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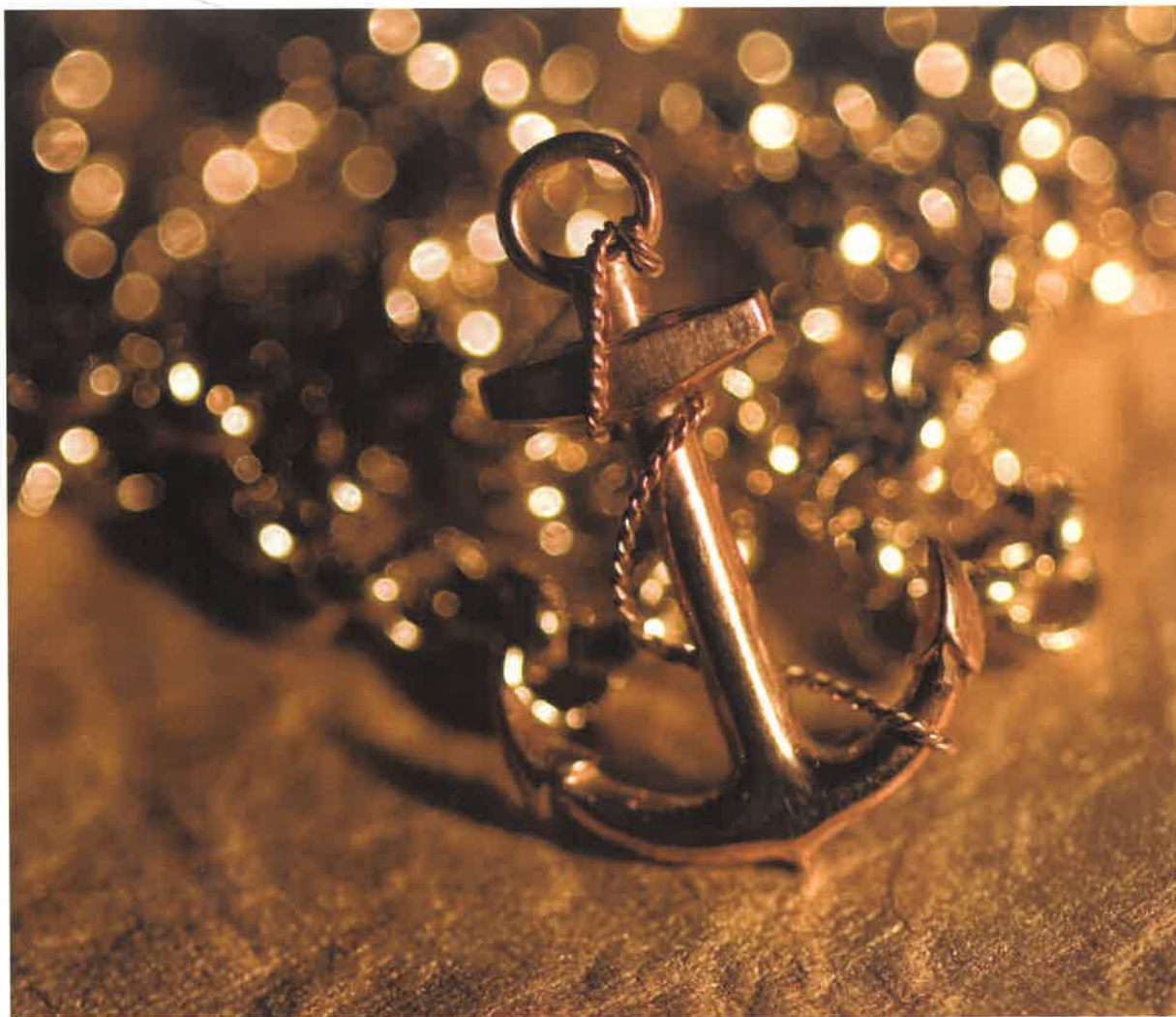
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Anchor – according to Samuel Johnson's Dictionary of the English Language, 1755, an "anchor" is a heavy iron, composed of a long shank, having a ring at one end to which the cable is fastened, and at the other branching out into two arms or hooks, tending upwards, with barbs or edges on each side. Its use is to hold the ship, by being fixed to the ground. Dr Johnson added that "anchor" is used as a metaphor, for anything which confers stability and security.

Like the anchor, gold has been a symbol of stability and security since it was first used by man seven millennia ago.

Industry Consolidation and the Gold Price

By Trevor Turnbull, Director of Gold & Precious Metals Equity Research, Scotia Capital Inc

Gold industry consolidation is long overdue and market conditions are such that it may finally happen. Sir John Harvey-Jones identified defragmentation of the gold mining business as the number one priority of the sector during his 2001 presentation to the LBMA entitled

Troubleshooting the Precious Metals Industry.

At the time of Sir John's address, jewellery demand was easing and companies were facing rising costs. Today those issues are just as concerning, and large mining companies are challenged with replacing reserves and sustaining production while competing for a shrinking pool of new discoveries. Smaller companies and junior explorers are also facing limited access to credit and capital amidst escalating volatility in the equity and debt markets. It is no coincidence that the latest drivers pointing to consolidation are also indicative of higher sustained bullion prices to come.

State of the Industry

The gold sector is extremely fragmented with the top tier of producers only controlling a small percentage of global mine output. This is in contrast to other segments of the mining industry in which a few large companies dominate the production of commodities such as platinum, uranium, nickel, copper etc (Figure 1). The inherent nature of the gold business is such that there are very low barriers to entry and little to be gained from vertical integration.

Junior exploration and development companies play a vital role in the discovery process, but their ability to bring new mines



into production is in jeopardy. The smaller and nimble companies are still very good at finding mines and advancing them towards production. In fact, the juniors have been responsible for some of the most noteworthy new deposits of this cycle. For example, Aurelian's Fruta del Norte in Ecuador, Virginia's Eléonore in the James Bay area of Quebec, Ivanhoe's Oyu Tolgoi in Mongolia and Bema's Kupol in Russia.

It is noteworthy that many of the aforementioned discoveries have taken place in areas where the more established mining companies have not been active themselves. This is a principal reason the juniors have been so successful. They are willing to deploy risk capital into new areas and cast a wider net for discoveries. In the process, the first movers can develop deep local knowledge and begin breaking trail for future companies doing business in the region. Examples include pushing for and helping to establish up to date mining legislation and land tenure precedents. The majors have found a few notable exceptions such as the still expanding Cortez Hills deposit in Nevada now owned by Barrick and first identified by Placer Dome and Barrick's Lagunas Norte deposit in Peru. By contrast with the juniors and not surprisingly, the discoveries made by Placer Dome and Barrick were not far from existing operations.

The Case for Consolidation – Ounces not Synergies

Gold companies consolidate primarily as a means of achieving growth and sustainability. In the past, acquisitions have often not resulted in real per share growth of

earnings, cash flows, reserves or production. This is because consolidation is most commonly done on a share exchange basis and the transactions are nearly always dilutive to near-term financial metrics. Likewise reserves and resources as well as production often decline on a per share basis.

However, now, with junior explorers trading down to record low levels, resources can be acquired on a per ounce basis for what a company might expected

to spend discovering new deposits organically through exploration. Figure 2 indicates that a number of multi-million ounce ore bodies can be acquired for less than \$20/oz of measured and indicated resources. Even better, ounces like these discovered on the stock exchange through corporate transactions usually come with many added benefits.

For example, acquisitions add resources all at once not over many years. The uncertainties associated with exploration are mostly eliminated and in many cases there is advanced metallurgical data, initial engineering studies to determine mining options and permitting that can be well underway. Purchasers can also hope to gain in-depth, local knowledge from inherited personnel and a jump on base line studies for future environmental monitoring.

Consolidation does not bring competitive advantage nor are there appreciable synergies. Gold mining has relatively low barriers to entry, proprietary processing techniques tend to be the exception rather than the rule and downstream processing and marketing offer few benefits from vertical integration opportunities as seen in the base metal sector. In most cases, there are few cost savings to be realized beyond consolidation of exploration efforts and head offices. The far flung locations of many mines tend to eliminate greater synergies.

Fig1 Global Mine Supply of Select Commodities

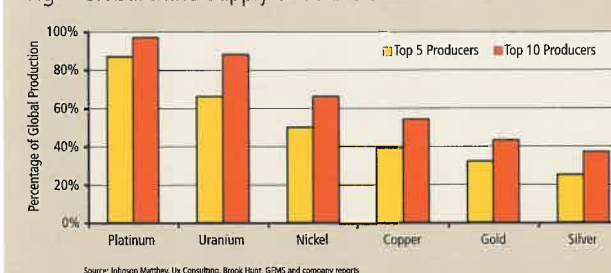
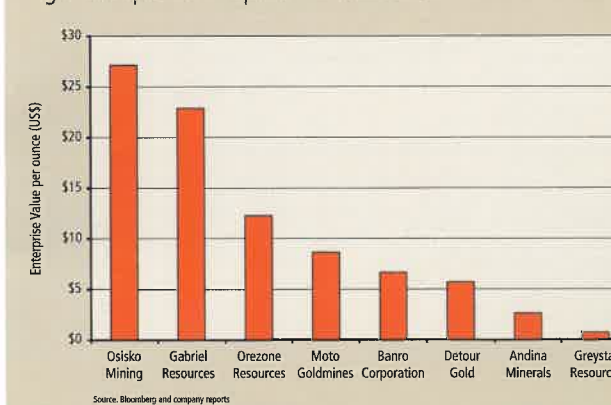


Fig2 Enterprise Value per Resource Ounce



Consolidation in Today's Market Conditions

The risk capital markets have reached the saturation point and access to funding has largely dried up. As a result, exploration companies and smaller producers seeking to develop new projects without the benefit of significant cash flow are being gapped out of the credit and equity markets. This is starkly illustrated by numerous examples of exploration companies with capital requirements well in excess of their market capitalization. For example, many junior companies are now trading at less than \$20 per resource ounce yet their proposed mine development scenarios have capital requirements in the \$100 - \$150 per ounce range. The result being market capitalizations that are a fraction of the companies' funding needs. For companies in this situation, acquisition is the best they can hope for in the near-term.

While development capital may be impossible to secure, many juniors do have the means to continue funding exploration and feasibility study efforts on their properties. These companies can work to increase their resource bases and to add value through refined engineering designs and optimised mine plans.

Luckily, for Canadian explorers, flow-through share financing remains available. This is a government legislated arrangement to encourage exploration that allows investors to receive an immediate tax deduction. The exploration companies essentially pass

exploration expenditure deductions on to investors and in so doing receive a premium to their share price on the issue. In Quebec, companies benefit further from matching funds programmes that enhance exploration budgets.

What Are We Waiting For?

The obvious question is when will the next wave of consolidation take place and will it spark a trend as the potential scarcity of bargains is perceived to be diminishing. The potential acquirers recognize the opportunities that exist under the current conditions,

but the perception now is that cash and credit should be used sparingly. It is also a buyers' market and there is little reason to rush into purchases. Un-financeable juniors are destined to remain so for some time.

Before the market conditions changed so dramatically, acquisitions in the gold sector used to follow the spot price of gold closely. The transactions from the past five years indicate that asset buyers were willing to pay close to 100% of the spot price of gold on a total acquisition cost basis.

The total acquisition cost of a company or asset is determined by three components; the total cash costs of production per ounce, the initial and life of mine capital costs per ounce and the purchase price per ounce.

Interestingly, over the past five years the price of gold has increased dramatically, yet the rule of thumb has generally held true. However, as the sector enters a buyers' market, premiums are expected to decline and acquisitions are unlikely to reflect nearly as much of the spot price of gold.

There are reasons to act sooner rather than later as acquisitions are often proposed when there is a valuation differential. Currently, the junior companies are trading at some of the largest discounts to valuation that we have ever witnessed. Also in many cases base metal prices can have an enormous impact on cash flow and net free cash flow for gold companies and the consensus view is beginning to anticipate less robust pricing for by-product income such as this.

In Any Case Constructive for Gold Price

The price of gold should benefit from the fact that large mining companies are likely to struggle to replace reserves at the current rates of depletion. Likewise, if impaired access to project financing continues, many deposits in the hands of smaller companies are unlikely to come to fruition without help from established producers.

The net result should be beneficial to the gold price as world wide production levels are maintained in a best case scenario, but less likely to grow through the emergence of new junior companies. Hedging is also likely to decline as more projects are financed by senior producers with strong balance sheets and good access to credit without a requirement for revenue protection programmes. ■



Trevor Turnbull is responsible for gold and silver sector coverage of emerging and growing producers. For 2005, he was recognized as *StarMine's Best in Metals and Mining* for 12-month

forecasts. Trevor is a geologist by training and spent ten years in industry throughout North America and abroad. His experience includes several years with Newmont in Nevada and Peru conducting production and exploration programmes and at Barrick's Bulyanhula underground mine in Tanzania. He has an MSc in Mineral Exploration and an MBA from Queen's University in Canada in addition to a BSc in Geology from the University of New Mexico.

THE LBMA INCREASES ITS FEES FOR GOOD DELIVERY APPLICATIONS AND PROACTIVE MONITORING

By Douglas Beadle – LBMA Consultant

With effect from 18th November, 2008, the LBMA has increased the fees it charges for Good Delivery applications. The Phase II sample bar testing fee has been increased from £10,100 to £13,100 for both gold and silver bringing the current total cost of Good Delivery applications to £26,000 and £19,000 respectively (plus VAT where applicable). The Phase II bar testing fee has not been increased for some years and the increase reflects both the increased costs incurred by the LBMA Referees in actually testing applicants' sample bars and also the increased costs incurred by the LBMA in administering the bar testing phase of an application and the associated costs

of transporting bars to the LBMA Referees. A more detailed breakdown of Good Delivery application fees is contained in the LBMA Good Delivery Rules which can be viewed on www.lbma.org.uk.

In January 2004, the LBMA introduced a programme of Proactive Monitoring whereby refiners on the Good Delivery List have their assaying ability regularly tested by the LBMA on a three year rolling basis. To cover the cost of operating the Proactive Monitoring programme the LBMA charges Good Delivery refiners an annual Good Delivery Maintenance Fee. With effect from 1st January, 2009, this fee will be increased from £700 to £1,000 per

metal listed per annum which is the first increase since January, 2004. This increase not only reflects the increased cost to the LBMA of administering the Proactive Monitoring programme but also an increase in costs due to the decision to pay the LBMA Referees for testing the dip samples produced by Good Delivery refiners being tested. Previously the Referees were not compensated for this testing other than by the metal content of the samples being assayed.

The fees received by the LBMA in respect of Good Delivery applications and Proactive Monitoring not only fund the costs directly incurred by the LBMA in connection with those services but also enables the LBMA to provide other benefits to refiners on the Good Delivery List. An example of this is the third Assaying and Refining Seminar being hosted by the LBMA on the 24th and 25th March, 2009, at Armourers' Hall in London which will be free to LBMA Members and Good Delivery refiners. ■

The Third LBMA Assaying & Refining Seminar 2009

The Armourers Hall 23rd-25th March, 2009

81 Coleman Street, London EC2R 5BJ

This seminar creates a forum for representatives from Good Delivery List refiners and others to discuss the technical aspects of the assaying, refining and casting of gold and silver. It is also an opportunity for the LBMA to update participants about the operation of the Good Delivery system. A welcome reception on the evening of 23rd March will allow participants to meet before the formal discussions begin.

As with the previous seminars held in 2005 and 2007, Good Delivery refiners, Members and Associates can attend free of charge. Other organisations may also take part but must pay a registration fee of £200. Registration for this seminar will open in mid-January 2009. Please email collett.roberts@lbma.org.uk for further information.

Programme

Introduction

Remarks by the Seminar Chairman

Keynote Speech, Proficiency Testing and Fitness for Purpose in Analysis
Prof. Michael Thompson, Birkbeck College

Good Delivery List – Recent Developments

Pro-Active Monitoring: Results from the First and Second cycles

The Work of the LBMA Referees

Assaying and Reference Materials

Comparison and Complementarity of Analytical Methods for the Determination of the Fineness of Precious Metals
X-ray Fluorescence Analysis of Silver
A Survey of Available Reference Materials

Development of Silver Reference Materials by the Royal Canadian Mint and the Rand Refinery

LBMA Reference Materials - Project Update

Physical Quality and Weighing

LBMA Visual Guide to Good Delivery Bar Acceptability

Casting: Getting it Right
Use of Ultrasonic Testing on Large Bars
Followed by comments from London vault managers

The London Approach to Weighing

Panel Discussion

Assaying, Reference Materials, Physical Quality, Weighing

The Art of Precious Metal Transformation™

PAMP SA Switzerland - Precious Metals Refinery and Fabricator

Produits Artistiques Métaux Précieux, better known as PAMP, one of the world's largest, independently-held precious metals refineries, provides a comprehensive range of vertically integrated services - from pick up of doré from the mine, through to assaying, refining, hedging services and worldwide delivery of bars.



The largest selection of bullion bars in the world, from 12.5-kilogram to 1-gram bars, PAMP bars are accepted as 'Good Delivery' by the Swiss National Bank; the London Bullion Market Association (LBMA); the London Platinum and Palladium Market (LPPM), and the markets in New York (COMEX) and Tokyo (TOCOM). PAMP is also recognized as a deliverable brand of the Chicago Board of Trade (CBOT) and the Dubai Gold & Commodities Exchange (DGEX).

An active proponent of quality excellence throughout the industry, PAMP is further honored as one of only five 'Good Delivery' Referees of the LBMA.

A wide range of coin blanks in gold, silver, platinum and palladium are supplied to the world's most prestigious mints.

PAMP is also internationally renowned for a variety of sophisticated precious metals products, such as legal tender coins or medals in color, hologram, bi-metallic, or stone-set variations, or with partial or total gold plating.

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The Bombay Bullion Association welcomes the LBMA to the Zaveri Bazaar, November 2007

Mumbai November 2008

The terrible events which unfolded in Mumbai at the end of November and the deaths of more than 170 men, women and children have created a sense of helpless revulsion around the world.

With the close links which have built up over many years between the bullion markets in London and Mumbai, many members of the LBMA will feel this evil act almost personally. It is particularly poignant that just one year ago, the LBMA's annual conference was held in the Taj Mahal Hotel where delegates enjoyed the hospitality of the local market and the courteous efficiency of the hotel staff.

The LBMA wishes to convey its deepest sympathy to all those who have lost family and friends and its support to those who now have to rebuild their lives and restore Mumbai to the warm welcoming city that we remember.

A Heart of Gold

Gold at the Heart of Bangko Sentral ng Pilipinas Reserve Management

By Joni Teves, Treasury Operations Officer, Bangko Sentral ng Pilipinas

I. Overview of Mining in the Philippines

The Philippines is a mineral-enriched country of around thirty million hectares of land area, scattered across an archipelago of over 7,100 islands. Its long history and experience in mining has demonstrated its strong potential for producing gold, silver, copper, nickel, chromite and other metallic minerals through the commercial operations of numerous mines.

At present, only about a half percent of the total land area is covered by mining permits. This means that around 30% or approximately 9 million hectares, which were found by the Mines and Geosciences Bureau to have high potential for mineral deposits, still remains untapped.

Gold deposits in the Philippines tend to be clustered in certain areas primarily in the northern and southern parts of the country. Similarly, data from the Mines and Geosciences Bureau show that the eight operating gold mines in the country are likewise located in the two major islands of Luzon and Mindanao.

The Philippine government is keen on the development of the mining sector and has put in place policies towards this end. One important milestone for the industry is the Republic Act No. 7942 or the Philippine Mining Act of 1995 which is the governing law that regulates the development of mineral resources in the country. One of the primary objectives of the Act is to revitalize the Philippine mining industry by providing fiscal reforms and incentives that will foster the creation of a viable and sustainable inventory of mineral reserves. The incentives include, among other things, income tax carry-forward of losses, income tax accelerated depreciation and investment guarantees. The Act also provides for the infusion of fresh capital through direct investments to finance mineral exploration and/or development activities.

Although dubbed as the 'Philippine Mining Act of 1995', it wasn't until December 2004 that the Act was fully established. It took almost a decade for the Supreme Court to settle with finality the constitutionality of the Mining Act, more specifically on its provisions on the financial and technical assistance agreement (FTAA), which allows foreign equity investments of up to 100%. The 2004

Supreme Court ruling gave the mining sector a boost, with total investments from priority mining projects jumping by over 200% to US\$461 million in 2005 from US\$139 million the previous year. It may be worth noting that first tier priority mineral development projects in the feasibility/financing stage posted substantial growth of more than 1,300% during the same period, rising to US\$60.8 million in 2005 from US\$4.2 million in 2004. Total reported investments since 2004 up to the fourth quarter 2007 was posted at a cumulative amount of US\$1.4 billion.

Philippine Gold Production

Mining in the Philippines has grown over the last five years, with the total value of Philippine metallic mining production increasing by 124%, as it was boosted by a combination of the steady increase in metals prices and growing production volumes. Gold production has increased by 8.2% since 2002, contributing an average of 2% to gross domestic product over the said period.

Given the growth of the gold mining industry, the Philippines is consistently in the top twenty gold producing countries. Last year, the country ranked 18th in GFMS' list of Top 20 Gold Producing Countries, with gold production posted at 38.8 tonnes.

Philippine Gold Exports

The export side exhibited similar growth, with the quantity of gold exports growing from 877,000 fine troy ounces (FTO) to 1.1 million FTO over the last five years. During this time, the Philippines exported a cumulative gold volume of 4 million FTO to 12 countries. The bulk of Philippine gold exports went to Hong Kong (80%), some went to Japan (10%), the United Kingdom

(6%) and Belgium (2%) and the remainder was distributed among Australia, Canada, China, Italy, Korea, the Netherlands, Switzerland and the United Arab Emirates.

II. BSP's Gold Operations – History and Legalities

In 1974, the president of the Philippines directed the then Central Bank to take all necessary steps to establish a Gold Refinery that was suitable in design and capacity for the needs of the country. Gold operations began in 1977, as authorized under Letter of Instruction No. 171 and Presidential Decree No. 793. By October 1977, in compliance with the

requirements set by the London Gold Market (the predecessor of the LBMA) for fineness, weight, marks and appearance, the Gold Refinery Plant, as it was then called, produced its first "good delivery bar". The London Gold Market formally recognized the Gold Refinery as an accredited melter and assayer of good delivery bars in September 1979, after it met its standards. BSP gold bars were hence accepted in the international bullion market as good delivery.

Political developments in the country from the 1980s to the 1990s led to the creation of the following new laws that superseded LOI 171 and PD 793.

RA 7076 states that "all gold produced by small-scale miners in any mineral area shall be sold to the BSP, or its duly authorized representatives, which shall buy it at prices competitive with those prevailing in the world market regardless of volume or weight." This was enacted to promote, develop, protect, and rationalize viable small-scale mining activities. Small-scale mining is a very important industry in the Philippines, accounting for around 80% of total gold production and contributing approximately Php32 billion to GDP in 2007. As such, the Philippine government fully supports the development of its small-scale mining industry.



Meanwhile, RA 7653, provides that "The Bangko Sentral may buy and sell gold in any form, subject to regulation as the Monetary Board may issue." The law also stipulates that the international reserves may include gold, hence BSP's gold buying operations help strengthen the country's international reserve.

III. BSP's Gold Operations

Process

Gold producers, small-scale miners and other individuals may sell their gold at prevailing global market rates at various gold buying stations such as the Mint and Refinery Operations Department (MROD) in Quezon City and the BSP offices in the cities of Baguio, Naga, Davao and Zamboanga. Purchased gold in the form of bars or discs are then refined at the MROD and converted into London good delivery bars. Alternatively, some of the gold may also be manufactured into semi-finished material in the form of grains and sheets for re-sale to local jewellers and industrial users. The BSP may enter into a location swap transaction so that bars held in the bullion vault may be mobilized and made readily available for gold-related transactions in the international market.

Performance

BSP gold purchases from small-scale miners surged by 86% from 1999 to 2003, with annual growth during the period averaging at 17%. This upward trend is a result of the increase in the number of traders transacting with the BSP. This strong growth was followed by a period of consolidation from 2003 to 2007 as the optimum volume may have been reached or as traders held on to their gold stock in anticipation of more favorable prices. In 2007, gold purchases rose to around 1.03 million FTO, reflecting a 7% increase from 2006.

IV. BSP's Gold Reserve Management

Gold reserve management is a challenging task. Although gold is a relatively low-yielding investment in terms of interest, it provides holders with other benefits such as security and diversification. With the Philippines being a major gold-producer, the BSP, as a central bank, seeks to help in the development of the gold mining industry and therefore regards bullion as an essential part of its GIR.

The BSP holds gold for several reasons. First is for security purposes as it is a real asset and it is no one's liability. Further, it is an attractive asset to hold during times of uncertainty as it is considered a safe-haven. Another reason is for diversification as it has a

low correlation with other assets that the BSP manages. Still another reason is that investors prefer to own gold when inflation and inflation expectations are high as this precious metal is considered a hedge against accelerating prices. Finally, the BSP maintains a portion of its reserves in the form of bullion since the Philippines is a significant producer of gold.

BSP's Gold Transaction Modules

Active management of gold reserves is important to the BSP. A number of products are available to enable the Bank to achieve higher returns on gold assets while maintaining a highly conservative risk profile. The menu of gold reserves management products available to the Bangko Sentral ng Pilipinas include: 1) Spot trading, 2) Options, 3) Deposits, 4) Gold-backed loans and 5) Gold financial swaps. Gold can also be used as a financing vehicle, permitting a central bank to reduce the cost of raising funds for the country.

In engaging in these various transactions, the safety of the asset and confidentiality of the transactions are of paramount importance. Hence, the Bank has a strict counterparty selection process, limiting dealings to top international banks. Counterparty credit ratings, financial strength, performance and other factors that determine corresponding exposure limits are therefore considered very carefully.

V. Conclusion

It is worth noting that the outlook for the Philippine gold mining industry remains positive. Total gold production is expected to double due to new projects and new investments. New projects that are now under exploration as well as expected new investments due to positive developments in the mining industry are estimated to bring the total gold production to an average of 66 tonnes annually, up from around 37 tonnes in the last four years.

This rosy outlook for gold mining allows us to presume that small-scale mining will continue to play an important role in the Philippine mining sector as a whole, despite the possible entry of big, foreign mining companies on account of more favorable mining investment conditions that have been put in place. Consequently, BSP gold buying operations is expected to continue as gold bought from small-scale miners remains important. With a contribution of around 2% annually, the absence of the Bank's gold-buying activities might cause a dampening of the growth of international reserves, and deprive small-scale miners access to competitive

prices.

The BSP Gold Refinery will continue to pursue improvement and modernization to conform with internationally-accepted standards. Recent developments have included plans to upgrade equipment in order to improve operations.

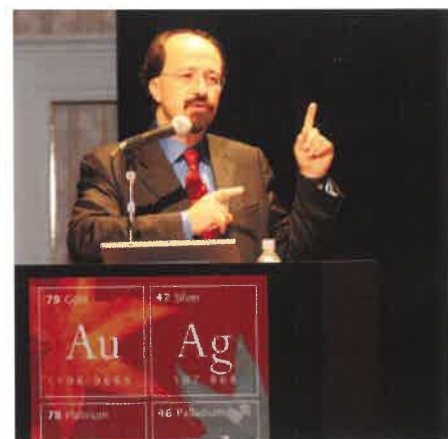
As global markets today face a challenging new landscape that is wrought with a tremendous amount of volatility, managing a country's gold reserves has become more challenging than ever. Indeed the task requires careful planning, with timing deemed as a serious consideration. Suffice it to say that gold will remain an integral element of the Bank's reserves as it provides security and diversification amidst all the uncertainty. The BSP will continue to manage gold reserves as part of its overall portfolio and will maintain its long standing presence in the international bullion market.

1 Small-scale miners are Filipinos who voluntarily form a cooperative duly licensed by the Department of Energy and Natural Resources to engage in the extraction or removal of minerals or ore-bearing materials from the ground. Small-scale mining involves activities that rely heavily on manual labor using simple implements and methods and do not use explosives or heavy mining equipment. BSP's gold buying operations are crucial to small-scale miners as it generates more employment opportunities and provides an equitable sharing of the nation's wealth and natural resource.



Asia in a Volatile World

By Bill Emmott, Former Editor-in-Chief, The Economist



The following is an edited version of the keynote speech made at the LBMA/LPPM Precious Metals Conference in Kyoto on 29th September, 2008

Preamble

My job is to talk about the world economy, with special reference to Asia. Of course, this is a moment in world financial markets when various proverbs come to mind:

We are, as the Chinese say, condemned to live in interesting times.

A saying taken from Japanese politics, however, tells us that an inch ahead is darkness.

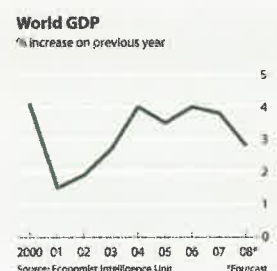
There is also a story of a candidate in a general election who gave a speech in which he said that, under the present government, the country's economy had been brought to the edge of a precipice. Elect his party, he said, and 'we will take a bold step forward'.

We are, though, seeing a bold step being taken in the US. Yesterday, Congress agreed to spend up to \$700 billion on a rescue package for the mortgage-backed securities market. Our questions, therefore, have to be: what are going to be the consequences of that package? What are going to be the consequences of the turmoil and volatility that we have seen in financial markets in the past few weeks and the past year? What might that do for Asia, where such excellent markets for precious metals exist, particularly China, India and Japan?

The Need for Sobriety

We must start with what is not usually present at saké receptions, namely sobriety. We must not fool ourselves. It would be astonishing if there were not quite a deep recession in the US, and almost certainly also in the UK. There will perhaps be a shallower recession in the Eurozone and Japan. Those economies account for more than half of world gross domestic product and, therefore, that is quite a sober prospect. We see a slowdown coming already in the emerging markets, and not only in Brazil, Russia, India and China.

As we take that sober view of the prospects for at least the next 12 months, let us at least remember how strong a position we start in. We have had, in terms of the world economy, the best four to five years that the world has had in the last four decades. As recently as 2001, in the aftermath of the NASDAQ stock market crash and the 9/11 terrorist attacks, we saw a very sharp slowdown in the world economy. This is not, therefore, exactly a new moment.

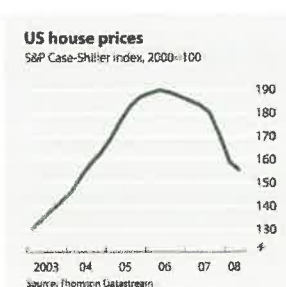


We should also bear in mind that, while we are always dominated in our thinking, because of its importance, by the US and by American financial markets, what we have had and look like having is, in fact, two worlds: A world of credit crunch, de-leveraging and probably a reduction in liquidity – a deflationary world in the transatlantic economies

At the same time, we have at present an inflationary world in much of Asia, in the oil-producing countries and in other emerging markets.

The US Picture

Looking at the US, which still accounts for more than 25% of world GDP, what is remarkable and noteworthy is that there is still no recession. Post-NASDAQ and 9/11, the US benefited from the so-called 'Greenspan put' from ultra-cheap money, which is the background to the situation that we are now in.



The underlying situation in the US domestic economy, however, is not good. House prices have been falling but, compared with the rise in the post-9/11, cheap-money period, they are still well above the long-term trend. There is some sign of steadying in the new home construction market, but house prices generally still seem to be falling. Most importantly, consumer spending is now in quite a sharp period of decline. This means that the crisis may well move on from a mortgage-related loan contraction based on a rising default rate to other asset classes.

Against that, a more optimistic point is that US companies are at present in a strong cash position. Generally speaking, while US households are heavily in debt, US companies are not. If you compare the current position in the US with the position that Japan had in the early 1990s, when it had its financial crash, the corporate position in the US looks stronger than the Japanese corporate position looked like at the time. As we know, US public borrowing is going to increase but we do not know what it is going to do to the overall budget deficit, nor to the ultimate size of US debt.

The first piece of good news, comparing the US and its policy reaction to the Japanese financial crisis in the 1990s, is that it has been more vigorous in terms of the reaction of public policy outside the central bank than was the case in Japan. It took Japan seven to eight years before bank nationalisations and recapitalisation and a strong use of public money directly in the financial system really came in to try to put a floor under the collapse of the financial system. In the US, we are only 12 to 13 months into the crisis and, already, a big rescue has been mounted.

The second piece of good news is that, while this rescue will, of course, have consequences, it would be a mistake to think that the US cannot afford it. There is scope to borrow and the US budget deficit, which will increase, is only 3% of US GDP, which is a smaller budget deficit as a proportion of GDP

than in the UK.

There is, then, room for this package. It will add to public debt and, therefore, raise questions about the dollar and about possible inflationary consequences of this increase in public debt. Let us not forget that this would just take us back to the end of the 1980s, when the dollar, as a share of global foreign exchange reserves, fell to 50%. It is well over 60% now but may well decline, but that does not mean that the dollar, as the world's principle reserve currency, is any way finished. Second, the inflationary consequences that people speculate about from this public debt expansion in the US are based on the theory that, if you have such a big debt, you will have a big incentive to reflate in order to try to erode the value of that debt. What we saw in Japan in the 1990s is that deflation did not arrive immediately but, eventually, it was a consequence of the credit contraction process. I think that, at least in the next few years, the force of deflation in the US really is going to be quite considerable, such that I would not be betting on inflationary pressure from the US.

Commodities

Inflationary pressure from commodity prices has been a large part of the explanation for why US inflation is at 4-5% today, why the European Central Bank and the Bank of England have been constrained in their cutting of interest rates, and why inflation has taken a strong hold in Asia.



My first view on commodity prices is that, taking a medium-to-long-term view, it is a mistake to bet against the trend, which over the last 150 years has been for a consistent reduction in overall commodity prices. The trend that we have seen in the last six years has been a discontinuity, so the question is whether or not that is a long-term breaking of the trend or a short-term discontinuity. We are already seeing a substantial adjustment in the oil price, but it remains considerably higher than it was five to six years ago, and the same phenomena have been seen in metals and food.

I would say that, in general, looking at these commodity markets – and I would not presume to make any observations about precious metals – we can have no doubt in this economic climate that there is going to be a

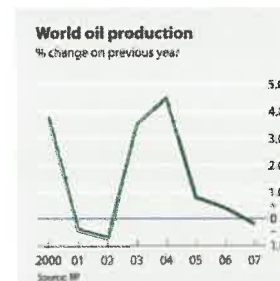
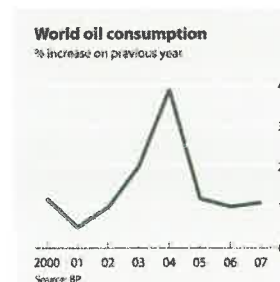
reduction in demand – and it is already here.

The question is how bad and prolonged that reduction will be, but also how fast the supply reaction is to the previous period of high prices, in which particular categories of the commodity class, and what the balance between supply and demand will be. While all the evidence from previous cycles is that the supply process is slow and suffers from cost inflation, the overall picture seems to be one of considerable investment in increased supply in many areas of commodities and in very finely balanced markets this seems to me to be quite bearish.

Oil

Many people think that oil demand has been galloping ahead. Last year, the rise in oil consumption was at the spectacular level of 1%, which produced a 100% rise in oil prices. That was because of the combination of liquidity and a tiny reduction in oil production. Oil production is, of course, a heavily politicised and cartelised affair, but we see, I would suggest, quite strong evidence that supply is at least capable of increasing:

- Saudi Arabia is bringing on stream new capacity in the next 12 months.
- Russia has just changed its export tax regime such that it is likely to encourage oil production.
- Iraq, with the world's third largest oil reserves, is at last producing more than before the invasion.
- Other new oil producers, such as Angola, are increasing their production as much as they can.



As the world economy moves into a sharp slowdown, with a recession in the transatlantic economies, the political question will be whether the Organisation of the Petroleum Exporting Countries (OPEC), particularly under the leadership of Saudi Arabia, which

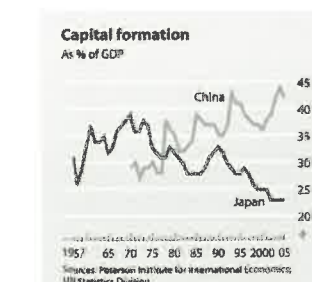
has spare capacity, will really seek to maintain high oil prices – i.e. in excess of \$100 – which have a clearly contractionary effect on the oil-consuming countries. If I am right that the US moves into quite a deep recession in the next 12 months, the Saudi response to that will be to seek to maintain supplies and to push down the oil price in order to assist the adjustment process in the US economy. I cannot, of course, guarantee that that is true, but had we had a poll on oil prices and had we been given a range between \$30 and \$200, I would have been towards the bottom of that range – i.e. at the \$50 mark, rather than at the famous Goldman Sachs prediction of \$200.

China

Countries that have really been a big part of the explanation for rising commodity demand – China, India and elsewhere – are characterised by their abundance of capital. China in particular has been exhibiting quite a strong period of inflation. Strong emerging markets are those that have high savings rates and that are financing themselves from domestic resources.

China is, of course, the epitome of that strong developing country model. However, the capital surplus in China has facilitated inflation, in combination with some structural changes, particularly in demography, which is reducing the supply of cheap, young rural workers; and some policy changes, which have sought to increase incomes in rural areas and to strengthen the rights of workers under a new labour law. These have combined to put some wage cost pressure on China. China's consumer price index has been adjusting downwards to 5% from its peak of about 8%, but producer prices remain a concern for the authorities.

Looking at it in a longer-term framework, while China may well slow down this year in response to measures seeking to reduce inflation but also in response to a decline in exports to Europe and the US, the longer-term question concerns investment and the way in which the Chinese economy has been led, not by exports, but by investment. In that regard, China has been just like Japan, South Korea and Taiwan before it, being driven by a very high level of investment as a share of GDP.



China now looks to me, in a general sense, to be quiet similar to the state that Japan was in as it entered the 1970s. Japan's level of investment as a share of GDP peaked at 40% in 1970. Japan was the most polluting country in the industrial world at that point, with Minamata disease from mercury poisoning, with smog, with dirty water, with the consequences of a rapid growth in heavy industry that had taken place in the 1960s, and with public protests against environmental pollution increasing. It had a cheap currency, fixed under Bretton Woods, and cheap capital. However, thanks to the oil price hike of the early 1970s, it then suddenly had 25% inflation. What Japan did was to move sharply upmarket, to introduce tight environmental controls, to revalue its currency and, as a result of that, to move from being the most polluting industrial economy in 1970 to being one of the cleanest only 10 years later and a country that moved from the era of the steel mill and the shipyard to the era of the microchip and the compact car.

I would suggest that China, looking at least on a five-to-10-year horizon, is going to try to follow something of the same type of trajectory as Japan did. China is going to have slower growth in the near term – from 12% to 9% – but also, I would suggest, a gradual revaluation of the currency in order to improve and increase control over inflation, and quite a strong effort to increase environmental and regulatory enforcement, because of issues such as the current baby milk scandal and growing public protests about pollution. I would also suggest that, 10 years' from now, China may well have shifted sharply upmarket and become much cleaner and, therefore, may well have followed something similar to the path taken by Japan in the 1970s.

India

India also has an inflation problem; in fact, a problem that is more acute in many ways than China, with inflation on a wholesale-price basis of over 12%. As a result of that, it has had a sharper tightening of monetary policy in recent months, although it still has negative real interest rates if you take the inflation measure seriously. India's slowdown is, therefore, in the immediate term, likely to be more pronounced. Forecasts of 7.5% for growth this year probably leads towards even

more of a slowdown next year.

However, India is looking like an East Asian country at last, with investment, which had been disappointing in the 1990s, surging to 35% of GDP in the last five years, increasingly financed by domestic resources. India is 15 years behind China. It is a country that has the sort of severe weaknesses of infrastructure that China had in the early 1990s. However, thanks to this investment boom, India is beginning to improve that infrastructure and to roll out quite a strong period of infrastructure investment. That process will be slowed down by the credit crisis because India does require borrowing from abroad, unlike China. It will also be held back by the slowdown in India's domestic growth.

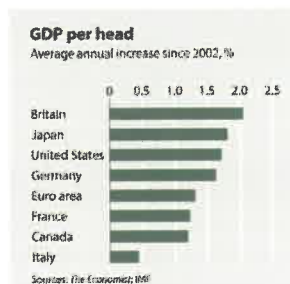
Nevertheless, I suggest that a good bet for India over the next 10 years is that it will follow a path similar, in some ways, to China's in the 1990s, with growth being led by a continued effort to roll out infrastructure investment and by an increasing emphasis on and success from manufacturing. Currently, manufacturing accounts for only 25% of India's GDP versus more than 50% in China, but it is growing faster than services. The new symbol of India's potential should, I think, be the Tata Nano car, the world's cheapest car, now rolling off production lines, despite protests from farmers about land seizures.

Japan

Japan had a lost decade in the 1990s, in the sense that growth was far below the potential that we had believed possible from the 1980s, and that the financial crisis of the late 1990s led to deflation. There has, however, been a strong recovery since 2002, since which time Japanese growth has been quite healthy, up to the last six months. Thanks in part to oil and food prices, inflation has returned to Japan. What Japan has seen, however, is a weakness in domestic demand, due to the dominance in job creation of part-time rather than full-time jobs, which is important because wages and benefits for part-time jobs, under new labour laws introduced in the early part of this decade, are much lower. Japan has, then, seen one of the biggest increases in inequality among rich countries and has been the only country in the OECD that, over the last 15 years, has had an increase in the level of absolute poverty.

Japan now needs stronger domestic demand but there is no sign of it coming, and it has a vulnerability to a reduction in exports to the US and Europe. It is also characterised by political stalemate: by a lack of effective government response to the economic situation, because the Japanese political system is in a period of transition, with, for the first time in post-war Japanese history, the opposition party having a very strong position in parliament, thanks to elections in the Upper

House in 2007, but that position in parliament is a destructive position rather than a government position. We will probably see an election in the Lower House during the next two months and I would suggest that the most bullish outcome from that would be a victory for the opposition party, because it would mean that the same party had a majority in both houses and was capable of carrying through reforms and effectively implementing government policy in a way that the current government does not have a chance to.



Japan's weakness is shown by the way in which wages have not responded strongly to rising growth and, therefore, not supported growth in domestic consumption to replace exports. Nevertheless, let us put Japan in context. Looking at it on the basis of per capita GDP, Japan has seen the second fastest growth in living standards in the last five years among the major OECD countries. The UK's performance is certainly now going to worsen. Japan should, therefore, not be counted out as far as growth and a recovery from the current situation is concerned.

Closing Comments

As Japanese delegates at this conference know, three years ago I published an article in *The Economist* and a book on the Japanese market in 2006 called *Hiwa Mata Noboru* (The Sun Also Rises), and I believe that that is the potential for the Japanese economy. A proper government and a resumption of reform will lead, I would suggest, to a rise in investment and productivity growth, followed by stronger growth for the Japanese economy. It is nice, at this point in the world economy and financial markets, to end at least on an optimistic note: the sun does also rise.

Thank you. ■

Bill Emmott is an independent writer, speaker and consultant on international affairs. From 1993 until 2006 he was editor of *The Economist*, the world's leading weekly on international current affairs. He has published eight books, contributed articles to many publications and given countless talks and lectures. His latest book, *Rivals*, is about the rising economic and political power of Asia.

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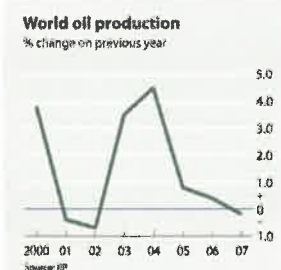
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LBMA/LPPM Precious Metals Conference

By Ruth Crowell, LBMA Conference Organiser

This year's LBMA/LPPM Precious Metals Conference, the first to be held jointly with the LPPM, took place in Kyoto, home to 17 UNESCO World Heritage Sites. The Conference attracted a record attendance of 442 delegates from over 37 countries, in large part due to its location in Japan and the active involvement of the LPPM. But for the worsening financial crisis in the weeks before the Conference, attendance would have been even higher. This may have been a disappointment in some ways

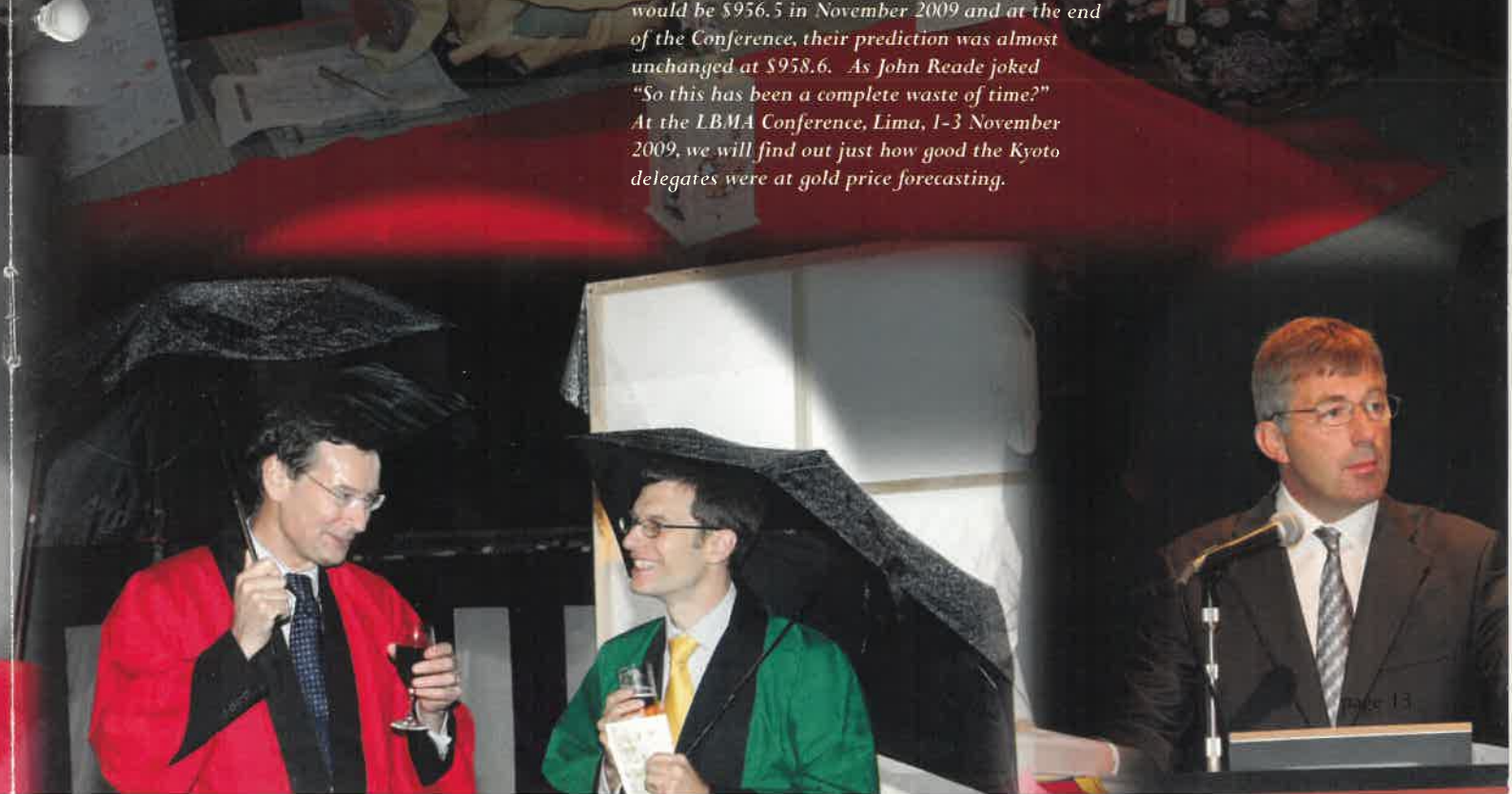
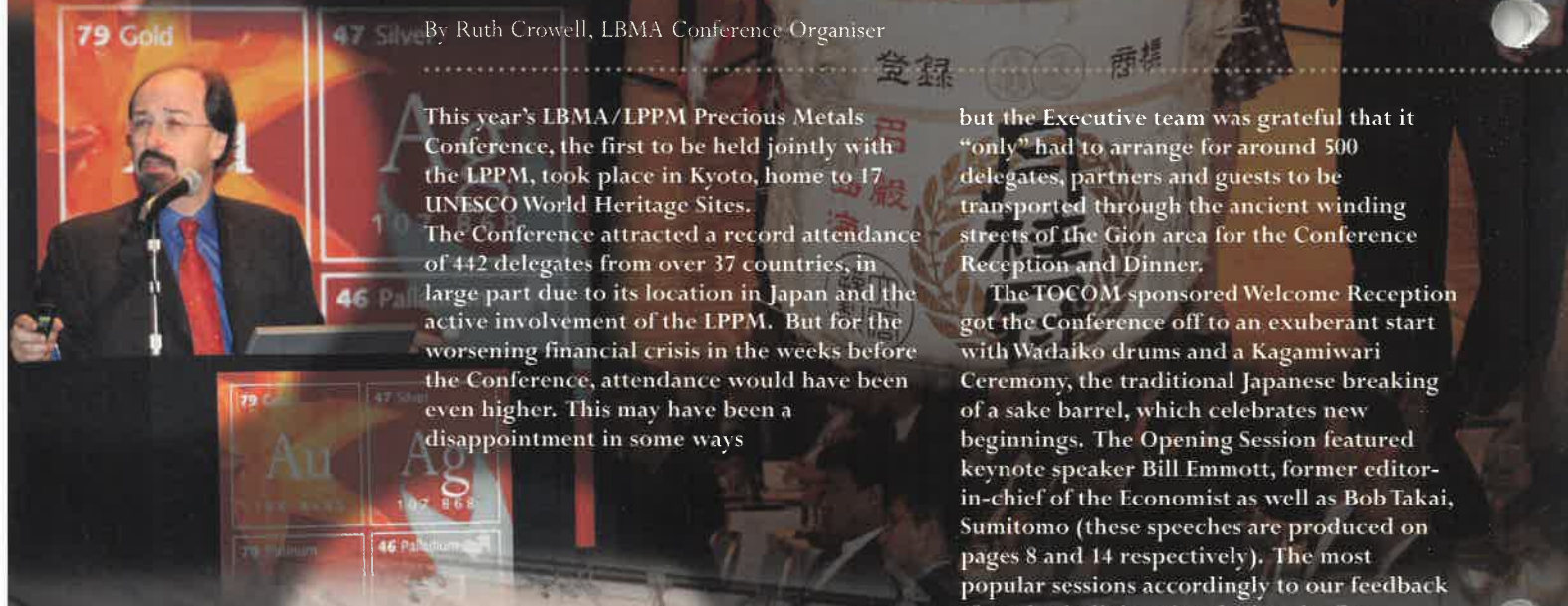
but the Executive team was grateful that it "only" had to arrange for around 500 delegates, partners and guests to be transported through the ancient winding streets of the Gion area for the Conference Reception and Dinner.

The TOCOM-sponsored Welcome Reception got the Conference off to an exuberant start with Wadaiko drums and a Kagamiwari Ceremony, the traditional Japanese breaking of a sake barrel, which celebrates new beginnings. The Opening Session featured keynote speaker Bill Emmott, former editor-in-chief of the Economist as well as Bob Takai, Sumitomo (these speeches are produced on pages 8 and 14 respectively). The most popular sessions accordingly to our feedback (from both digi-voting during the final session and feedback forms) were the Opening and Closing Sessions, PGMs in South Africa, Key Developments in PGMs and The Impact of High Prices. The Closing Session also contained the most popular speaker, John Reade of UBS, who gave a lively summary of the Conference. The next most popular speakers were Bill Emmott, Bob Takai and Tim Gardiner. Our congratulations to them all.

Light rain threatened to force the Conference to remain at the Okura Hotel for the Cocktail Reception prior to the Conference Dinner on Monday night. But based on a poll of delegates via their digi-voting handsets, a small majority ruled to head to the Gion district, each equipped with an LBMA umbrella and happi coat. Delegates toured the zen gardens at Kodaiji Temple and were entertained by maikos (young geishas) and a Tayu parade (featuring one of the most high-ranking geishas in Kyoto). The Cocktail Reception was sponsored by the Japan Gold Metal Association. The "Evening in Gion" gave delegates an insight into life in one of the traditional entertainment districts of Kyoto.

Delegates were asked using their digi-voting handsets to predict what the precious metals prices would be at the date of the next Conference. At the November 2007 LBMA Conference in Mumbai, delegates had predicted the gold price would be \$843.70, a rise of more than \$40 from the then ruling price of \$799.50. This turned out to be \$53.3 dollars off from the actual price of \$897.00. So the Mumbai delegates were bullish but not quite bullish enough.

Delegates are asked to predict prices at the beginning and end of the Conference in order to see if the speakers and debates have influenced delegates' views. At the beginning of the Kyoto Conference, delegates predicted that the gold price would be \$956.5 in November 2009 and at the end of the Conference, their prediction was almost unchanged at \$958.6. As John Reade joked "So this has been a complete waste of time?" At the LBMA Conference, Lima, 1-3 November 2009, we will find out just how good the Kyoto delegates were at gold price forecasting.



Overview of the Japanese Market

By Bob Takai, Executive Officer and General Manager, Financial Services Division, Sumitomo Corporation



The following is an edited version of a speech made at the LBMA/LPPM Precious Metals Conference in Kyoto on 29th September, 2008

Preamble

It is my real pleasure to speak on this very special occasion in the ancient city of Kyoto, just 25 miles east of Osaka where I was born and raised. The history of the bullion industry in Japan goes back hundreds of years, and the Sumitomos have had a lot to do with it. Soga Riemon, the brother-in-law of Masatomo Sumitomo, the founder of the Sumitomo family, succeeded in extracting bullion from copper with the western refining technology called nanban-buki in the late 16th century. Until Riemon's invention, a large amount of bullion was exported overseas at the price of copper. His son Tomomochi married Masatomo's daughter and moved to Osaka to commercialise his father's technology, making Osaka the centre of copper refining. The family entered the mining business in the late 17th century with the Besshi copper mine in Shikoku which was run by Sumitomo Metal Mining until 1974.

Lifting of Foreign Trade Restrictions

Historically, the Japanese bullion industry has always been under government control, and foreign trade restrictions were completely

lifted only about 30 years ago. One can say that the industry really developed in its present form in the late 1970s. I graduated from university and joined Sumitomo Corporation just a few years after in 1980. In January of that year, Sumitomo was the first trading house to set up a bullion department and I was the first graduate to be assigned to this department.

A Modern History of the Precious Metals Market in Japan: the 1970s

My career in Sumitomo overlaps the modern history of the precious metals market in Japan, so I thought I should tell you the story of the last three decades, based on what I have witnessed in this very exciting period, in order for you to understand where we stand at present. My first job in the company was as a junior PGM trader, buying from overseas producers and selling to Japanese clients. The job was not as tough as it is now, because platinum and palladium prices did not move throughout the day in Japan from the previous New York close.

There was also a price called the producer price, which was fixed, no matter how the free market price moved. Annual import contracts from South African producers were partially priced on these favourable terms in the 1970s and early 1980s. To give you an example, the producer price of platinum in the late 1980s was \$475 an ounce, when the loco Zürich price was about \$700. The contractual buyers were enjoying a discount of over \$200 an ounce to the international price. The South African producers were very generous with important clients such as auto manufacturers and jewellers in order to foster the PGM-consuming industry. Therefore, the Japanese PGM industry owes a lot to them.



After the international gold trade was liberalised, other trading houses and metals merchants also entered the market. The most popular type of business was the gold consignment business with Swiss banks and London bullion houses. Since price hedging through the futures exchange was not well-known at the time, it was risky to own inventory, as the market went up and down overnight. The most convenient way to avoid price risk was to get consignment stock from the bullion banks. In those days, the Asian bullion trading centre was Hong Kong. Swiss banks and the London bullion houses had offices there to do arbitrage business between the loco London market and the local tael market, called the Chinese Gold and Silver Exchange Society.

The bullion market in 1979-80 was extremely volatile, due to the geopolitical risks in Iran and Afghanistan, as well as inflationary pressure from the rising oil price. The gold price rose more than threefold, from \$230 to \$850 an ounce, in the space of 12 months from January 1979. There was also very heavy buying in the silver market by a couple of speculators from Texas, the Hunt brothers. The price of silver was simply unbelievable, exploding to \$50 an ounce from only \$6 – an eightfold rise in one year. Just a few days after reaching \$50, the price of silver plunged to \$34 and then to \$10, collapsing by 80% in the space of only 40 trading days.

The 1980s – The Decade of Market Emergence

People are now talking loudly about the oil price having doubled from \$70 to \$140 per barrel in the 12 months after the sub-prime loan crisis started, but the bullion market actually went through a much more violent swing some 28 years ago. 1982 was called The

First Gold Boom in Japan. The retail sale of gold bars and coins was permitted in high street banks, which were expecting heavy buying from hungry investors. Huge amounts of gold consignment stock were brought in from Zürich and London. However, the actual sales turnover was very disappointing. This made all those gold consignment stocks dormant for a long time.

The consignors – the Swiss banks and the London bullion houses – strongly urged their consignees to buy the stock as soon as possible; otherwise, they would charge carrying costs. This triggered the creation of the loco Tokyo inter-dealer market in order to facilitate the turnover of dormant consignment stocks. Until about 1982, the Japanese gold market was a one-way street, where importers bought gold from foreign bullion dealers to sell to domestic customers. In the newly created loco Tokyo market, the dealers started to trade with each other by mutually quoting bid and offer two-way prices. Gold started to change hands among international professional dealers for the first time in history. The original members were four companies, which committed to quote two-way prices:

- Tanaka KK
- Mitsubishi Metals
- Rothschild Hong Kong
- Sumitomo Corporation.

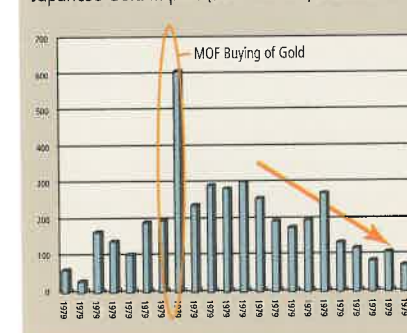
In March 1982, just about the time that the inter-dealer loco Tokyo market was born, futures trading of gold also started on the Tokyo Gold Futures Exchange, the forerunner of TOCOM. The Japanese retail gold market in the early 1980s was not as organised as it is now. There were many fraudulent gold retailers all over Japan making a living by cheating innocent retail investors, which became a big social problem.

METI, the regulator, urged the government to establish an official public futures exchange in gold in order to crack down on the black market. In January 1984, the Tokyo Gold Futures Exchange was merged with the Textile and Rubber Futures Exchanges to become TOCOM. It also listed silver and platinum futures contracts in the same year. Thanks to the formation of the precious metals futures exchange here, Japanese traders no longer needed to rely on consignment stock from foreign banks, so they could run a much more sophisticated trading business during Tokyo time.

In the mid to late 1980s, there were more bullion dealers than ever in the Asian markets. If I may quote from the report I wrote in 1987 about the Asian gold market, there were 13 dealers in Japanese quoting loco Tokyo gold, plus about 30 dealers quoting loco London gold prices, either directly or through brokers: 17 in Hong Kong, eight in Singapore, three in Sydney and two in Tokyo.

Another memorable event in 1985-86 was the emergence of a mysterious big gold buyer. The buyer turned out to be the Japanese Ministry of Finance, which needed to buy

Japanese Gold Import (Source: MOF, Sumitomo Corp.)



physical gold for the minting of coins to commemorate the 60th anniversary of Emperor Hirohito. Japan imported 610 tonnes of gold in 1986, a record gold import in our history. The import market has really shrunk over the last 20 years and last year Japan imported only 12 tonnes.

The 1990s: The Decade of Market Growth

The 1980s can be called the decade of market emergence, whereas the 1990s was the decade of market growth. From the price point of view, the 1980s was a volatile and generally weak decade, trading in a range of \$560, between \$850 and \$280. The 1990s were more or less sideline trading, between \$400 and \$250, a range of \$150 an ounce.

Another feature of the 1990s was the start of TOCOM screen-trading in 1991, the first electronic trading platform in the world. The electronic trading boosted the trading volume on the TOCOM precious metals market from 10 million contracts a year to 35 million in 2000 and over 40 million in 2003. The success of electronic trading gave birth to day trading, or screen-jobbing. The new trading strategy has greatly enhanced the liquidity of the Exchange. On the other hand, the arbitrage against the loco London market has become less popular, because the cost of screen-jobbing is much less than the trading arbitrage. Because of the lower volatility of gold and the prevalence of screen trading, dealers began to trade larger amounts during the day. Gold dealers in the 1980s traded in clips of 4,000 ounces, or 10 bars, whereas dealers in the 1990s traded clips of 10,000 ounces in the inter-bank dealer market.

Another feature of the Japanese market in the 1990s was the growth of the PGM market. Platinum demand grew steadily from the late 1980s, reaching a record high of 70 tonnes per annum in 1996. The main drivers of rising demand in the 1990s were jewellery and

investment, which might have been helped by a stable price of about \$400 an ounce throughout the decade. Demand has since diminished as prices increased.

The 1990s gave birth to a couple of unique gold investment products seen only in Japan:

One is the Kinteiki savings scheme, whereby the gold cash and carry structure was utilised to generate interest profit for savers. This market grew to ¥5 trillion, or \$45 billion, at its peak.

The other is the GAP, whereby investors constantly buy gold with a fixed amount of funds every month in order to make an average buying price that, hopefully, is cheaper over the years. The GAP has been well-accepted by Japanese gold investors and has certainly contributed to the expansion of the physical gold investment market in this country.

The 2000s:

The 2000s so far is the decade of unprecedented commodity price advances:

- Crude oil from \$20 to \$147 a barrel, a sevenfold increase.
- Gold from \$250 to \$1,030 an ounce, a fourfold increase.
- Platinum from \$350 to \$2,270, a sixfold increase.
- Commodities such as grains, base metals, natural gas, coal and iron ore have all substantially increased in value during the decade.

Of all commodities, palladium had its boom and bust much earlier than the others. Due to the suspension of exports from Russia, the price of the metal jumped from \$400 to \$1,100 in 2000, and collapsed to \$250 by the end of 2002, when all other commodities just began to increase. TOCOM was the biggest casualty of, as well as the cause of, the big swing in the price. In February 2000, Japanese investors and futures brokers were caught heavily short and could not close out their position, due to the consecutive limit ups. TOCOM and METI, very concerned about possible defaults by several member firms, took the unprecedented emergency measure of freezing the price of the contract on 23 February. The Exchange hence avoided the worst scenario of major defaults but lost its credibility among the international trading community. Consequently, the palladium contract was dead for years after.

The palladium fiasco triggered a series of exchange reforms led by METI:

- TOCOM became the first Japanese commodity exchange to introduce its own central clearing system, in 2003. This newly created mechanism made all members immune from counterparty risk in the event

of another member's default.

● METI took the initiative to amend the Commodity Futures Exchange Law in 2005 to set up the Japan Commodity Clearing House (JCCH), a central clearing house for all commodity futures contracts traded across the country.

● METI also acted to strengthen the commodity futures broker industry, which was fragmented into a large number of small companies without the capital to take their own market risk. Some of these firms were making a living from high-pressure sales targeting individual clients. METI wanted to raise the compliance standard of those commodity brokers to that of the securities industry, so it forbade cold-calling to solicit futures orders from individual clients. METI also introduced a capital adequacy requirement, so that brokers did not take too much risk on their own proprietary trading books.

These measures worked well to reduce the problems such as complaints from small investors but, as a side effect, the trading volume on the Exchange began to fall from 2004. As trading by individual investors and the brokers' prop trading fell substantially, the Exchange and brokers had no choice but to increase their business from western banks and traders, corporate hedgers like oil companies, institutional investors, fund managers and prop houses in overseas locations.

● In June last year, METI again moved proactively by setting up an expert committee to discuss another round of reform of the Exchange. The Committee has proposed to the Ministry to demutualise the Exchange from a membership organisation to a joint stock company, and to go public in a few years' time.

● It also proposed the introduction of a new trading system to enable high frequency traders to participate and for trading to be extended to 24 hours. The Committee has discussed expanding the daily price limits and futures position limits and introducing volume discounts on exchange fees to encourage professional hedgers and traders to do more business.

● In terms of individual clients, the introduction of mini contracts was considered. A mini gold contract has already been implemented, and a mini platinum contract will start very shortly.

● The Committee proposed that a commodity ETF should be promoted and that a more proactive relationship between commodity futures exchanges and stock exchanges should be encouraged. Gold ETFs have been listed on the Osaka and Tokyo Stock Exchange, the two largest stock exchanges in Japan.

● The demutualisation of TOCOM will be implemented in December this year and the new trading system, with a latency of 10 milliseconds, will be operational from May next year. The new system, which is said to be about 50 times faster than the current one, will be able to accommodate liquidity providers with algorithmic trading strategies.

● The extension of trading hours has already started on a step-by-step basis. The closing time of TOCOM was extended in January this year from 3.30pm to 5.30pm. Further extensions will be made after the new system is introduced.

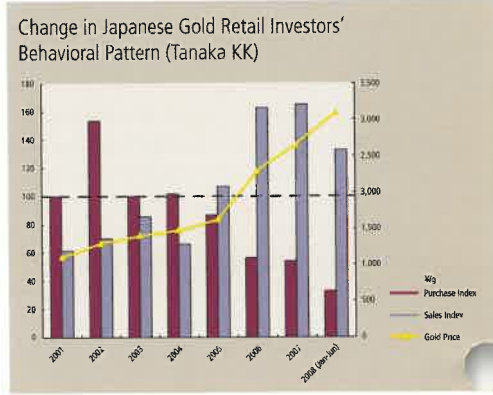
Japan: Now a Net Exporter of Gold to the World Market

As I have mainly discussed market developments from the Exchange viewpoint, I would also like to shed some light on the physical side of the market. As I said earlier, the 1980s was the decade of market emergence and the 1990s the decade of growth. I would characterise the 2000s as the decade of maturity, particularly from the physical market point of view. Japanese gold imports peaked at 610 tonnes in 1986, then declined year-on-year in the 1990s from 300 to 100 tonnes and in the 2000s to only 10-20 tonnes. In fact, exports have risen, even as imports have declined, making Japan a net exporter of gold to the world market. This shows that the Japanese have been buying gold bars, coins and jewellery over the last 30 years, and the accumulated above-ground stock has now reached the point of saturation and started to spill over. Data from Tanaka KK shows the indexed retail sales and purchases of gold bars since 2001. Retail sales and purchases clearly reversed from 2005 and the gap widened as the yen price of gold rose to ¥3,000 per gram. However, this trend seems to be changing again; in other words, their sales last month were now greater than their purchases, according to Ikeda-san of Tanaka KK, who I spoke to yesterday.

Closing Comments

In the 13th century, an Italian traveller from Venice called Marco Polo made a long journey from Europe to China. Although he never visited Japan, he heard many rumours about this country and later on wrote a book. He described this country as Cipangu, meaning 'the country full of gold'. In fact, Cipangu, or Japan, as it is called now, was not a big producer of gold back in the 13th century. After all these years, Japan has really become Cipangu, as Mr Polo visualised some 700 years ago.

Where does the Japanese market go from here? I cannot think of Japan without China in the coming decade. The Chinese financial and commodities markets will surely be deregulated, and Shanghai, only a three-hour



flight from Tokyo and with a time difference of one hour, will most likely become the centre of commodity futures trading in that country. With the emergence of the mainland Chinese market, together with already-mature centres such as Hong Kong, Singapore and Sydney, the Asian precious metals market will probably grow substantially from both the physical and derivatives perspective. Indeed, the Asian marketplace may eventually overtake the western trading centres in terms of liquidity and commercial activities.

Japan, the most mature market of all, will play a key role in the development of this growing market for the next decade. In order for this to happen, we need a flexible regulatory framework, proactive thinking around the management of the Exchange and, most importantly, strong commitment from the players in the physical and futures markets. Without those, Japan will return to where it was before Marco Polo discovered its value.

Thank you very much. ■

Bob Takai Executive Officer, General Manager Sumitomo Corporation. Bob graduated from Kobe University. He has spent his entire career of 28 years in Sumitomo Corporation, being involved in commodity and financial trading in Tokyo and in London, where he also served as a member of the Management Committee of LBMA. He is now responsible for all the financial business of the company including private equity investment, asset management and aircraft leasing. He is a board member of TOCOM, as well as a member of the Commodity Futures Exchange Committee of METI.

LBMA Certified Reference Materials Project – An Update

By Stewart Murray, Chief Executive, LBMA

Good progress has been made with the manufacture of reference materials in gold and silver at Tanaka (Japan) and Krastsvetmet (Russia) respectively.

As explained in previous editions of the Alchemist, these reference materials are intended for use in laboratories for validating the calibration of their spectrographic testing equipment. For each metal, the Reference Materials will consist of a set of two rectangular blocks, RM1 and RM2, containing relatively low (generally around 10 ppm) and relatively high (generally around 30 ppm) contents of approximately 20 elements (see tables). Note that the concentrations are indicative only. The different ways in which the elements are specified in the tables reflect the different agreements with the two manufacturers.

The project has now reached a critical stage – the testing of the materials for homogeneity. For each metal, the two ingots have been cast using the master alloys that were previously prepared. Following casting into the form of a thick slab using a graphite mould inside a vacuum furnace, the ingots were cropped to remove those parts where segregation of the impurity elements was most likely to have occurred. They were then rolled to the final thickness of 6 and 7mm in the case of gold and silver respectively. The plates were then guillotined into squares each representing a single unit of the reference materials. At this point, 15 units were selected using a semi-randomised pattern. The levels of the impurity elements in each of these units are currently being analysed by spectrographic methods in order to provide the data for the homogeneity test. Some of these units have been machined to remove either a quarter or a half of the thickness. This is for two reasons. Firstly, it allows the spectrographic analysis to be carried out in the regions corresponding to the middle and one quarter way through the thickness of the original ingot. Secondly, the machining also

produces shavings which will subsequently be used to determine accurate measures of the contents of all the impurity elements.

Homogeneity is the key to the success of this project. It is also not easy to attain. Just as nature abhors a vacuum, it also abhors homogeneity. This is particularly true in metallurgical systems where during the solidification process, segregation of the impurity elements can take place ahead of the freezing front. The parameters of the melting and casting operations were of course chosen to minimise the risk of such segregation but in order to prove that the materials are homogeneous, careful analysis of the impurity levels in the 15 selected units must be carried out by the manufacturers. Curiously, it is not so important that this analysis is accurate but rather that the determinations must have a high precision. In other words repeatability of the analytical method used must be very high so that if an element is distributed homogeneously, the resulting analyses from all the units should be in essence identical. These measurements will then be examined using a special software package for the analysis of variances (ANOVA) which will indicate objectively if the distribution of the elements is truly homogeneous. This analysis will be carried out by the Chairman of the Project Steering Committee, Dr. Mike Hinds of the Royal Canadian Mint, and the results will then be reviewed by members of the Project Steering Committee. If the materials pass this test, the project will move to the penultimate phase – the analysis of the shavings by a group of laboratories in LBMA Good Delivery refiners which have agreed to participate in this stage. The shavings will only be sent to these laboratories once the homogeneity of the overall materials has been established. By averaging the determinations which each of them make for the impurity levels in the shavings, it will be possible to produce a highly accurate mean for each element.

Because different elements show different tendencies to segregate, it is possible that the reference materials may be homogenous for some but not all of the impurity elements. Should this prove to be the case, the Steering Committee will have to decide whether to proceed to the final stage of the project. The Steering Committee might then either exclude these elements from the certification

Gold Reference Materials

Element	Au-RM1	Au-RM2
Ag	20±10	100±50
Al	10±5	30±15
As	12±6	40±20
Bi	30±15	10±5
Ca	10±5	30±15
Cr	10±5	30±15
Cu	10±5	30±15
Fe	10±5	30±15
Mg	30±15	10±5
Mn	10±5	30±15
Ni	10±5	30±15
Pb	10±5	30±15
Pd	10±5	30±15
Pt	10±5	30±15
Rh	10±5	30±15
Sb	30±15	10±5
Se	12±6	40±20
Si	10±5	30±15
Sn	10±5	30±15
Te	40±20	12±6
Ti	10±5	30±15
Zn	10±5	30±15

For gold, there will be a difference of at least 10 ppm between the concentrations in RM1 and RM2

Silver Reference Materials

Element	Ag-RM1	Ag-RM2
Al	5-10	20-40
As	20-40	5-10
Au	5-10	20-40
Bi	10	50
Cd	5-10	20-40
Cr	5-10	20-40
Cu	20	100
Fe	5-10	20-40
Mg	20-40	5-10
Mn	5-10	20-40
Ni	5-10	20-40
Pb	50	10
Pd	5-10	20-40
Pt	5-10	20-40
Rh	5-10	20-40
Sb	5-10	20-40
Se	20-40	5-10
Si	5-10	20-40
Sn	20-40	5-10
Te	5-10	20-40
Zn	20-40	5-10

which accompanies the materials or else indicate the degree by which they deviate from total homogeneity.

Orders

A number of LBMA Good Delivery refiners have already pre-ordered the reference materials and the target for final delivery of these materials is mid-2009. Companies (both Good Delivery refiners and others) which wish to purchase the materials may do so at the prices shown below. Invoicing for the materials which have already been ordered will take place in two phases. Once the materials are proved to be homogenous, purchasers will be invoiced for the manufacturing charge as already agreed with them. It is expected that this will take place in around February 2009. Once the materials have been finally prepared and packaged ready for shipment, purchasers will then be invoiced for the shipping cost and, in the case of the gold materials, the metal cost at the then ruling gold price.

Form and Pricing

The Reference Materials will consist of individually packaged units in the form of square blocks with the following approximate

Dimensions and Weights:

Gold: 21 x 21 x 6 mm 51 g each

Silver: 26 x 26 x 7 mm 50 g each

One set consists of two materials, RM1 and RM2 as described in the tables. It is not possible to purchase either RM1 or RM2 separately. For clarity, a complete set of gold and silver Reference Materials will consist of 4 units.

The following prices are the fixed costs in US\$ for one piece of approximately 50-51 grams. The fixed costs (excluding the value of the contained metal in the case of gold) are the same for the gold and silver materials. The prices shown exclude the cost of shipment and insurance.

The prices for the gold materials exclude the metal cost which will be calculated based on the weight of the block and the price of gold when the materials are ready for shipment.

VAT will be added as appropriate depending on the location of the purchaser.

Fixed price per unit

LBMA Good Delivery Refiners, Members and Associates: US\$1,875

Other purchasers: US\$2,250

Availability

The Reference Materials are expected to be available for shipment in mid-2009. ■

London Precious Metals Clearing Limited has announced that the cut-off time for its Members accepting client instructions for the transfer of gold and silver on Christmas Eve, Wednesday 24th December, 2008, and New Years Eve, Wednesday 31st December, 2008, will be 2-00 pm London time

Market Moves

Mark Ellis to Prebon Premex, Zurich

Mark Ellis has joined the precious metals department of Prebon Premex in Zurich, where he will be working with Gold and Silver as well as PGMs. Prior to joining Premex Mark worked at Comdaq Metals Ltd in London for 6 years as Assistant General Manager where he focused on all aspects of PGMs and at GFI Ltd in London where he set up Platinum Group Metal Trading.

David Longhurst to Standard Chartered, London

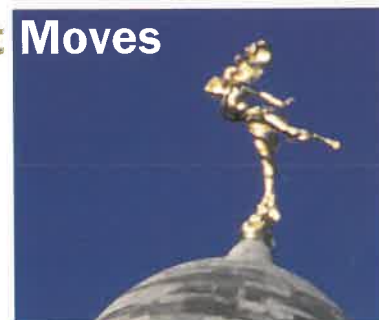
David has joined the metals trading desk at Standard Chartered Bank. He previously worked at Citibank.

Davide Collini to Merrill Lynch, London

Davide has joined the global metals marketing team at Merrill Lynch. He previously worked at JPMorgan in metals sales for five years.

Eddie Nagao to Sumitomo, Tokyo / Yoichi Kawato to Sumitomo, London

After spending 6 years and eleven months in London, Eddie Nagao of Sumitomo Corporation Global Commodities Ltd. ("SCGC") is returning to Tokyo. Eddie has been a member of LBMA's Membership Committee since July 2002 and he was also a member of LPPM's special purpose sub-committee for the first ever joint conference between LBMA and LPPM held in Kyoto in September 2008. Upon return, Eddie will be in charge of Energy Derivatives desk for Sumitomo Corporation. Yoichi Kawato, current head of Sumitomo's Energy Derivatives in Japan, is taking over Eddie as Managing Director of SCGC. Yoichi has started his career as precious metals trader of Sumitomo Corporation in 1991. Since then, Yoichi has traded in broad commodities and financial instruments across regions.



Andre Lewis to Fortis Bank

Andre Lewis has joined the precious metals trading desk at Fortis Bank, London. Before joining Fortis, Andre worked for Mitsui & Co Precious Metals Inc, where he was responsible for the London trading desk.

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LBMA News

By Stewart Murray, Chief Executive, LBMA

MEMBERSHIP

Members

Galmarley Ltd of the UK (trading as BullionVault.com) was admitted as a Full Member on 1st September, 2008.

CRI Criterion Catalyst of the UK was admitted as a Full Member with effect from 1st December, 2008.

Baird & Co. relocated to new premises in October, 2008: 20-21 Gemini Business Park, Hornet Way, London E6 7FF. Tel 020 7474 1000; Fax 020 7474 2991.

Associates

Italpreziosi SPA of Italy was admitted as an Associate with effect from 1st September, 2008.

Solar Applied Materials Technology Corporation of Taiwan was admitted as an Associate with effect from 1st December, 2008.

Hindustan Platinum of India was admitted as an Associate with effect from 1st December, 2008.

GOOD DELIVERY LIST

Gold

Asahi Pretec Corporation of Japan was added to the Gold List on 12th September, 2008.

COMMITTEES

Management

The Management Committee met in September and November to review the work and recommendations of the various sub-committees.

In reviewing the LBMA's work concerning REACH, the Committee noted the discussions within the REACH Sub-Committee about the possibility of developing an LBMA statement that large gold bars (London Good Delivery Bars) should be considered as articles because of their investment function and hence be outwith the scope of REACH. After having taken legal advice on this issue, the LBMA

has decided not to proceed with the development of such a statement. The LBMA still considers that Good Delivery bars are articles because of their function as investment items but the decision reflected the reality that at the end of their lives as a store of value, the bars may be used as a raw material for eg the jewellery industry, which would normally involve them being melted and alloyed.

The LBMA also considered the possibility of an approach to the EU Commission to request a legislative change that would allow gold to be excluded from REACH. But it was considered that this would have required a huge (and expensive) effort without any guarantee of a successful outcome.

In conclusion, the Management Committee felt it would be simpler to allow those Members which considered they needed to pre-register to do so with the certainty of them subsequently registering rather than having a period of doubt as to the types of gold and the tonnage bands that would have to be declared.

Following discussions with the British Bankers' Association, the Committee agreed that the BBA Libor data would no longer be shown on the LBMA website on a daily basis but instead with a 7-day delay.

The Committee approved a recommendation from the Membership Committee that annual subscriptions should be increased in 2009 as follows.

Market Makers from £10,000 to £12,000

Full (Ordinary) Members from £5,000 to £6,000

Associates from £2,000 to £2,500.

During the past decade there have been no changes in membership subscription levels which have

been held constant largely because of the increasing number of companies within the Membership.

Physical

The Physical Committee met three times between September and November. The Committee noted that a first edition of the Visual Guide to Good Delivery Bar Acceptability had been circulated at the Conference in Kyoto at the end of September. This Guide describes the defects that large gold and silver bars may contain and gives advice on when such defects are considered by the London vaults to render bars unacceptable. The first edition of the Guide focuses mostly on gold but future editions will be more comprehensive in terms of the coverage of defects found in silver bars. Copies of the Guide can be obtained free of charge from the LBMA Executive (which would also welcome feedback and suggestions for inclusion in future editions).

The Committee continues to assess the possibility of introducing electronic weighing for large gold bars. Plans have been made to test a radically new design of scale which it is hoped will provide sufficiently high accuracy and repeatability to allow it to be used in place of beam balances. The scale will be tested extensively in one of the vaults in the New Year.

The main work of the Physical Committee is the maintenance of the Good Delivery system. At present, more than ten gold and silver refiners have expressed a serious interest in obtaining Good Delivery accreditation. A new version of the Good Delivery Rules document was placed on the LBMA website in October. It includes an annex giving contact details for three companies which are able to facilitate applications for Good Delivery listing. Another annex shows the elements which LBMA Referees normally determine when

carrying out spectrographic analysis of gold and silver in connection with Good Delivery applications and proactive monitoring.

The LBMA met with the Good Delivery Referees in mid-October to review their operations in support of the Good Delivery system. The meeting agreed an increased scale of fees for the Referees' work (the first such increase since 2004). This will result in the costs for applications being increased. In addition, the annual maintenance fees for companies on the Good Delivery List will be increased at the same time. Further information is given in the article by Douglas Beadle on page 4. Details of the revised fees can also be found in a new version of the Good Delivery Rules on the website.

The Committee noted the progress with the Reference Materials Project (see the article on page 17) and it also discussed and approved the programme for the Assaying and Refining Seminar to be held in March 2009 (see page 4 for details).

Public Affairs

The PAC has met only once in the past quarter - immediately following the Conference in Kyoto. The Committee noted that the Conference had been a great success but that the costs had been much higher than anticipated. The Committee's recommendation that the 2009 Conference should be held in Lima, Peru in early November has been approved by the Management Committee. The announcement opposite provides further details.

The Committee discussed whether the quarterly Alchemist should become an electronic only publication and it was decided to ask Alchemist recipients for their views on this. This question and others are included in the questionnaire which accompanies this edition of the Alchemist. All

readers are asked to provide feedback to the Executive which will greatly assist in guiding the future work of the LBMA in this area.

The date for the next Annual Party for staff of Members and Associates has been set, namely 26th February, 2009. Further details will be circulated shortly.

Membership

The Membership Committee met in early November, its first meeting since May. The work of the Committee in reviewing and recommending applications for Membership is normally carried out by email correspondence. The November meeting was an opportunity to discuss some more general issues including the criteria that applicants for Membership have to satisfy in order to be accepted. The

Committee also noted the Associate reviews which are currently under way. These reviews are designed to ensure that Associates still enjoy the support of Member companies which originally sponsored their applications or, in cases where such companies may no longer be active, that new sponsorship from others is obtained.

The Committee considered a request that companies should be allowed a brief description of the sector of the market which they served on the LBMA's Membership list, including the one on the website. Its recommendation, subsequently approved by the Management Committee, was that those companies which served the retail sector should be listed on a special page on the website. The Committee agreed that improved guidance to possible applicants for membership should be shown on the LBMA website. The resulting FAQ pages can now be accessed at

lbma.org.uk/assocn/joiningfaq
Eddie Nagao who has served on the Membership Committee for the last 6 years will shortly be returning to Japan after more than 7 years in London. As a result there is a vacancy on the Committee for an experienced member of staff of an LBMA Member. Anyone interested in applying should send a brief statement of their market experience to stewart.murray@lbma.org.uk.

Finance

The Finance Committee held its normal autumn meeting to develop the budget for the coming year. The Committee noted that a substantial deficit had resulted in 2008 for a number of reasons, partly of a one-off nature, and recommended a number of corrective actions to bring the accounts back into balance in 2009. These included the recommendations made by the Physical and Membership Committees described above.

Biennial Dinner

On 20th November the LBMA held its eleventh Biennial Dinner – for the fourth time in a row in Goldsmiths Hall – which coincided with the 21st anniversary of the establishment of the Association. See the report on page 24.

OTC Guide

The LBMA has published a new version of the previous Guide to the London Bullion Market as a joint venture with the London Platinum and Palladium Market. The new edition, entitled "A Guide to the London Precious Metals Markets" covers gold and silver as well as platinum and palladium. The Guide can be downloaded from the website in pdf format and participants in the wholesale bullion markets can obtain free copies of the printed version from the Executive. Members and Associates can obtain a bulk supply of the Guides (minimum order of 20 copies) for £2 per copy. ■

The London Gold Market Fixing Limited has announced that there will be no afternoon gold fixings on Christmas Eve, Wednesday 24th December, 2008, nor New Year's Eve Wednesday 31st December, 2008.

DIARY OF EVENTS

JANUARY

20

Minesite Forum
London
T: +44 207 562 3381
www.minesite.com

FEBRUARY

9-12

Mining Indaba
Cape Town
T: +1 314 824 5515
F: +1 314 824 5597
www.iiconf.com

11-13

CIS Precious Metals Summit
Moscow
T: +44 20 7017 7342
F: +44 20 7017 7447
www.adamsmithconferences.com

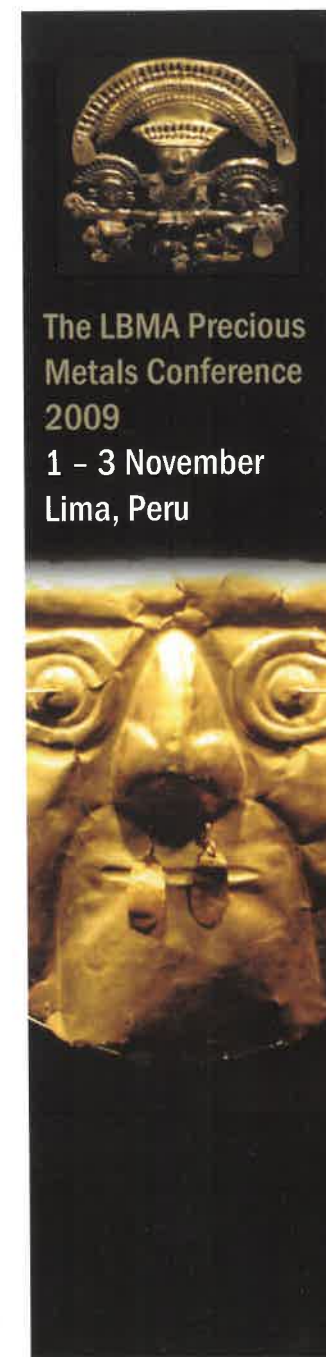
MARCH

23-25

Third LBMA Assaying and Refining Seminar
London
See details on page 4

23-27

Asian Mining Congress
Singapore
www.terrapin.com
T: +65 6322 2700
F: +65 6223 3554



Turmoil!! Meltdown!! The Worst Crisis Since 1929!!

Editorial Comment by Jeremy Charles, LBMA Chairman

These are the kind of headlines that we have seen far too often in our newspapers in recent months. Journalists and editors have seemed to be vying with each other to find the direst comparisons with troubled times from the past and to make the gloomiest predictions for the future.

And there are no doubt grounds for real worry and not just about the financial sector – where many LBMA members operate – but also about the wider economy. The financial gyrations and uncertainty we have been experiencing in the past year have given rise to unprecedented price movements in all markets. Violent swings, in both directions, have accompanied or followed the announcements by governments around the world of measure aimed at stabilising the situation. Unemployment rather than the spectre of inflation has suddenly become the problem. Retailers have had to take desperate measure to lure customers into their shops. Banks have found it difficult to lend to each other or to their customers. The commodities markets have seen prices going through the roof and subsequently, in some cases, collapsing even more dramatically.

Gold has not been immune from these dramatic developments. The desire to find a safe haven for their funds has often led investors to seek refuge in the gold market during previous crises, whether political or financial in nature. But this time round, the movement into gold has seemed to be on a larger scale than ever before. At various times, huge volumes of business have passed across

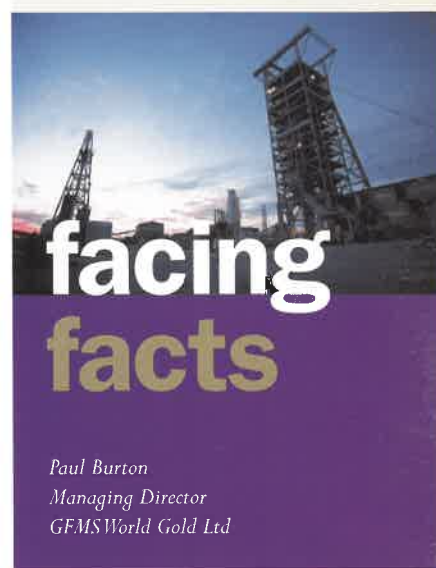


the dealing books of the members of the OTC bullion market in London as private banks, hedge funds ETF traders, central banks, producers and consumers all want instant access to the spot price of precious metals. These transactions, including, during any periods of price weakness, those of the physical buyers in

Asia, have created volatility that many in the market had never before experienced. The vaults in London have been working round the clock and sometimes seven days a week to cope with the flows of metal into or out of their vaults. Daily gold price moves have recently been be as high as \$150 an ounce and for traders and risk managers the current environment requires a cool head and nerves of steel.

This is where the London market comes in. The system of trading which has evolved in London over many decades has continued to serve the clients of the London bullion market throughout this testing period. The three legs of the London trading platform: the fixes, the clearing system and the Good Delivery List continue to provide a solid foundation that allows the market's many clients to trade safely and with minimal costs.

Looking ahead, no-one can predict with any confidence how matters will play out. But in an uncertain and stormy world, many investors will continue to rely on a golden anchor to prevent them from being driven onto the rocks. ■



Investing in the Gold Sector: Bullion or Barrick?

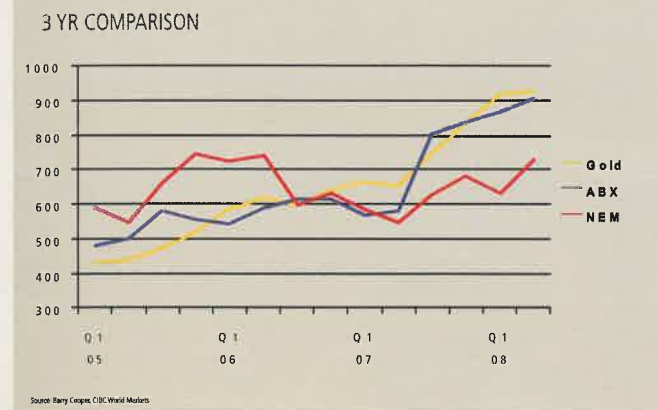
The gold sector sparked into life a few years ago when the gold price reversed a 20-year down trend to rise to historical highs. Such dramatic growth invariably attracts the attention of savvy investors and indeed we have witnessed investment demand in both gold and the companies that produce it. There is, however, continuing debate as to which is the 'best' investment vehicle – gold or gold stocks? Gold stocks are generally considered to be leveraged to the gold price based on the notion that a gold share is an option on a higher gold price.

The intention of this paper is to see if that theory holds.

The Nature of Gold Investments

It might be best to discuss briefly some of the investing mechanisms of the sector before we make any firm decisions on who outperforms who.

There are many opportunities that present themselves to an



investor looking to participate in the gold market. In terms of the metal he can choose from bullion bars, coins, jewellery, and less tangible gold assets such as ETFs and futures.

For those interested in investing in gold stocks there is a whole spectrum of choices ranging from large, multinational producers to small, two-men-and-a-dog explorers. There are literally hundreds of individual candidates and unique choices.

The investor can invest in any of these options directly or through a suitable fund, which is an indirect way of investing in the sector.

Factors Influencing Investment

There are three main factors that influence investment decisions – attitude to risk, ease of investing and exiting, and investment aim.

Risk Propensity

If an investor is relatively risk adverse he will look for the lowest risk gold product, which is the metal or the ETF for smaller investors. More risky are the major gold producers as clearly operational considerations come into play before the gold can be produced in a saleable form.

The next factor is ease of investing and exiting and the first question is 'how easy is it to make an investment?' For gold bullion it may be simple for a well-funded investment manager to just pick up the phone and speak to a bullion bank dealer. For a small, private investor it has not been so simple to invest in pure gold up until the introduction of the ETF product. And of course

that is exactly why the ETFs were created; to make it easier for smaller investors to get hold of gold.

For gold equities it is probably easier for the smaller investors. A simple matter of phoning a broker and putting in an order on one of the world's resource exchanges, such as TSX, TSXV, ASX, LSE, AIM and Amex. His biggest challenge is trying to decide which stock as there are so many to choose from and professional advice is not always available as brokers' research doesn't cover every gold stock.

For the institutions the procedure can be trickier. If they have a large amount of money to invest they are restricted to only those companies which have a large market capitalisation, as trying to buy smaller companies can result in them owning too much of one stock or having to invest in many stocks to spread the investment. This is why professional investors also look for a certain level of liquidity in a mining stock so that they can dispose of their holdings without too much market disturbance.

Note that I am assuming the investor to be one of the more traditional type who looks to go long in the market as opposed to the hedge funds who might be looking to short the market, thus acting in a more speculative manner.

Trends and Conclusions

For this analysis I need to set out a few assumptions. This paper is entitled Bullion or Barrick, so let me stick to those two variables, disregarding more 'exotic' gold options such as jewellery and

coins, where other intrinsic characteristics can distort the fundamentals. Barrick Gold, is the world's largest gold miner by production and market value.

3-year findings

Barry Cooper of CIBC World Markets recently completed an analysis, using normalised share prices, which shows that between two points in time (Q1 05 and Q2 08) gold has grown more than Barrick Gold. The interrelationship has not been constant throughout the period as sometimes Barrick has outperformed gold price and other times it has lagged considerably.

Overall, gold increased at an annualised percentage of 23%, whereas Barrick increased by 19%, with an underlying correlation of 97% between the two.

I've added another major, NYSE-listed Newmont Mining, to the chart. It makes interesting viewing. For the first half of the period Newmont showed far superior returns to the gold price (and Barrick) but since Q3 06 it has been a much weaker performer. Incidentally, CIBC's figures indicate that Newmont's correlation to the gold price over that period was only 24%!

10-year findings
Let's now look at a wider timeframe. 10 years is a nice round number. The following table shows the performance over the 10-year period commencing 1 September 1998, of gold and the XAU stock index as well as the two largest gold producers.

INDEX	1 SEPT 98	1 SEPT 08	
GOLD (US/oz)	279	822	+195%
XAU	51	139	+173%
BARRICK	20.55	35.00	+70%
NEWMONT	14.31	42.93	+200%

The XAU stands for the Philadelphia Gold Exchange index comprising 10 precious metals producers and is the most commonly used index as a proxy for the senior sector of the gold industry.

While gold has posted an impressive 195% rise in ten

years, the XAU has grown slightly less, by 173%. However, once again Barrick has underperformed the gold price, this time substantially.

Conclusions

In the 1990s it was common wisdom that investors bought gold shares for their optionality on a gold price rise. However, the empirical evidence of the last three and ten year periods, based on the XAU and the individual performance of Barrick Gold and Newmont Mining, shows that the relationship has changed and gold stocks often underperform the gold price.

The reasons for the loss of the gearing effect, which gold producers had in the past, come down to how the market perceives the production growth prospects for gold companies, investor attitude to country risk and the impact of hedging strategies. ■

Paul Burton
www.gfmsworldgold.com



The Alchemist is published quarterly by the LBMA. For further information please contact Stewart Murray, LBMA Chief Executive 13-14 Basinghall Street London EC2V 5BQ Telephone: 020 7796 3067 Fax: 020 7796 2112 Email: alchemist@lbma.org.uk www.lbma.org.uk

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

"It used to be the case that pessimists bought gold. That's not true any more. These days the optimists are buying gold - the pessimists are buying rice, bullets and bottled water."



For its **11th Biennial Dinner**, the LBMA returned to the gilded splendour of the Goldsmiths' Hall, where the first dinner was held in 1988. The dinner was attended by some 200 representatives of Members and Associates, together with guests from other markets, central banks, the FSA and the UK Treasury. The speech by the LBMA Chairman, Jeremy Charles (which is reproduced on the website at www.lbma.org.uk/events/membervnt) focused on the LBMA's achievements during the past year. The Chairman was delighted to welcome all six former LBMA Chairmen along with three of the signatories who had signed the LBMA Memorandum of Association 21 year ago: Les Edgar, Neil Newitt and John Wolff.

In a departure from tradition, the chief guest, Mr Tim Harford, aka the Undercover Economist at the Financial Times, presented a light-hearted and amusing speech revealing some interesting aspects of human nature relevant to the trading environment, culled from various research studies, including the hormone levels of rutting stags and of bullish traders. Mr Harford's analysis of human behaviour ultimately supported Adam Smith's advocacy of free markets, even in the context of speed-dating. Following a toast to the guests by the Chairman, Dr Paul Fisher, the Head of the Bank of England's Foreign Exchange and Gold Division, brought the evening back to a more serious note during his response on behalf of the guests. He touched on ramifications of the current financial crisis and also mentioned the Bank's work with the LBMA in maintaining the physical quality of gold bars.