals for jewellery and industrial uses by Johnson Matthey and the availability of craft skills (goldsmiths, diamond cutters, polishers and setters) enabled the area to establish itself not only as London's jewellery quarter, but as a major international centre for the gold and diamond industries in the twentieth century.



The area's reputation was probably at its height between the 1950s and 70s. During this period, Johnson Matthey retained a strong presence – its headquarter offices had one of the longest trade counters in London. For its part, De Beers constructed the complex of buildings on Charterhouse Street that has become the company's main commercial operation outside South Africa and also enabled London to host the world's largest trade in rough diamonds. Whilst Hatton Garden also became a popular place for the public to purchase engagement and wedding rings, its main role was to service the trade buyer from the UK and overseas.

Over the past 15 years, the business profile and structure of Hatton Garden has changed significantly, witnessed by a major decline in the number of businesses involved in the jewellery sector and the spreading development of retail outlets by manufacturers and wholesalers.

Nevertheless, the area has managed to consolidate and enhance its position. While the ongoing presence of major industry players continues to attract new arrivals, jewellery retailing has expanded to where the district now forms the largest single cluster of shops in the UK – over 30 at the last count. Today, an ever-growing reputation for high quality design rests solidly upon a strong local tradition of craft skills and the same sponsored apprenticeships that continue to train young jewellers almost 200 years after the young Percival Johnson learned his craft.

Key challenges remain, however, and last year the need to tackle these brought together a partnership that includes the London Borough of Camden, the Hatton Garden Association (a local business group comprised mainly of jewellery retailers), De Beers and Johnson Matthey. This alliance also includes the City Fringe Partnership, led by the City of London Corporation.

Some of the proposals to emerge from the regeneration initiative include branding Hatton Garden as London's Jewellery Quarter; improving the street environment to create a more attractive shopping area (now underway); the development of new managed workspace for craftspeople working in the jewellery industry; and establishing a jewellery centre, incorporating a museum and education, training and trade facilities. These and other measures, it is hoped, will secure Hatton Garden's future as one of the world's major centres for jewellery, precious stones and metals.





The street of Hatton Garden, which shares its name with the surrounding area, extends from Holborn, in the south, to Clerkenwell Road in the north. The area is boundaried to the east by Farringdon Road and to the west by Grays Inn Road.

Hatton Garden forms part of the City Fringe, and is one of a number of areas characterised by the development of industries based on the commodities and raw materials that at one time traded through the City of London in their physical form. The western part of the City Fringe is associated with the jewellery and precision instrument industries of Hatton Garden and Clerkenwell.

Following the development of London's role as one of the world's leading centres for trading in precious metals and stones, particularly gold and diamonds, the jewellery industry grew rapidly in the later years of the last century and for much of this one.

For more information, contact Andrea Debnam at Camden Council on 0171 413 6101 or Judy Head at the Hatton Garden Association on 0171 404 3812. ■



## The LBMA Autumn Seminar

Thursday 20 November, 5.30pm Nickleby Suite, Dickens Inn, St Katharine's Way, London E1

The LBMA is holding an Autumn Seminar for Members of the London Bullion Market Association.  
The programme is set out below.

5.30pm–6.00pm Registration and light refreshments

6.00pm–6.10pm Introduction by Mr Peter Fava, Chairman, LBMA

6.10pm–6.40pm "New Gold Supply, Pipeline or Pipedream?"

Mr Paul Burton, Editor, Mining Journal

Gold Service, The Mining Journal Limited

6.40pm–7.00pm Discussion

7.00pm–8.30pm Buffet dinner

# The Peaks of Perfection and £30,000 for Charity

by Matthew Keen, Vice President, JP Morgan

## Not bad for a day's work – on your day off

On 6 September, an intrepid crew of hardy volunteers tackled the three-peaked fury of the Yorkshire Dales to raise money for charity. The 14 who finished the 26-mile trek were not necessarily the same 14 who started. In fact, at one point, the headcount climbed to 19 as Emma Corcoran and Hayley and Olivia Allan, acting as cheerleaders, stopped to coax along their whining, aged parents. And then there was the weather, which proved as up-and-down as the terrain, with conditions deteriorating steadily throughout the day. Many of the walkers had quite sensibly dressed to cope with either heat or cold, but found the driving rain more difficult to bear.

The good news is that everyone got back safely and the spirit of the team remained undaunted. Equal to the high spirits of the walkers themselves was the generosity of the Bullion Market as a whole, which contributed £30,000 to the major beneficiaries, Fragile X, named for the most common inherited cause of learning disability, and Future Hope, a charity that provides a home for abused and underprivileged boys in Calcutta.

The team thanks all those who gave so generously to these very worthy causes. Toward that end, the survivors of the walk will join representatives from both charities at a small gathering on Friday, 31 October at the offices of JP Morgan. Any and all interested in sharing a glass of something cold and listening to some undoubtedly true war stories are welcome. ■



*Band on the Walk* — from left to right: Richard King, Kate Pellissier, John Coulter, Matthew Keen, Les Johnson, Simon Weeks, Christian Gomnaes, Jack Allen, Andy Carruthers, Clive Stephan, David Spraggs and Spencer Fieldhouse.

*Missing are Martin Stokes and Rolf and Gaby Siebenmann, all of whom successfully completed the walk. Martin, pushing the envelope as usual, opted for that extra hour in bed.... But he was still able to catch up with the main body at the top of Wharfedale (the second peak of three).*



## write away

Unfortunately this issue has left no space for letters. Well, take heart, and while you're at it, take pen in hand: our next will be bigger and better, thanks in no small part to reader comments, suggestions, forecasts. So give the *Alchemist* a piece of your mind.

The address is:  
Letters  
The Alchemist  
6 Frederick's Place,  
London EC2R 8BT Fax: 0171-796-4345



# Quick Study...

## A Gold-Linked, Cross-Currency, Interest Rate Swap

by Peter Hillyard, Vice President and Manager Precious Metals, Bank of America

**This is the first in a series of occasional articles seeking to demonstrate how gold might be used to provide solutions to specific financial situations. This example uses a real market event – the Russian bond issue of November 1996 – and demonstrates how the use of a cross-currency swap linked to gold could reduce the overall interest cost.**

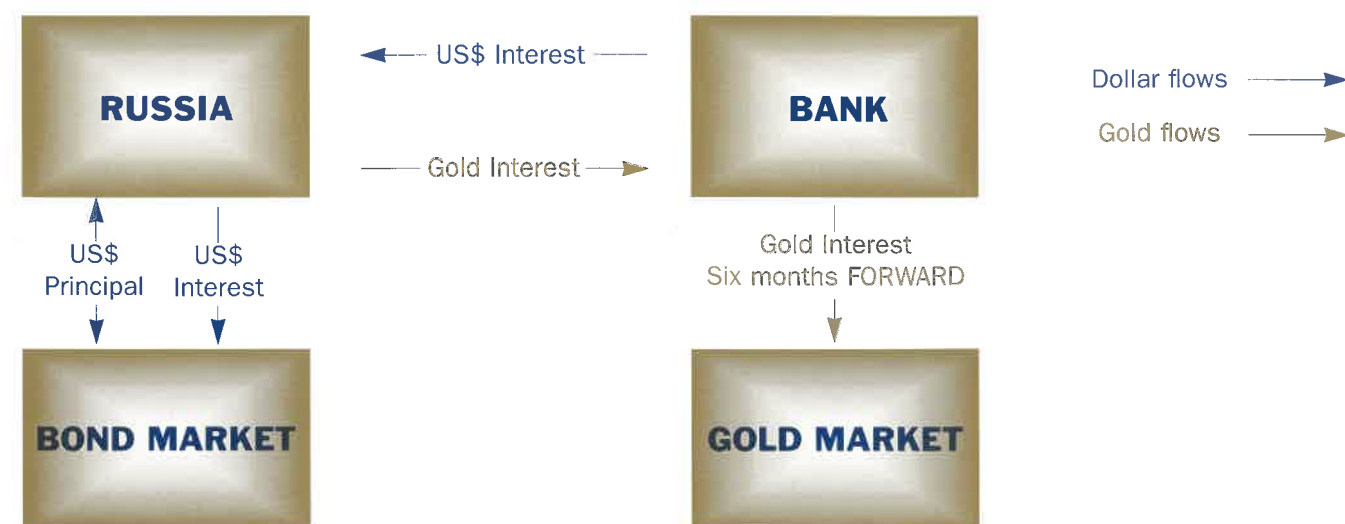
We welcome contributions or suggestions for future issues.

The Centre for the Study of Financial Innovation, in paraphrasing John Maynard Keynes, says that gold is "a now defunct economic function." But is it? Like every other financial instrument, gold can be employed through a variety of practical applications by investors and borrowers for several purposes: to finance future mining, to facilitate borrowing of hard currency and to exchange future cash flows where one of the currencies is linked to the price of gold.

### Terms

- A gold-linked, cross-currency, interest rate swap is an agreement between two parties to exchange future cash flows in two currencies where one of the currencies is linked to the price of gold.
- A cross-currency swap resembles a back-to-back loan and deposit except that it is off balance sheet.
- Interest payments can be made on a fixed or floating rate basis.

*On 21 November 1996, Russia raised \$1 billion in the bond markets, in its first international issue since the 1917 Bolshevik Revolution. The issue was heavily oversubscribed. The five-year bonds paid interest of 9.25% semi-annually, 372 basis points more than the yield on six-month dollar LIBOR.*



### Hypothesis ...

The Russian Ministry of Finance wishes to reduce its interest costs during the life of the loan. So, on 21 November 1996, the Ministry and its Bank enter into a floating rate cross currency swap.

### ... And How It Works

**Background:** on 21 November 1996, the London am Gold Fixing was \$378.50; six-month dollar LIBOR was 5 17/32nds and the six-month GOFO mean was 3.27%.

**Value date:** 25 November 1996

**Maturity:** 23 November 2001

**Principal:** \$1,000,000,000 and 2,642,007.926 ounces fine gold.

**Exchange rate:** the swap principals are at an exchange rate of \$378.50 per ounce fine gold (corresponding to the London am Gold Fix on the transaction date).

**Initial exchange:** there shall be no initial exchange of principal.  
**Ministry pays:** a rate of interest based on the formula LIBOR less GOFO, paid semi-annually, on 2,642,007.926 ounces fine gold, payable in US dollars calculated on the basis of the London am Gold Fix two days prior to the interest payment date.

**Bank pays:** six-month dollar LIBID, semi-annually, on \$1,000,000,000 (5 13/32nds at time of swap).

**Final exchange:** Ministry receives \$1,000,000,000 and pays the dollar equivalent of 2,642,007.926 ounces fine gold calculated on the basis of the London am Gold Fix two days prior to maturity.

In effect, the principal amounts net, so that only a difference is payable by either party to compensate for any change in the price of gold during the period of the swap.

**Documentation:** International Bullion Master Agreement.

It is worth noting that the Ministry is effectively short of gold throughout the term of the swap and thus exposed to higher prices. However, this product could be viewed as a hedge against the country's considerable gold reserves.

### How is it hedged?

The pricing and hedging of a floating/floating gold-linked, cross-currency swap relies on the interest rate parity theorem, the fundamental law of international finance linking exchange rates and interest rates.

This theorem says that the percentage difference between the forward gold price and the spot gold price will equal the difference in interest rates between gold and the currency in which the deal is transacted. If the relationship between the forward price and the spot price were to deviate from this theorem, the potential for arbitrage will see to it that the relationship is restored.

Thus, on the transaction date in the above example, the bank can either:

- Take gold on deposit for six months at LIBID minus GOFO, sell spot gold in dollars in the gold market and place the dollars in the money market at LIBID; or

- Sell gold six months forward in dollars.

Then, two days prior to maturity, the bank buys back the maturing forward position in the spot market. ■

## Obituaries

### John E Faulkner 1932-1997

It is with much regret that we have to advise that John died on 9 August 1997 at the age of 64 following a short illness from cancer.

John joined Samuel Montagu in 1956, working in a variety of departments until he joined the Bullion Department in 1968 where he continued as a Manager until his early retirement in 1991. John was well known for his wit and intelligence and was a popular figure amongst his colleagues and peers in the London Market. To those who came into contact with John on a more regular basis he was regarded as a real character, a one-off who broke the mould.

John was a keen sportsman in his early days, playing both cricket and football and there are those amongst us who can still remember the 'Cat's' fine performances in goal during the Montagu vs. Sharps Pixley football matches. In later years, John developed a great love for fishing (with the attendant hip flask to conjure a bigger catch, of course) and, by all accounts, he was no slouch as a chef either.

John leaves a wife and one son and will be sadly missed.

Frank Randall, HSBC Midland

### Georges Zuber 1943-1997

The precious metals and Forex community in Geneva has lost one of its real stalwarts, Georges Zuber, of Union Bank of Switzerland, who died on 28 August at the age of 54. For many in the bullion business, one of the special pleasures of a visit to Geneva was a chance to meet Georges and probably have lunch with him, for he liked to share his favourite restaurants with his friends, and was a fine host.

Georges Zuber spent all his working life at UBS, starting in 1959 at Solcure, a small town near Berne, and moving to Geneva in 1962. He began Forex and precious metals trading in 1969. He became a Director of UBS Geneva in 1989 and was on the Board of Argor Hereaus SA. For several years, he was President of Forex Switzerland but, as one of his UBS colleagues put it, "Most important of all, Georges was a great fellow and a good friend. I miss him a lot". So do many of us, and offer our sympathy to his family.

Timothy Green



# LBMA News

by Chris Elston, Chief Executive, LBMA

## Membership

On 1 October, Scotiabank announced that it had signed an agreement, which is subject to regulatory approval, to acquire Mocatta Bullion & Base Metals from Standard Chartered Bank. Scotiabank will retain Mocatta's position as a member of the London Gold Fixing and as Chairman of the Silver Fixing.

*Change of Address:* from 26 August 1997, AIG International Limited moved to:  
9 Thomas More Square  
Thomas More Street  
London E1 9WZ  
Telephone and fax numbers unchanged.

## Good Delivery List Changes

*Additions:*

**Silver** – Italy, Enirisorse, with effect from 17 September 1997.

**Gold** – Brazil, CRM – Companhia Real de Metais, with effect from 15 October 1997.

*Transfers to Lists of Former Melters and Assayers of Good Delivery Bars:*

**Gold** – United States: United States Assay Offices and Mints, with effect from 8 September 1997.

**Silver** – United States: US Assay Office, New York, with effect from 8 September 1997.

**Silver** – Poland: Zakłady Metalurgiczne Trzebinia, with effect from 15 October 1997.

**Silver** – Former Yugoslavia: Trepca, with effect from 15 October 1997.

## Obituaries

The LBMA regretfully records the deaths on 9 August of John E Faulkner of the former Samuel Montagu and on 28 August of Georges Zuber of UBS. See page 15 for tributes.

## Committees

### Management Committee

The Committee continues to study the issues of the ISDA Bullion Addendum (still nearing completion) and VAT harmonisation, and has a weather eye open on the potential effects of EMU and the new supervisory regime.

### Membership Committee

Under the Chairmanship of Alan Morris (Aron), this Committee is taking a more pro-active role, and it has been joined by Robert Ashley (Rothschild) to represent it on the Management Committee. It has sent a short questionnaire to Market-Making Members and will be following this up with a similar questionnaire to Ordinary Members aimed at establishing the relevant details about Members' activities.

### Physical Committee

The Physical Committee continues to process applications to the Good Delivery Lists, of which three are current at the present time. In addition, we are expecting to process applications from five Russian refineries to replace the Former USSR State Refineries which were transferred to the Former List from 1 January 1997.

The first round of the questionnaire process is nearly complete. Seventy nine have been sent out and 76 have so far been returned. Of these, 62 have been retained on the List. Ten have been transferred to the Former Lists and four are still subject to enquiry.

In addition, the Physical Committee is studying a possible Electronic Clearing System for the Bullion Market and is looking at bullion delivery standards and weighing procedures, as well as safe custody, liquidity and due diligence issues. The Committee is not short of work.

### Public Affairs Committee

Jason Thiel (Bankers Trust) has joined the PAC, which continues to oversee the production of the *Alchemist* and *Market Statistics*. It is organising an Autumn Seminar on 20 November (see page 12).

With a view to taking a more proactive role in public relations, particularly vis-a-vis the media, the Association is aiming to appoint a Public Relations Manager, whose role will be to cover all aspects of public relations, including in particular, the development and maintenance of a web-site.

### Finance Committee

Brian Reid (Merrill Lynch) has joined the Finance Committee. ■

## DIARY OF EVENTS

### 10-11 November 1997

Assaying and Reporting Standards Conference: Assessing Asian mineral investment in the post Bre-X era. AIC Conferences, Oriental Hotel, Singapore.

### 14 November 1997

LBMA Disco, Directors' Club, 12 Philpott Lane, London EC3.

### 20 November 1997

LBMA Autumn Seminar, 5.30pm Dickens Inn, St Katherine's Way, London E1.

### 20-21 November 1997

The Gold and Diamond Industries of Russia and the Central Asian Republics, Adam Smith Institute Radisson Marlborough Hotel, London.

### 23-25 November 1997

IV International Gold Symposium in Venezuela, Venezuela Gold Association, Caracas Hilton Hotel.

### 26-27 November 1997

Financing Mining Projects, IBC UK Conferences Limited, The Landmark, London.

### 4 December 1997

Managing Metals Price Risk, Risk Conferences, Millennium Hilton, New York.

### 8 December 1997

Managing Metals Price Risk, Risk Conferences, Hilton International, London.

### 19 February-14 May 1998

The Industry Collection of Gold Bars Worldwide. Exhibition at Bank of England Museum, Bartholomew Lane, London EC2.

### 23 April 1998

LBMA Biennial Dinner, The Gibson Hall, Bishopsgate, London EC2.

### 14 May 1998

LBMA Annual Golf Day, Clandon Regis Golf Club, Surrey.

### 22-23 June 1998

FT World Gold Conference, Rey Juan Carlos I Hotel, Barcelona.

For further information please call  
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or

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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.