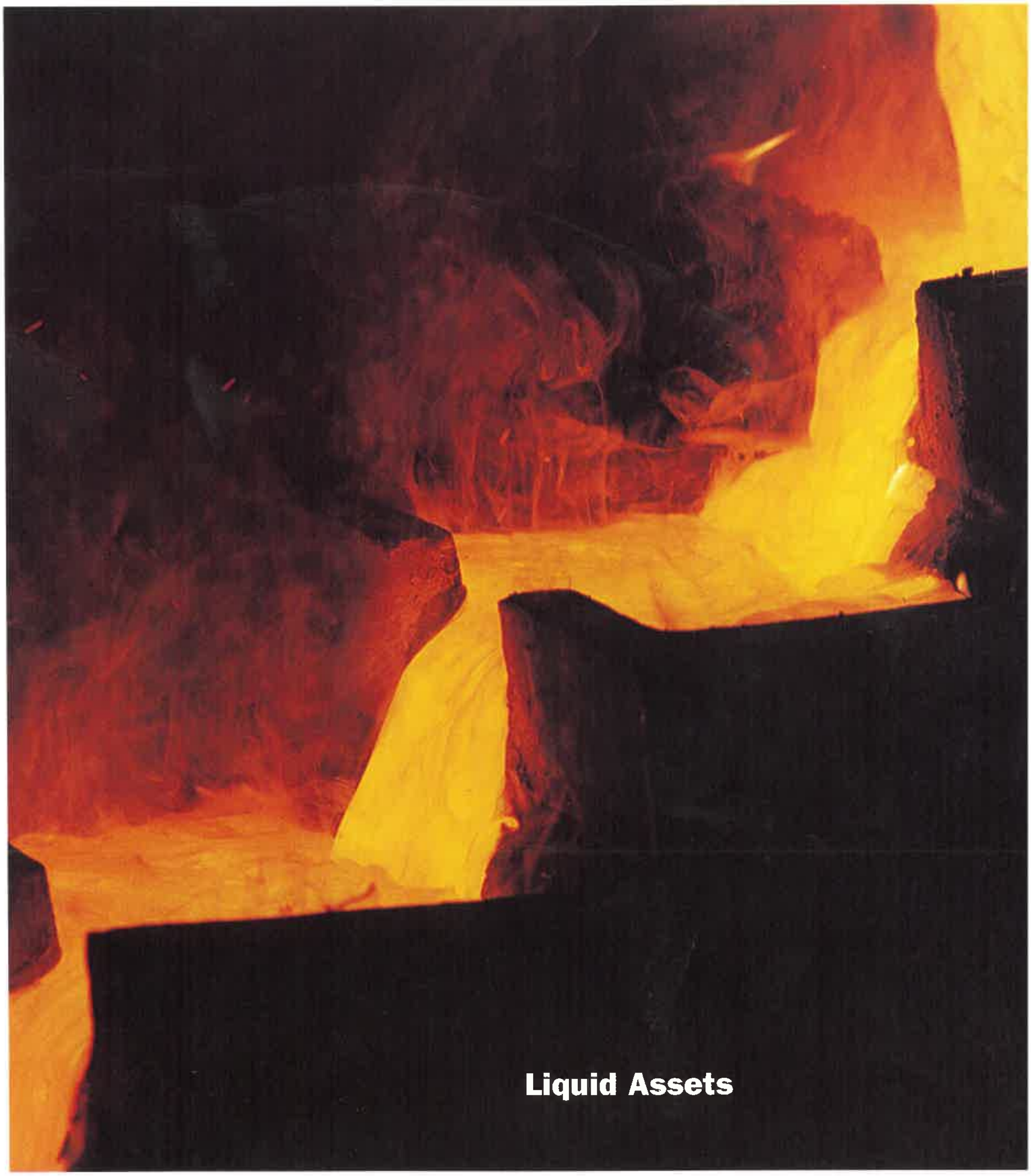
Alchemist

The London Bullion Market Association ISSUE 14 February 1999

LBMA



A molten river of gold from the mines of South Africa cascading into bars. *(see page 2)*

In this issue:

A More Qualified Solution

Raising education levels helps improve mining productivity in South Africa

By Tom Dale, Managing Director, Gold Fields Limited in collaboration with Susanne M. Capano

It's like trying to take the filling out of a sandwich.

That simile explains why South African gold has never been easy to extract. The ore deposits run in a series of thin layers deep underground and only rarely break the surface. It was not nuggets of gold, but diamonds, that originally drew prospectors to the country in 1871. When an outcrop of gold was discovered on a farm just outside Johannesburg about 15 years later, it was only the tip of a well-hidden iceberg.

The thin reefs running throughout the Witwersrand Basin in a curve around Johannesburg were deposited between 3,000 and 2,700 million years ago. They typically plunge at a 25-degree angle to depths of 5,000 metres (three miles) or more – bottom has not been reached. The deposits average 25 centimetres (a little less than a foot) in width, and the underground excavations used to mine them are called stopes. What makes it even more difficult to extract the gold layer is that this is a sandwich with extremely stale bread – the rock surrounding the deposits is quite hard.

Despite these challenges – the depth and narrowness of the deposits, and the hardness of the bedrock – South Africa had grown into the world's largest producer of gold before the turn of the century, a position it still holds today. However, its share in a growing world market has been declining steadily for a number of years as its production costs have risen to become among the highest in the world. Whilst falling grades and the ongoing complexities of deep hard-rock mining have been contributing factors, the major reason has been that increases in labour costs have not been matched by increases in labour productivity. About half the cost of producing gold in the Wits Basin is payroll related. During the last decade, periods of a flat rand gold price combined with escalating costs have led to higher pay limits (break-even grade) and shrinking ore reserves.

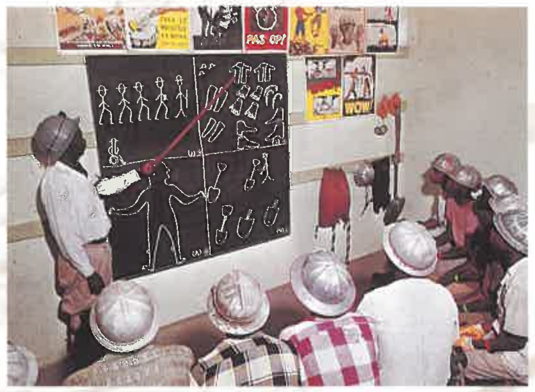
Meeting the Challenges

The industry's main response to the challenges it faced in order to survive was to reduce the scale of operations (tonnages mined and milled) and to increase ore grades, leading to substantial job losses. Although reducing jobs led to statistically improved productivity based on gold produced or tons mined per employee, it did not improve productivity at the core of the business.

The only way to address that issue is to use a holistic approach, calling for a number of initiatives to restructure the business and the jobs and roles of people. Given training and development, coupled with appropriate reward systems, employees can work effectively in new ways. Gold output can increase, pay limits can be lowered and investor confidence increased, bringing about real gains in international competitiveness.

Increasing Productivity

To briefly outline the mining process in South Africa, permanent roadways are constructed through the waste rock to reach the stopes themselves, which must be kept low in height in order to minimise accumulation of waste rock surrounding the thin deposits. They average only a metre in height – slightly higher than an office desk. Within this opening, holes approximately four feet deep are drilled into the end wall, packed with explosives and remotely



detonated. The broken ore and waste rock are cleaned out and transported above ground to be processed. A support system must then be constructed before the process can start over again.

Each miner was traditionally responsible for 500-600 feet in area, consisting of several stopes, and blasting occurred once every three days. If the frequency of the blasts could be safely increased, there would be enormous potential to improve productivity. The key lay in educating more workers who could then potentially become miners, thus allowing the area of responsibility for each to be reduced.

Improved supervision allows for better control over each area, and it then becomes possible to safely decrease time between blasts, our goal being to have daily blasts. It also means better control over the Mine Call Factor – maximising the grade of ore coming out of the stopes.

Raising the education and training levels of previously illiterate workers not only improves productivity, but also reduces accidents and provides career paths for those previously disadvantaged. Formerly, conditions were characterised by poor education, legal restrictions on qualifications for many, wide geographical supervision spans, excessively large work teams and privileged opportunities and remuneration for a few. This resulted in tall vertical hierarchies. Now education, training and qualification based on merit, the concentration of a high density of skills at the rock face and smaller supervision spans have resulted in a vertical hierarchy that has been virtually halved.

Education and training

This strategy will not achieved overnight, but progress is being seen. In 1994/95 a survey of 40,000 employees was carried out to assess literacy and numeracy levels in the former Gencor gold mines. Ninety-seven percent of the population possessed sub-grade 3 levels of numeracy (about the level of a 10-12 year old), and 91% possessed sub-grade 3 English literacy. An adult education programme was then implemented with the full involvement of the National Union of Mineworkers and expanded into the new and larger Gold Fields. Fully six percent of all employees are in part- and full-time training, distributed between the lower numeracy/literacy levels of training, and the advanced training of grade 9 candidates and mining and engineering candidates.

To date, 800 qualified miners from the formerly disadvantaged employee group have entered the programme, with a further 400 such miners to be trained per annum. Seven miners have already progressed to become candidates for aspiring manager ranks as trainee Mine Overseers.

Gold Fields Limited was created from the merger of the gold interests of Gold Fields of South Africa Limited and Gencor Limited on 1 January 1998. Gold Fields' core assets are three of the world's finest gold mines – Kloof, Driefontein and the Southern Free State complex around Beatrix. It is today the world's fourth largest gold producer (3 million attributable ounces per year) and has the second largest reserves (117 million attributable ounces).

Many of the principles embodied in the above types of restructuring have been tested successfully in the former Gencor. The lessons learnt will be employed to optimise the process in Gold Fields and to sustain the benefits achieved in both costs and efficiency.

Conclusion

Gold Fields believes that South Africa can regain its competitive edge, and it is vital that it do so. Given the environment of a growing global market, the industry offers the greatest single employment opportunity of any in the country for those that can successfully meet the challenges posed by international competitors and the dynamic gold price and currency exchange rates.

The industry must urgently focus on safety and productivity at the face, and on overall cost effectiveness, which will lead to re-establishing an international competitive edge. Genuine productivity increases that result in a lowering of pay limits with a consequential increase in ore reserves, a lowering in the cost of capital and infrastructure – all underpinned by the development of people – represents the only way forward. ■

Tom Dale

Tom Dale is a mining engineer who has worked for 22 years in the South African gold mining industry. He also spent four years as a mining analyst with a Johannesburg stockbroker. He became Managing Director of Gengold in July 1995 and was appointed Chief Operating Officer of Gold Fields Limited on the formation of the company in January 1998. He became Managing Director of Gold Fields Limited in May 1998.

Revised Silver Weighing & Packing Procedures

By Douglas Beadle, N.M. Rothschild & Sons Limited

The LBMA Management Committee approved the following changes at their meeting on 28th October 1998:

- The weighing of silver on either a beam balance or an electronic scale with immediate implementation
- Various changes to the silver good delivery specification, in particular changes to the permitted weight tolerance and the introduction of minimum and maximum bar dimensions (see box below)
- The establishment of a list of LBMA Approved Weighers in the United Kingdom
- Various changes to London packing and delivery procedures with immediate implementation (see box p. 6)

Electronic Scales

Of these changes, the first is the most radical and important as it will facilitate the handling of the large quantities of silver that flow through London whilst also recognising improved weighing technology. Allied to this initiative are the changes to the specification for good delivery bars. These changes will make handling of the bars easier. Additionally, the greater level of standardisation will help minimise the impact of any inherent variants in an electronic scale, thereby resulting in greater weighing accuracy.

Electronic scales used to weigh silver in London must comply with the following criteria:

1 Capable of weighing silver from 500 ounces to 1250 ounces troy (to cover the range of bar weights most frequently encountered)

2 European Union Verification interval not to be greater than 0.1 ounce troy. (to match the legally required performance with LBMA requirements)

3 Readability less than 0.1 ounce troy (to enable the user to see the rounding down of the reading to 0.1 ounce troy).

4 Internal calibration weight, which can be activated automatically or via a keyboard – calibration should be undertaken on a daily basis (to enable the calibration of the instrument to be corrected in use after it has been sealed when verified by a Weights and Measures Authority)

5 Maximum eccentricity error[1] not greater than 0.02 ounce troy

6 Maximum linearity deviation not greater than 0.02 ounce troy

7 Repeatability[2] not greater than 0.02 ounce troy. (to ensure combined effects of criteria (5), (6) and (7) do not invalidate (2))

8 Uncertainty of calibration measurement less than 0.05 ounce troy (to ensure that the combined uncertainties during calibration do not exceed a value which would affect the validity of readings taken, e.g., includes errors contributed by the calibration weights used)

9 Capable of Weight and Measures Verification for weighing silver (ie a Class I or II balance/scale having a National or EC type approval certificate. (to enable instruments to be legally used as per United Kingdom regulations)

10 Calibrated with an inbuilt factor of not less than 0.004 ounce troy in favour of the bar. (to be consistent with the method used when bars are weighed on a beam balance)

[1] Eccentricity error: The weight of the bar can vary depending upon where it is placed on the scale.

[2] Repeatability: A bar that is weighed a number of times will not register exactly the same weight each time.

CHANGES TO SILVER GOOD DELIVERY SPECIFICATION

	Minimum	Maximum
1. Weight	(troy ounces)	(troy ounces)
Previous specification	500	1250
New specification*	750	1100
2. Dimensions*	(millimetres)	(millimetres)
Length	225	345
Height	90	115
Width	110	140

3. Bars are now to be stamped with their year of manufacture (four digits).

4. It is no longer a requirement that the weight be stamped on the bars. If it is so stamped it may be shown in either troy ounces or kilograms.

All other good delivery specifications for silver as per the LBMA Handbook and as detailed on pages 12 to 14 of the November issue of the Alchemist remain unchanged.

** New good delivery applicants to comply immediately, existing Acceptable Refiners to comply with all production after 1 January 2000*

It is recommended that the calibration is also periodically checked using external stainless steel Class F1 weights complying with Organisation Internationale de Métrologie Légale (OIML) standard RIII.

The scales should remain powered continuously. If for any reason the scales have been disconnected from the mains or switched off, they should not be used until they have been powered for at least one hour.

Silver will, regardless of whether it is weighed on a beam balance or electronic scale, continue to be weighed in multiples of 0.10 ounce troy. Where silver is weighed on an electronic scale, the inbuilt factor of 0.004 ounce troy in favour of the bar in the calibration will always necessitate rounding down to the next 0.10 ounce troy, including those cases where the reading on the scale is .00 ounce troy (e.g. a bar showing 1009.00 would be declared as 1008.90 ounce troy).

No changes are proposed to the established procedures for weighing silver on a beam balance.

In determining the above criteria the LBMA sought the advice and assistance of Jagger & Jagger – Legal Metrology Consultants (Fax: 01494 866570).

As far as the LBMA is aware, the Precisa Model 40000 G SCS electronic scale is currently the only scale available that meets the above criteria for weighing in troy ounces as opposed to kilograms. When buying a scale the purchaser should ask the manufacturer to provide written evidence that the EU Verification has been carried out and ask for a copy of the approval certificate. In this case it is understood that EU Verification has been carried out by Buckinghamshire County Council Trading Standards.

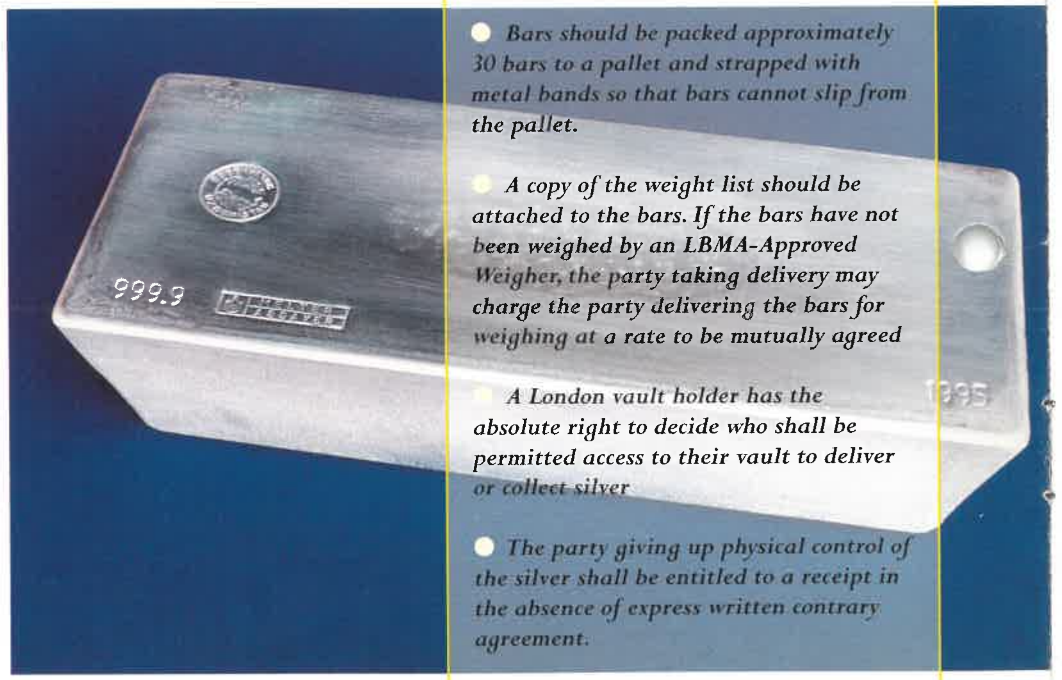
Whilst the above criteria relating to electronic scales will apply to silver weighed in London, overseas producers whose production may find its way into the London Market will need to ensure that their electronic scales are of a comparable standard. Otherwise, they run the risk that their silver will continually have to be marked down, potentially damaging their reputation in the market.

In order to ensure the integrity of the London Market, all silver entering it will henceforth need to be weighed by an LBMA-Approved Weigher. The LBMA Physical Committee has been delegated to assume responsibility for producing and maintaining a list of Approved Weighers in the United Kingdom, which will be published in due course. Approved Weighers will have to satisfy the Physical Committee as to their weighing capability and procedures at least once a year.

The LBMA are researching whether any changes are feasible or appropriate to its established procedures for weighing gold. ■

Douglas Beadle

Dougie Beadle is an Assistant Director of N.M. Rothschild & Sons Limited, whom he joined in 1964. Dougie is primarily responsible for treasury legal documentation. He represents the LBMA on VAT working parties and is also a member of the LBMA Physical Committee.



PACKING & DELIVERY PROCEDURES

The following requirements now apply to all silver to be delivered into the London Market.

- ***All silver should be packed in a safe manner on a suitable pallet, which is in a good safe condition.***
- ***Bars should be packed approximately 30 bars to a pallet and strapped with metal bands so that bars cannot slip from the pallet.***
- ***A copy of the weight list should be attached to the bars. If the bars have not been weighed by an LBMA-Approved Weigher, the party taking delivery may charge the party delivering the bars for weighing at a rate to be mutually agreed***
- ***A London vault holder has the absolute right to decide who shall be permitted access to their vault to deliver or collect silver***
- ***The party giving up physical control of the silver shall be entitled to a receipt in the absence of express written contrary agreement.***

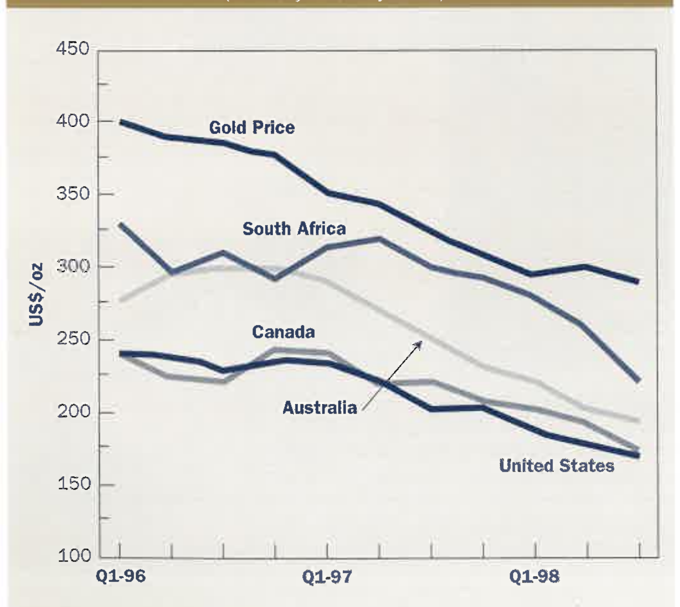
If the above criteria are not met, the London vault holder shall be entitled to reject delivery. Any costs incurred will be for the account of the party seeking to make the delivery.

Gold 1998 - Update II
A Disappointing Performance

By Gold Fields Mineral Services Limited

Gold averaged just $294/oz in 1998, its lowest level since 1978. Due to a lack of alternative hedges twenty years ago, the kind of turmoil seen on financial markets in 1998 would have resulted in a very different price trend then. Although gold's decline was temporarily reversed in the third quarter – following the collapse of the rouble, the fall in the dollar against the yen and the failure of Long Term Capital Management – the rally in the price was rather disappointing, given this combination of events. This was because the price spike was largely based on short covering. Very little fresh money came into gold; instead, investors sought refuge in government bonds.

Major Western World Producers' Cash Costs
(in money-of-the-day terms)



The lack of serious investment interest on the long side meant that gold's own supply/demand fundamentals and the wider economic environment in which these were operating largely determined the price. As regards the economic situation, first East Asia and then the world economy as a whole were to experience a fairly sharp downturn in GDP growth. Although gold demand in the OECD held up well last year, the same cannot be said for East Asia. Hundreds of tonnes of scrap flowing out of the region, causing it to become a net supplier to the international market during the first half. In "normal" times East Asian demand would instead have provided a floor to the price at a much higher level, in fact, probably above $300.

Supply

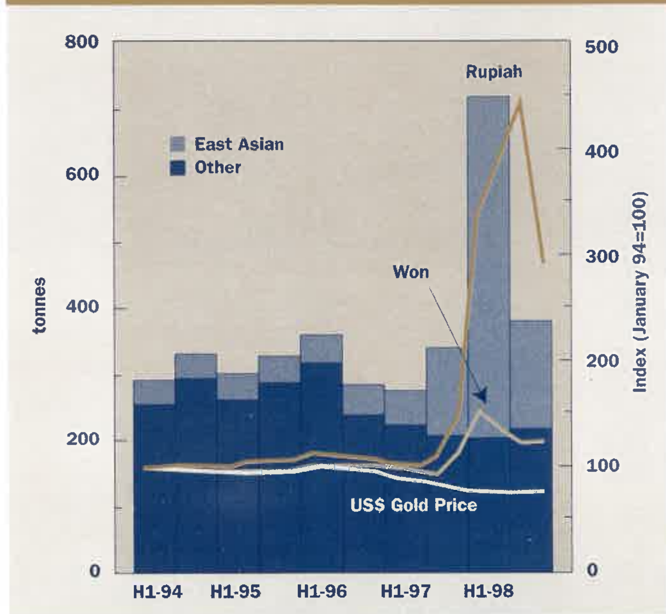
Total supply declined by less than 2% during 1998. However, to conclude from this number that nothing changed on the supply side of the market last year would be a mistake. In fact, the composition of the total supply number changed dramatically, partly in response to unprecedented movements in local gold prices. In 1997, the "deficit" between mine production and total fabrication demand – 1,418 tonnes – was filled by similar volumes of producer-hedged gold, central bank sales and scrap, as well as a sizeable amount of disinvestment. Last year, however, these components shifted markedly towards scrap (which rose by 79% year-on-year), with producer hedging making a rather modest contribution. In both years, it was gold from vast above-ground stocks that filled the "deficit" in one form or another.

The prominence of scrap supply in the market in 1998 was a natural consequence of localised economic distress and historically high local gold prices, resulting in more than 1,000 tonnes flowing into the market during the year. Although GFMS do not expect this phenomenon to be repeated during 1999, it is likely that scrap supply from East Asia will remain at higher-than-average levels as the effects of the economic downturn continue to be felt.

This record scrap flow filled the hole left by much-reduced volumes of producer-hedged gold. Indeed, for the first time this decade, outstanding forward sales declined on a net basis year-on-year, although increased use of options and the delta hedging associated with this activity resulted in net supply to the market from producer hedging. In the coming months, hedging behaviour will be determined as much by producers' views on the outlook for gold as actual price developments. As a general rule, GFMS believe that the industry is underhedged and further hedging can be expected on any upturn in the price.

Producers showed their resilience to weak prices by adding 57 tonnes to mine production. During the first three quarters, weighted average total cash costs of production dropped sharply to around $210/oz, and by the third quarter, average total cash costs had dropped convincingly below $200/oz. Although a substantial proportion of these reductions was due to currency effects, it is clear that miners can continue producing, indeed, opening new mines, at current prices. In the short term, the outlook is for mine output to continue to expand, albeit at a slower pace.

World Scrap Supply



In 1998 the official sector was much less in the news than was the case the previous year, when the market's near-obsession with central bank sales was a driving force in price-determining behaviour. Nevertheless, central banks were no less active last year. GFMS estimate that net sales were 8% higher than a year ago. Although there have been no announcements confirming large-scale sales in the second half of 1998, this was convincingly suggested by market indicators and anecdotal evidence. GFMS's expectation is for further net sales and lending during the first half-year of this year.

Demand

Total fabrication demand in 1998 held up primarily due to increased Indian, European and North American jewellery demand, which almost completely offset the collapse in East Asia. Indeed, East Asian demand for "new gold" – gold bought on the international market as opposed to locally produced scrap – fell to such low levels that the region could be became a net supplier to the international market in the first half of 1998. The magnitude of the collapse in East Asian demand suggests how substantial growth in the other regions needed to be to hold the year-on-year decline in world fabrication to just 3%.

While jewellery continued to dominate the demand picture in 1998, a number of significant developments could be observed in the area of investment. On the one hand, coin fabrication increased by 26% during the year; on the other, a 54% decline was recorded in bar hoarding. More important to the market's overall price equilibrium, though, is North American/European investment. GFMS's investment/disinvestment number is a residual derived from the sum of all the other supply-and-demand components, and as such is a useful indicator of what has been happening at the "margin". During 1998, investment, particularly in the second half, was an important factor underpinning the price at a time when the fundamentals still looked weak. However, investment was quite modest, given the seriousness of the crisis at the time, taking the form of short covering rather than a genuine move to the long side.

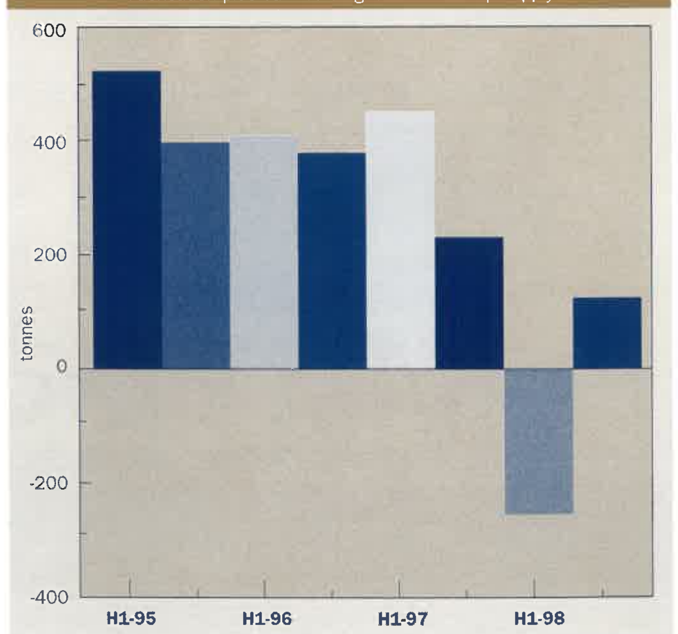
Outlook

Developments on the supply side in the past year will continue to influence price formation in 1999. The GFMS view is that continued flows back into the market from above-ground stocks in the form of jewellery scrap and official sector sales and lending will continue to constrain the market on the upside. Perhaps even more importantly though, mine production costs have plummeted in the past year. The implications are firstly that mining companies can maintain production levels for the foreseeable future, and secondly, that further hedging could be done even in the absence of a substantial price rally, as the margin which would be locked in could be quite attractive.

As for demand, GFMS suggests that it is likely to remain weak in the first half of this year. Of pivotal importance to any view of the demand side is not simply what will happen to the dollar gold price but also to local gold prices and incomes. Many countries are still vulnerable to both income and exchange rate shocks that could have serious implications not only for demand but for supply as well (in the form of scrap). In the absence of any major shocks, GFMS expect currency weakness, a return to disinvestment, falling/stagnant incomes plus a high level of jewellery trade inventories to limit growth in total demand. Thus, any further recovery in East Asian demand is likely to be offset by falls in the other major markets, namely India, North America, Europe and the Middle East.

In short, the poor state of the world economy and the balance of its own supply/demand fundamentals mean that gold is unlikely to break out of the $270-$310 range in the first half of this year.

East Asian Demand for "New Gold"
Fabrication plus bar hoarding less total scrap supply



World Gold Supply and Demand
(in tonnes)

	1997	1998E	y-o-y
Supply			
Mine production	2472	2529	2.3%
Official sector sales	406	437	7.6%
Old gold scrap	611	1094	79.2%
Net hedging	468	100	-78.7%
Disinvestment	270	–	–
Total Supply	4226	4159	-1.6%
Demand			
Fabrication	3890	3770	-3.1%
Bar Hoarding	337	154	-54.1%
Investment	–	235	–
Total Demand	4226	4159	-1.6%

GFMS can envisage circumstances causing gold to break above $310, although they do not seem particularly probable. For instance, a serious threat to global financial stability, possibly triggered by a collapse in world stock markets (arguably they have far more downside potential than upside), combined with a large fall in the dollar, could stimulate buying interest from individual investors as well as from the funds. Unless there is an important shift in producer attitudes to the price, hedging will act to constrain any sustained break-out above $310.

On the downside, there is still the possibility of a further series of devaluations in the major consuming countries like India and China, causing a sharp fall in demand (and the potential for net supply from scrap). If in this scenario miners decide to lock in at prices below $300, perhaps as low as $285-$295 (especially in light of the sharp fall in costs last year), the price could well move below $270. ■

Gold 1998 - Update II *was published on 12 January. Copies can be ordered at a price of £115/$190 from:*
Gold Fields Mineral Services
tel: (+44) 171 539 7820, fax: (+44) 171 539 7818
email: gold@gfms.co.uk, internet: www.gfms.co.uk

December 1999
Options Expiry Dates

In order to allow for the public holiday declared on Friday 31 December 1999, the Management Committee has recommended the following schedule for option settlement dates:

Existing contracts
Expiry date: Wednesday 29 December 1999
Settlement date: Thursday 30 December 1999

New contracts
Expiry date: Friday 24 December 1999
Settlement date: Thursday 30 December 1999

Gold and Silver Fixing Prices Now in Euros

With effect from 4th January 1999, the London Gold Market Fixing Limited and The London Silver Market Fixing Limited will additionally publish official London gold and silver Fixing prices denominated in Euros for reference purposes.

Interview *with Robert Pringle, Director of the Public Policy Centre of the World Gold Council*

By Susanne M. Capano

Robert Pringle has been Director of the World Gold Council's London-based Public Policy Centre since 1997. As a founder and first Executive Director of the Group of 30, and the founder of Central Banking Publications, Pringle knows his way around the sometimes arcane world of central banks.

Why did the WGC decide to form the Public Policy Centre?

The PPC was set up partly to monitor and influence developments in the gold-related business of the world's central banks and official institutions and partly to support the WGC's effort to promote liberalisation of world gold trade.

Because our members include many of the world's biggest gold mining companies, we are often accused of being partisan. Of course we are – we speak out on behalf gold's historical importance as a reserve asset, which has not disappeared.

There have been quite a few official sector sales in the past decade. Hasn't the WGC shut the stable door after the horse has bolted? Some analysts feel that central banks now regard gold reserves as antiquated.

They are profoundly mistaken. In the midst of an unprecedented bull market in the equity and bond markets of the developed world, it's easy to take the view that the reasons for holding gold have diminished. But because a view is plausible doesn't mean it is right. Central bankers and others need to be reminded why, throughout history, it has been a vital part of a national economy to hold strong gold reserves – to defend the currency and to ensure that, come what may, the government would be able to carry on trading and supporting its citizens. As a financial asset, gold is no-one else's liability, is remarkably portable and liquid, and has successfully achieved what it was designed for – the preservation of long-term value. These eternal verities have become overshadowed by the culture of the fast return. We shall see what happens when the equity boom explodes or when inflation returns.

Nevertheless, there are plenty of analysts who argue that central bank gold sales will increase. Are they right?

Not at all. Some will sell, yes, but others will require gold: the net balance is likely to swing about quite a bit in the next few years. There is a lot of ill-digested rumour in the marketplace. Take the example of Switzerland. In late 1997, writers gasped at the "news" that the Swiss National Bank (SNB) was about to sell up to half of its 2,590-tonne gold reserves. Not true. The initial shock-horror headlines failed to grasp the underlying complexities in this issue. We published a report in October 1998, pointing out these key facts:

– any possible SNB gold sales are dependent upon one and possibly two national referenda, the voting for which is not a foregone conclusion.

– even if approved, such sales will not start before 2001 or 2002.

– the sales would then stretch over perhaps a decade and will not feed more than 100 tonnes a year into the market.

What the PPC does is to mount a series of initiatives – through research, lobbying, and presentations – to remind central banks and other official financial institutions of the long-term advantages of holding gold as part of a diversified portfolio. And we are hopeful that as a result of our work, some might add to their holdings. Many analysts tend to forget the acquisitions, such as Poland's purchase of 74 tonnes, which was revealed by the PPC last August.

What do you expect will happen with the gold holdings of Europe's central banks?

Much of 1998 was occupied by doomsday prophecies that the European Central Bank might announce that it would hold no or minimal gold in its reserves. It ultimately decided that 15 per cent of reserves would be in gold, a level at which most analysts had said the market would be pleased!

The bearish speculation now is that the National Central Banks (NCBs) in the Eurosystem have plentiful gold that they can sell. This is not the case: the ECB will strictly control (under guidelines which it has sadly not yet published) all significant reserve transactions of the NCBs. As part of a large monetary union, NCBs clearly cannot be free to dispose of their gold entirely as they wish.

Official statements from key central banks reaffirm commitments not to sell, such as this from the Bank of France in June 1998: "Neither the US Federal Reserve, nor the German Bundesbank, nor the Bank of Italy, nor of course the Bank of France plan to sell the precious metal."

Where will the PPC concentrate its efforts this year?

Our contacts with Asia's central bankers, through our Asian Central Bank Advisory Board, will be of crucial assistance in getting our message across to the hearts and minds of many of the region's central bankers. We are encouraged by the fact that there have been strong quasi-official public statements from China suggesting that it is looking to increase the share of gold in its reserves. But we will not ignore other parts of the world, such as eastern Europe, including Russia, as well of course as the European Union.

Clearly 1999 will not be easy. But I am convinced that the groundwork we have been laying during the past 18 months will finally begin to pay handsomely this year. Let's hope so. ■

The View from the Executive

Editorial comment by Chris Elston, Chief Executive, LBMA

There is no such thing as a typical day at the LBMA.

When I was recruited to this job nearly 4 years ago the then Chairman, Alan Baker warned me to be ready for anything. He was right. No one can predict what will cross my desk on any given day.

Servicing the LBMA's five Committees is an obvious continuing function of the Executive, but many new ones have arrived as we have increasingly taken over work that used to be handled by dedicated individuals in the market. For example, the Association's monthly management accounts, budget, VAT returns and Corporation Tax returns are all now produced in-house.

From small beginnings,our public face, the *Alchemist*, has grown bigger – and, we hope, better. The commissioning of articles, editing and layout now occupy much of our PR Manager's time. In addition to the *Alchemist*, she is beavering away on a new LBMA web-site, handling press enquiries, liaising with the wire services on GOFO and SIFO pages and working on a revised edition of the LBMA Brochure.

We have increased two-way communication with refineries on the Good Delivery List – monitoring their continued adherence to the relevant criteria by means of biennial questionnaires and keeping them better informed through the *Alchemist* and other communications. We regularly update the Good Delivery List, which has been copyrighted, and it will shortly be showing a greater range of information.

Some tasks fall mainly to Committees, but implementation still rests here. For example, the Physical Committee are designing a new Automated Matching System and have revised weighing procedures and specifications for silver bars (see article on page 4). The Executive also works with the Public Affairs Committee on our seminars, informing a wide cross-section of the market on relevant subjects and providing a forum to get together.

Other issues on my desk are indicative of the increasing range of topics to which various Committee members devote their time and expertise. From Brussels, there is the EU VAT harmonisation for investment gold and the EU Investment Services Directive to react and respond to. Closer to home, there is the new regulatory regime under the Financial Services Authority to adapt to, which will eventually replace the Grey Paper on wholesale markets and the London Code of Conduct with something new.

And in our own backyard, we are implementing constitutional revisions to meet the changing environment. The Management Committee presented proposals to members covering the nature and functions of the Association, whether to produce a standard LBMA contract and Rule Book, the criteria for Market-Makers and the clearing function, a potential category for Overseas Associates, the structure of Committees, and the powers and responsibilities of the Executive. All were approved at an Extraordinary General Meeting on 2 February. We aim to present a revised constitution to Members for their endorsement at the next AGM.

While all the above is going on, we continuously deal with a wide range of queries from the press and public around the world – "I need the pm gold fixing price on a daily basis from 1964 to date." "What is the difference between a lease and a swap?" "I have 5,000 tonnes of gold a month to sell from a reputable supplier".

What's going to turn up tomorrow? Might as well try forecasting the gold price.

Don't be discouraged by the above from getting in touch if you think we can help on anything. I'm all for increasing lines of communication. ■

To the editor:

How times have changed...but have they really? Gold is still dug out of the ground – albeit by improved methods – doré is shipped to refiners, who produce good delivery bars, dealers buy and dealers sell, wholesalers buy and finally, an end-user takes possession. The major change is in the "dealers buy and dealers sell" section. It would be hard to put a figure on it, but surely the number of times the same metal trades or spawns other trading in different forms must have increased tenfold at a bare minimum. The dealing community may therefore have presented a false impression that the "real" market is confined to a dealing desk. It is not until moving outside this environment – as I did recently – that the true extent of the market is realised. Reality includes ordinary factors such as fog delays as much as the intricacies of implied volatility.

The role of the dealer was traditionally justified as a facilitator, someone who could iron out the bumps in the supply chain. By contrast, today it is dealers and non-industrial clients like funds who create bumps that end-users can either try to avoid or use to their advantage. Sometimes avoidance is chosen out of moral reasons, sometimes out of ignorance. But where clients do make use of exotic products, the intricacies may only be understood by a minority at both parties. Therefore, although the dealing world is highly specialised, it is still just another link in the chain.

Not many dealers will make the same type of move I did, but there are other ways of improving communications. The LBMA have made a start on transparency with their turnover figures. Why not extend this to an openness of the many different aspects and problems all members of this market face?

One way is to acquire some first-hand experience. How many dealers have been down a gold mine or visited a refinery? How many have even visited the vaults? I would suggest a minority.

Or perhaps using the forum of the LBMA, members with specific knowledge of one sector of the market could offer an objective overview, showing where difficulties arise in interfacing with the rest of the market. ■

Whichever route is chosen, it could be a real eye-opener.

John Coley, *Business Development Executive, Brink's Limited*

LBMA News

By Chris Elston, Chief Executive, LBMA

Membership changes

• Rabobank International became an Ordinary Member on 1 November 1998.
• Via Mat International Ltd. became an Ordinary Member on 1 February 1999.
• Merrill Lynch, Pierce, Fenner & Smith (Brokers & Dealers) Limited resigned their Ordinary Membership on 31 December 1998.
• Billiton Metals Limited have moved. Their address is now 12th Floor, One America Square, 17 Crosswall, London EC3N 2PT. Their telephone number is (0171) 488 3161.

Good Delivery List

It should be noted that the LBMA holds the copyright of the London Good Delivery List of Acceptable Refiners of Gold and Silver Bars, as a result of which further reproduction and dissemination of the List should be done only with the express authorisation of the LBMA and acknowledging the LBMA's copyright.

Good Delivery List changes

Additions:

Gold – Indonesia – PT Aneka Tambang (Persero) Tbk, from 1 January 1999.
Russia – Ekaterinburg Non-Ferrous Metal-Processing Plant from 11 January 1999.
Russia – Federal State Enterprise Novosibirsk Refinery from 11 January 1999
Silver – People's Republic of China – Zhuzhou Smelter from 1 January 1999.

Name change:

Silver – Peru – Following privatisation Empresa Minera del Centro del Peru (Centromin Peru) is now listed as Doe Run Peru SRL.

Transfer to Former List

Gold – Singapore –With the cessation of gold bar production Degussa (Private) Limited retrospectively w.e.f. 20 November 1998.

Committees

Management Committee

With his retirement from NM Rothschild and Sons Limited, Rob Ashley's place on the Management Committee has been filled on a co-opted basis under Article 34 by Simon Weeks (The Bank of Nova Scotia-ScotiaMocatta).

The main issue before the Management Committee recently has been the proposed changes to the LBMA's Constitution, which aim to put the Association in the best possible position in a changing environment. They were the subject of wide-ranging discussion at an open meeting of the Association on 21 January and were voted on at an Extraordinary General Meeting on 2 February.

Public Affairs Committee

As noted on page 12 , the Association's Fourth Spring Seminar is to be held on Thursday 29 April. Further details from the Executive.

The Association is planning to hold a Cocktail Reception at The Wallace Collection on the evening of Sunday 13 June on the occasion of the *Financial Times* World Gold Conference.

Physical Committee

Work on the Automated Matching System is gathering pace and a Project Manager has been appointed to bring the system through to completion. As described in the article on page 4, new specifications and weighing procedures have been introduced for silver bars. The Physical Committee are now turning their attention to the current weighing arrangements for gold bars.

People

Congratulations to Robert Guy, Director of NM Rothschild & Sons Limited and founding Chairman of the LBMA, who has been appointed non-executive Chairman of the Board of Handy & Harman Refining Group Inc. The Handy & Harman Group is a member of the Golden West Refining Group, operators of precious metals refineries in Australia, Canada, the United States and Papua New Guinea.

"I SEE THE EDITOR HAS MANAGED TO TRANSMUTE THE BASE METAL OF YOUR ARTICLE INTO PURE GOLD."

DIARY OF EVENTS

22-23 February 1999
5th Australasian Mining Conference, Perth, Western Australia, sponsored by AIC Worldwide

23 February 1999
Release of CPM Group's Silver Survey and Silver Mining Investment Conference, Marriott World Trade Center Hotel, New York.

1-4 March 1999
Society of Mining Engineers Annual Meeting and Exhibition, US Society for Mining Metallurgy and Exploration, Denver, Colorado.

10-12 March 1999
1999 Australian Gold Conference, Perth, Western Australia.

17-18 March 1999
Asia and the Future of the World Economic System, The Royal Institute of International Affairs, sponsored by the World Gold Council, Chatham House, London.

24-26 March 1999
International Swaps & Derivatives Association, Inc. 14th Annual General Meeting, Hotel Vancouver, Vancouver.

28-30 March 1999
The Gold and Silver Institutes's 1999 Annual Conference, Marriott's Camelback Inn, Scottsdale, Arizona.

29 April 1999
LBMA 4th Spring Seminar, The Ironmongers' Hall, Barbican, London (see box on page 12).

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.

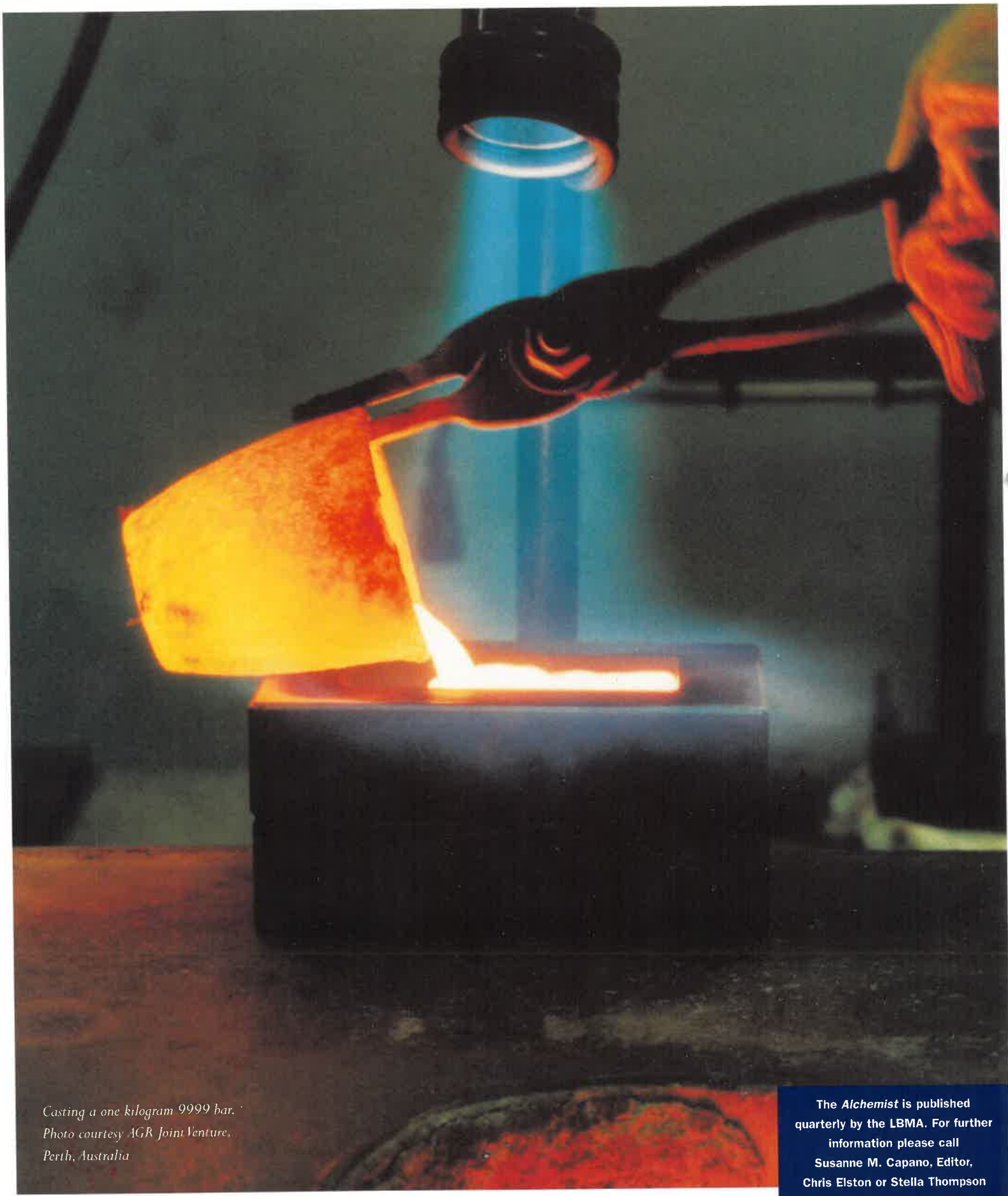
27 May 1999
LBMA Annual Golf Day, Brickendon Grange Golf and Country Club, Herts, UK.

2-3 June 1999
N.E. Investment in Mining Conference, New York, sponsored by International Investment Conferences.

2-3 June 1999
Keys to Success in Latin American Mining, Keystone, Colorado. Institute of the Americas.

13 June 1999
LBMA Cocktail Reception, The Wallace Collection, London.

14-15 June 1999
The *Financial Times* World Gold Conference, Inter-Continental Hotel, London.



Casting a one kilogram 9999 bar.
Photo courtesy AGR Joint Venture, Perth, Australia

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Forecast '99

Twenty-four contributors predict the outlook for gold and silver prices over the coming year.

As in past years, all forecasts (Gold becalmed? Silver buffeted?) are backed up by world-class insight and analysis from a world-wide group of contributors. If there is any sense in this market to be made, they'll make it. And it's guaranteed – that they won't agree.

To test yourself against the best – starting with last year's gold bar winners Ted Arnold (average gold $300) and Egizio Bianchini (average silver $5.50) – see the special 6-page supplement.