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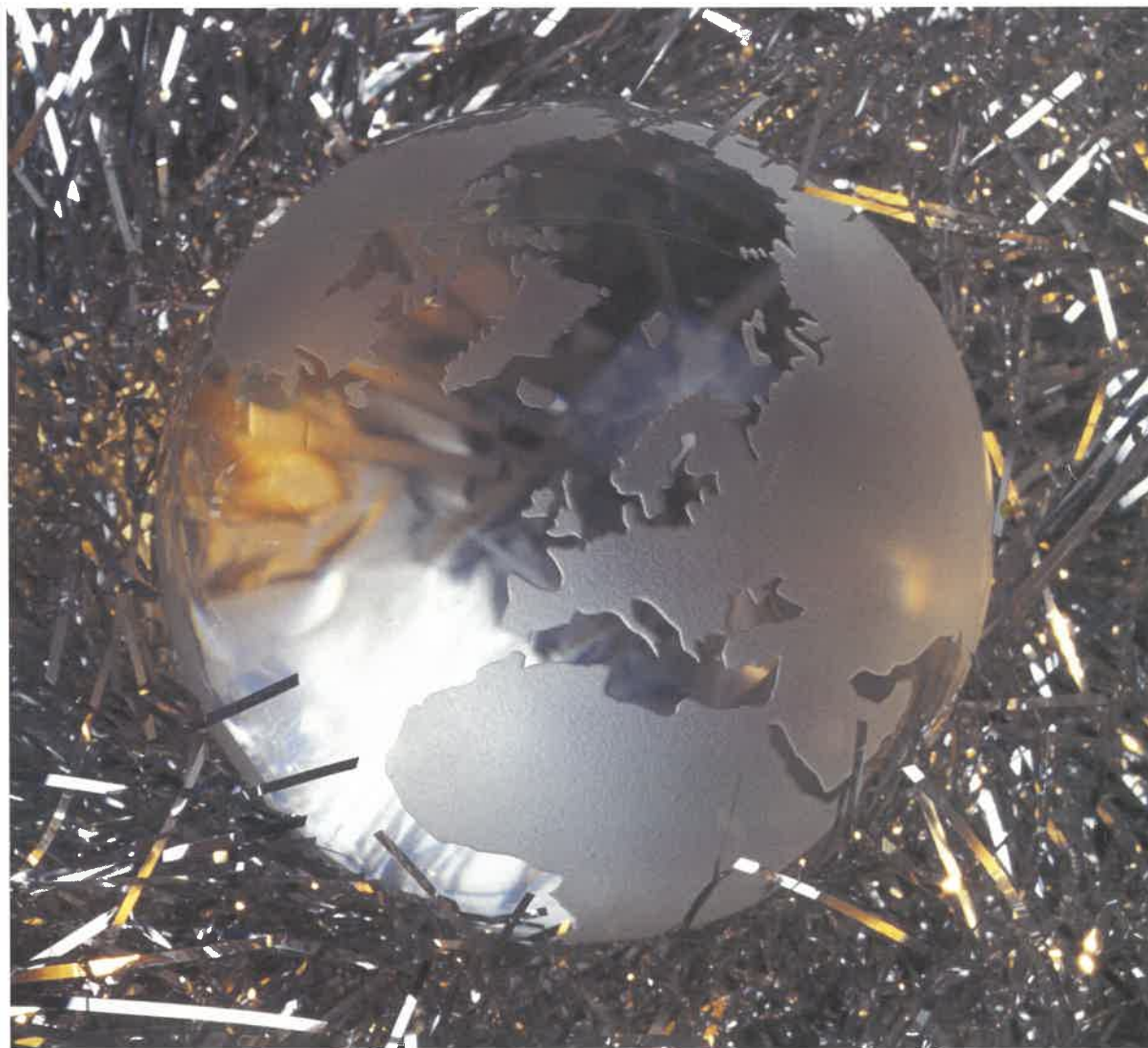
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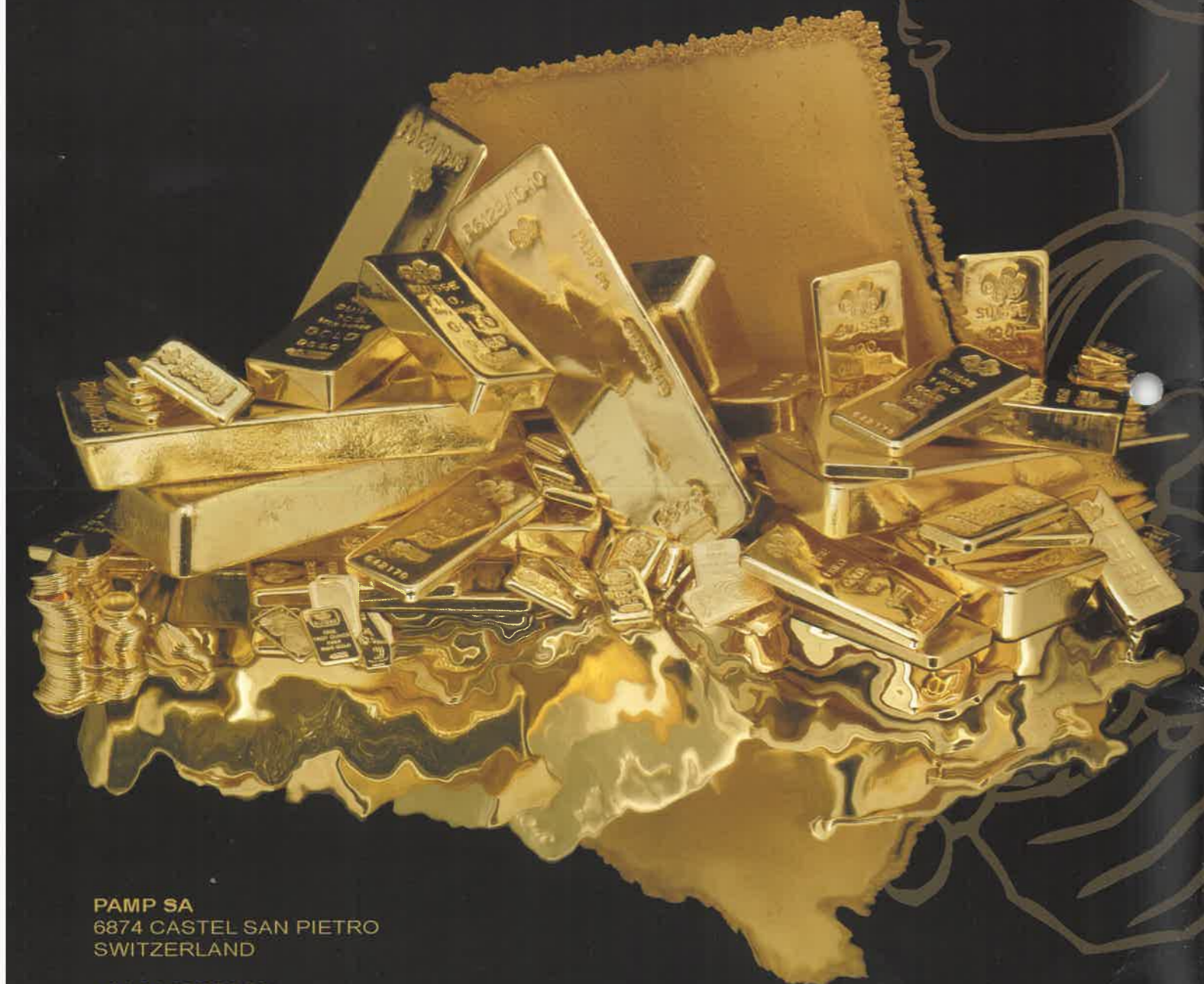


Global Presence – Though London remains the centre, the LBMA's sphere of influence now spans 35 countries. The Association has held events in nine countries and is planning its next Conference for Johannesburg in November 2005.

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Neither a Lender nor a Lender Be

The Outlook for Precious Metal Deposit Rates

By John Reade, Precious Metals Strategist, UBS AG

2004 will be remembered as a positive year for holders of most precious metals, with strong gains seen in gold – which has hit a series of 16-year highs, silver – which has broken through \$8/oz for the first time since 1987 and platinum – which traded to \$942/oz in April. Only palladium has disappointed, again, and looks set to end the year where it started – at about \$200/oz.

But while the dollar-denominated prices have performed well this year, deposit rates – the interest paid to lenders of metals – have barely moved, and remain at or near all time lows.

It is worth briefly explaining who the participants are in the metal lending and borrowing markets, as their positions explain why rates are where they are and what has to happen if metal interest rates are to increase.

The Lenders

Holders of physical metal that meets good delivery standards can deposit metal with banks that offer deposit-taking facilities in precious metals. These holders include central banks and private individuals and, more rarely, institutional investors and producers.

Lending involves physical transfers of metal – only clients that are able to physically move metal, usually into the loco London clearing system (for gold and silver) or Zurich (for platinum and palladium), are able to receive interest on their metal.

Note that users of derivatives are also lenders of metal when they are long, although the deposit rate is usually built into the derivative price rather than explicitly paid.

Central banks are the largest owners of lent gold. In silver, private individuals and derivative buyers are the most important, with only limited official sector holdings. The pool of pgm liquidity is much shallower and is made up of private holdings, official sector metal and stocks of unsold metal held by producers.

The Borrowers

The original borrowers in the metals markets were jewellery and industrial fabricators that needed to finance work in progress.

Some industrial users, especially the oil and chemical industry, borrow rather than buy their precious metals requirements (mostly pgms).

More recently, mining companies have borrowed metal in order to facilitate forward their hedge positions – essentially short forwards and sold options positions.

Other users of derivatives, such as hedge funds, also borrow metal when short (or are lenders when long).

Short sellers of futures effectively borrow metal, while those who are long futures are lenders.

So why are interest rates so low?

One: because above-ground stocks of metal are so large. There are two primary reasons for this: first, that the metals are so valuable – and relatively cheap to return to deliverable form – that they are aggressively recycled. Second, most precious metals have few real uses – or at least a large proportion of their usage does not result in the destruction or permanent utilisation of the metal. Jewellery demand, an important application for all four precious metals, is often described as underpinning the price of metals; but the downside of jewellery demand is that it is rarely forever and is often recycled when the price is right.

Secondly, precious metals rates are low because long investors lend their metal to the market – at least up until now. Low borrowing

costs of major currencies, especially the US dollar, have encouraged investors and speculators to gear up and buy many asset classes, including precious metals. But investors who buy gold futures effectively lend the face equivalent of the futures contract into the market. And investors who buy gold and keep it in unallocated accounts also allow this gold to be lent out to the market. Only investors that buy gold and take physical delivery, or keep the metal on allocated account, do not cause gold to be lent to the market.

While there are a large number of similarities between the outlooks for the interest rates of the four metals, it is worth spending time on them individually.

Gold

The gold market remains awash with liquidity, mostly due to cyclical factors, although there have been some structural changes that have also put downward pressure on gold interest rates in the long term. We do not expect any relief from the general low levels of gold interest rates over the next twelve months, but there are reasons to believe that the fall in gold interest rates to near zero may not be a permanent phenomenon.

On the cyclical front, speculators have amassed record net long positions on the Comex futures exchange and, we further believe, hold large over-the-counter positions. Looking at Comex alone, this has resulted in an increase in lending of sub-six-month gold of 25 to 30 million ounces. While the dollar continues to weaken and dollar interest rates are low, speculators will continue to hold large long positions in gold.

The change in the behaviour of gold mining companies appears to be largely structural in nature. We expect gold companies will continue, in aggregate, to reduce their hedgebooks – even when the gold price falls: based on recent behaviour, more gold will be bought back if the price declines. Recently, mining companies with large hedge books have slowed their rate of hedgebook reduction due to high prices and the opportunity cost (in terms of reported results at least) in delivering into contracts that are underwater.

Longer-term Increases in Gold Rates

There may be some longer-term relief for lenders of gold. Eventually, gold mining companies will stop reducing the aggregate industry hedgebook, if for no other reason than their hedgebooks will have been eliminated at some point. But we believe that some of the more nimble gold mining companies – those that have not found it necessary to promise to abandon their practise of hedging – will start to add to their hedgebooks before the total industry position is eliminated. While we doubt that the producer borrowing business will return to the 'Go-Go' conditions of the late 1990s, a return to net borrowing from this sector looks likely at some point in the future.

On the investment front, there are two reasons to believe that lending pressure from this sector will wane in time.

Firstly, funds will eventually tire of large long gold positions. Dollar interest rates are rising, increasing the opportunity cost of owning gold and the dollar will eventually stop falling. At some point we expect speculators to start playing gold from the short side, which may encourage investors to take profits.

Secondly, the growth in gold investment through vehicles that allow exposure to gold bullion via a listed security – exchange-traded funds such as Gold Bullion Securities – could see reduced lending from the gold investment sector. These products cause physical gold to be held and not lent back to the market and, if they were to become very popular, could mop up the availability and push gold interest rates to permanently high levels. If this is to happen, these products would have to attract about 10,000 tonnes of interest – or more than 30 times the purchases seen so far, which is unlikely in the near term.

Short-term Squeeze

So far we have only discussed the demand for borrowed gold, effectively assuming that central banks will remain steady lenders. While we believe this is generally true, recent changes to storage costs of gold in London may reduce the amount of idle gold in the clearing system. Historically, storage charges for unallocated gold were very low (or even zero for the best customers) but recently the consequences of large balances of unused gold caused material charges to be made to hold gold loco London. This will cause gold to leave London for cheaper destinations and will result in a decline in gold immediately available for borrowing. If, as periodically happens, there is a sudden demand for borrowed gold or a reduction of lending, as sometimes happens around the end of the year, then gold interest rates will quickly head

higher; and unlike on previous occasions, rates would stay higher for longer, as it would take time to move the metal back into the loco London clearing system.

Silver

If there is one fact that investors in the precious metals market have learned by heart, it is that silver demand exceeds supply and that stocks are being drawn down. This has led observers to conclude that stocks of silver will run out and that the silver price will move higher – perhaps, according to the most enthusiastic of observers, to rival or surpass even gold. The outlook for the silver price is beyond the remit of this document, but strongly negative deposit rates for silver imply that the London silver market is groaning under the weight of silver stocks, with few borrowers in sight. Unlike gold, the official sector is not a major holder of silver. Large European-dealer silver stocks are largely a consequence of the vast speculative long positions in Comex silver, which now

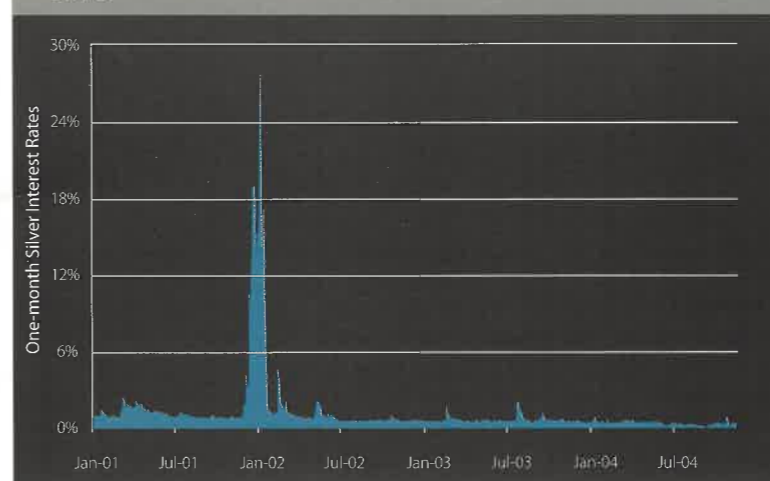
approach 500 million ounces, or not much less than a year of annual production.

While speculators remain long silver and producers are strangely reticent about hedging the current high silver price, silver lease rates look likely to remain under pressure. In the very long term it is possible that the ongoing silver deficit will reduce the quantity of silver available for borrowing, however, we believe that identified stocks of silver will be sufficient for another five to ten years of deficits and that unidentified silver stocks will get sucked into the silver market on any increase in silver interest rates or the silver price.

Palladium

Palladium lease rates have remained low for the most part for the past x years, even during the rapid move higher in the spot price in 2000/2001, probably indicating that speculators had bought and were lending palladium through the spike. It also indicates that the buyers of palladium were not interested in borrowing the metal, probably

Silver



because they were not prepared to take a bet that the price of palladium would fall. In light of the ongoing supply/demand surplus in the physical palladium market, the large speculative long position in Nymex palladium and the large increase in the implied stock level of palladium in Switzerland (the centre of the leasing market for platinum group metals), we do not expect palladium rates to tighten any time soon.

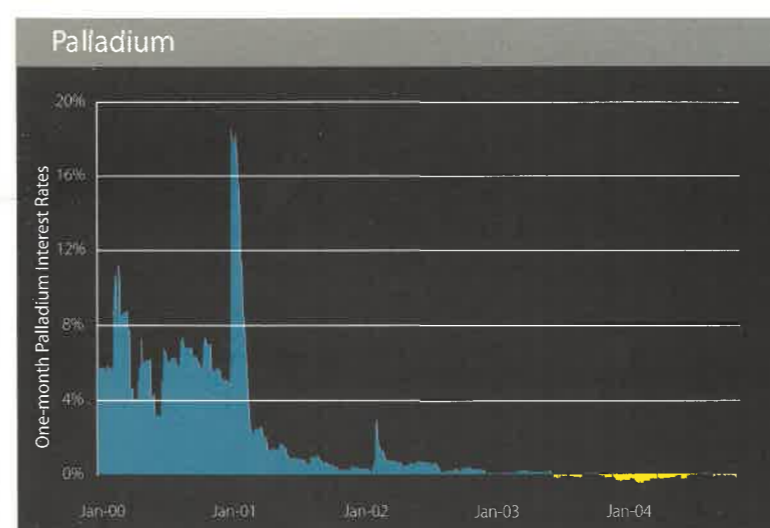
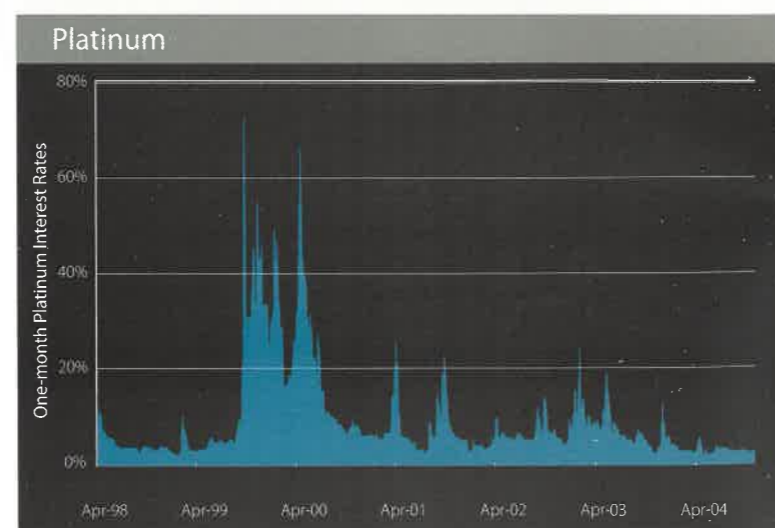
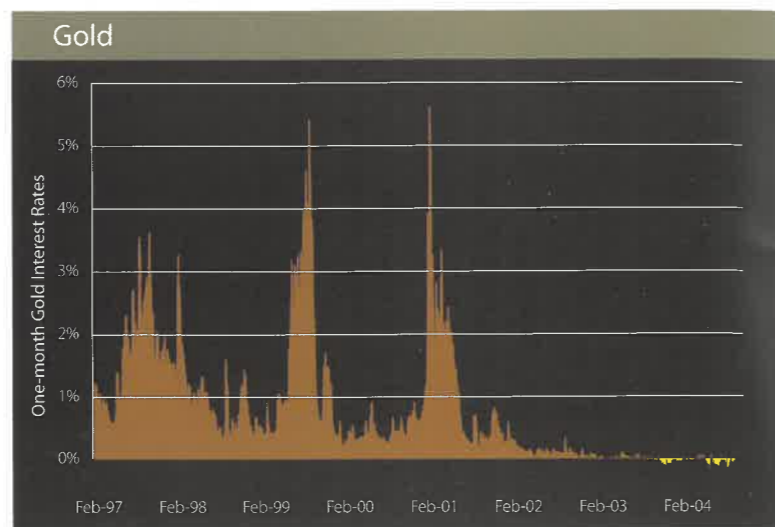
Platinum

Of the four precious metals, platinum has been the exception to the general rule. Although deposit rates for platinum have declined, they remain (just) positive, and platinum has had by far the highest average lease rates over the past few years. Like silver and gold, platinum demand has exceeded supply, but unlike the other metals, there are few stocks of platinum in the market and speculative positions have been relatively modest. In addition, some users of platinum, particularly in chemical and oil industry

catalysts, have borrowed rather than bought their metal. Some jewellers also borrow rather than buy platinum.

Even in platinum, however, the market looks set to experience a period of ample liquidity. The deficit between supply and demand should close this year and platinum looks set to be oversupplied at least for the next two or three years.

Lease rates are low for all four metals and this situation looks set to continue. Even platinum, which has had the highest interest rates over the past few years, should see interest rates decline in 2005. If interest rates are to sustainably rise, more borrowing or less lending is required; lower stocks would help. It is possible to make a case for this occurring in some cases over the longer term but over the next year or two, large speculative long positions and a lack of borrowers will keep rates depressed. ■



John Reade is the Emerging EMEA currencies and precious metals strategist for UBS Investment Bank. Prior to this, he spent five years as a gold equity analyst in Johannesburg, the latter three of which were with UBS. He has been based in London since mid-1999.

Before embarking on a career in finance, John spent eight years as a mining engineer and production manager for what was then the third-largest gold producer in South Africa.

John is a regular speaker at gold industry conferences, and a member of the public affairs committee of the LBMA. He graduated from Imperial College London in 1986 with an honours degree in mining engineering.

Dead? Buried? Dormant? Resurgent?

A Prehistory of Gold Hedging in the 21st Century

By Paul Merrick, Vice President, RBC Capital Markets

Paul Merrick examines the history behind the current state of gold hedging. He asks what – if anything – could cause the situation to change, and how any future hedging activity might differ from that of the past.

These days it is rare to see the words 'gold' and 'hedging' in the same sentence. With gold's recent rampant price performance and producers rolling in cash, this pair of previously intimate bedfellows seems set to remain estranged for the foreseeable future.

Legacy positions are being bought back or allowed to roll off, new hedging activity is linked almost exclusively to project finance, and even then only when required by lending banks. The total of delta-adjusted producer hedges is currently around 7% of overall reserves, down from a high of 13% in 2000 – the lowest level since large-scale hedging began in the 1980s.

From Base-Metal Basement to Golden Phoenix

What caused this sea change in the risk-management policy of mining companies? The seeds of change were planted in 1999. In that year the US stock market was booming and the dollar appeared to be the universal store of wealth for the 21st century, while gold had become a quaint anachronism, a

throwback to the days when the value of a currency had to be backed by something tangible instead of being allowed to sink or swim in an ocean of issued paper and exchange-rate speculation. Gold

seemed to be heading towards the status of just another base metal.

In May the Bank of England announced plans to sell 125 tonnes of gold.

While not a significant quantity, the action seemed to confirm gold's demise as a store of wealth, and the price slumped to \$253, the lowest in 20 years.

In this environment of depressed prices and dismal prospects, it seemed unthinkable that gold could ever rise, phoenix-like, from the ashes of its obsolescence. But the confluence of three influences created just such a renaissance.

Three Winds Beneath the Wings

The first impact was September's Central Bank Gold Agreement. It limited the sale and leasing of gold by 15 European central banks, and on the back of the announcement the price immediately spiked from \$253 to \$329.

Though it soon sagged again, gold received another boost in February 2000 when Placer announced that it would suspend its hedging activities. Four days later Barrick, historically the world champion of major long-term hedging programmes, announced that it, too, would not be increasing its hedging. This dramatic about turn by two such heavy hitting hedgers sent shock waves through the industry. Did they know something that the rest of us didn't?

The second driving force was the result of the dramatic \$76 price spike, which highlighted problems that had been inherent – but dormant – in many hedge books. Suddenly they became overcommitted through, for example, the sale of deep out-of-the-money call options. It was never envisaged that these would be exercised, but now they were in the money.

Margin calls on out-of-the-money hedge books became life threatening to some companies, most notably Ashanti. These situations crystallised investor unease about the apparently mysterious and arcane hedging practices of some gold producers.

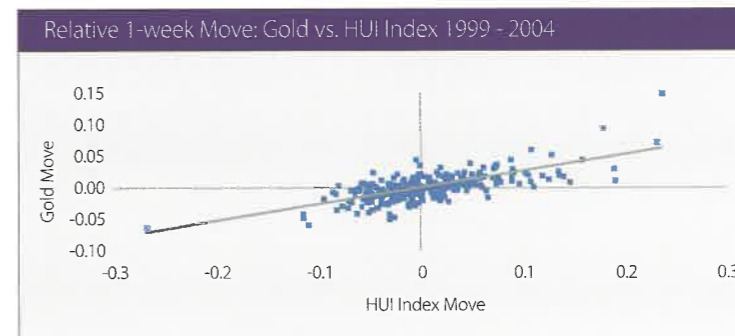
The third and final nail in the coffin of gold

hedging was struck when the Internet bubble burst in April 2000. Equity analysts, who had been riding high on the promise of untold wealth from the technical revolution, wiped the egg from their faces and searched for another sector to recommend for rapid growth investment.

With gold now regaining favour as a store of wealth, a means of maintaining lucrative broking income became crystal clear. Gold equities became a leveraged bet on the gold price. For established producers the 3:1 rule has worked well: for each 1% rise in the gold price, their stock rises by 3%. Over the past four years, even die-hard hedgers have been forced to abandon their programmes to avoid seriously damaging their share price.

Dick Cheney: 'Deficits don't Matter'

Against this backdrop of industry-wide anti-hedging solidarity, soaring prices and share price multiples that even the most optimistic of mining executives could not have dreamt of five years ago – what could precipitate a return to the risk-management practices of the past?



Clearly, a significant fall in the gold price would focus the attention of many producers on their non-hedging stance. Depending on the size and rapidity of such a fall, the very survival of some of the more marginal operations would be threatened. Panic selling by distressed hedgers could then precipitate further falls.

The gold price is inextricably linked to the strength of the US dollar, with which it has demonstrated a long-term and very strongly negative correlation: when the dollar is up, gold is down, and vice versa.

Could we see a resurgence of the dollar in the short- to medium-term? Almost certainly not: the dual deficits hang like a millstone around the currency's neck, and the newly reinstalled administration seems very comfortable with the status quo. In the run up to the recent election, Dick Cheney was quoted as saying "deficits don't matter".

But even if the gold price were to remain strong, we could still see a return to some producer hedging if there were a change in sentiment towards gold stocks by the investment community. Gold equities are trading at a significant multiple of their net asset value due only to the enticing prospect of spectacular profits should the price take off in a serious way, as it did in 1980, when a high of \$850 was reached.

Hedging in this way, if the price does reach \$850 again, everyone will be happy. The small cash outlay on the options will pale into insignificance and gold producers will take their places in the front carriage of the gravy train.

Hedging does not Equal Loss of Upside

Should gold fail to live up to this promise over the next year or two, mining stocks could quickly fall out

of favour with analysts and advisers who would dump them and go in search of the next get-rich-quick sector, like children bored with last year's toy. A producer's hedging stance would then no longer be so critical to its share price and it would free to pursue the risk-management programme it deemed appropriate.

Mining executives have privately expressed their frustration at a situation in which they perceive they are being held to ransom by the investment community. To many, acting so as to guarantee at least some of their future income at prices not seen for over 16 years makes sound business sense, but they dare not do so in the current environment.

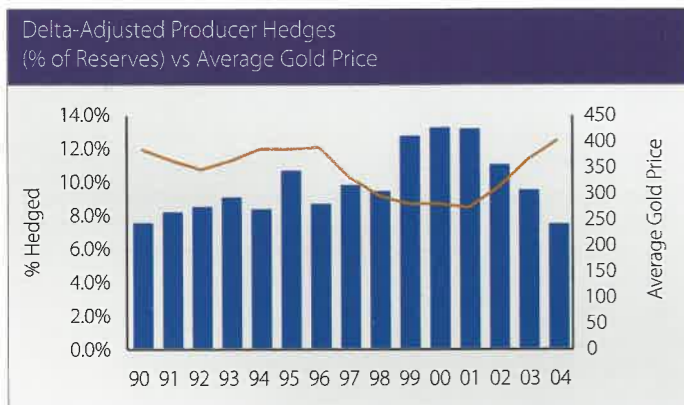
About now we generally hear that hoary old chestnut: "But investors purchase gold stocks because they want exposure to the metal price, so hedging is against shareholder interests".

This argument is both hackneyed, and wrong. In truth, investors purchase gold stocks because they want exposure to the metal price – but only if it rises. If the price falls, they would, presumably, like some protection of their investment. (I have yet to meet an investor who wants to lose money when they make a bad decision).

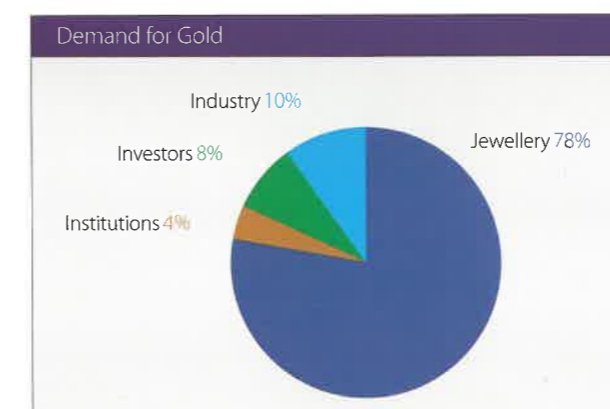
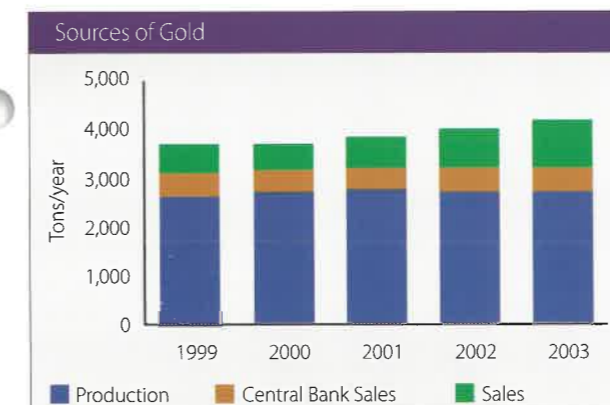
A simple product would satisfy both the objectives of upside participation and downside protection: a bought put option on the gold price. Here is the central point of this article: hedging does not have to equate to the loss of upside. With prices at their long-term highs, the industry is in a better position than ever to be able to afford put options, the safest and most natural product with which to hedge gold price exposure.

Hedging in this way, if the price does reach \$850 again, everyone will be happy. The small cash outlay on the options will pale into insignificance and gold producers will take their places in the front carriage of the gravy train.

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The irony of the current situation is that producers feel unable to hedge at a time when market conditions are at their most favourable for hedging in decades.



Gold vs Reciprocal of Trade Weighted US\$
(Normalised to 100 at Start)



It's Hedging, Jim, but not as we know it

If hedging in some form were to return to the industry, would it be hedging as we know it?

The short (though, admittedly, less than punchy) answer is, "sort of". Some of the debacles of the late nineties will live long in the minds of mining executives and investors. As a result, future gold hedging programmes

especially FAS 133 and its counterparts, impose strict conditions on the applicability of hedge accounting treatment for derivatives. We would therefore see a far smaller emphasis placed on exotic products than in the past.

I would expect the gold hedgers of the future to adopt a different attitude towards price protection. Gold's unexpected resurgence highlighted the disadvantages of capping a large proportion of upside by selling forward or using producer collars. Instead of focussing solely on the up-front costs of hedging, producers will also consider their potential liabilities and will not be seduced by the illusion of "free" price protection: we all know now that there is in fact a cost, namely the loss of upside.

Future hedgers will be opportunistic in taking advantage of favourable conditions instead of being forced to act in an ever-worsening market. They will view their hedging costs as an insurance policy rather than treating their risk management operation as a profit centre.

The industry as a whole would benefit from an across-the-board decision to include the cost of put options in the stated cost of production. With the costs accounted for, there would be less likelihood of adverse reactions to protecting the company's income.

So – Who Wants to Seize a Golden Opportunity?

The irony of the current situation is that producers

feel unable to hedge at a time when market conditions are at their most favourable for hedging in decades.

Prices are close to sixteen-year highs, contangos have risen above their long-term average, and even if no cash is available for purchasing price protection, zero-cash-flow collars can be established with extremely attractive call strikes.

Throughout two decades of widespread gold hedging, producers have tended to be more active in lower price environments. This can be seen from the fact that the average realised hedge price has been around \$320, significantly lower than the average spot price of \$340 to \$360. Current market conditions permit excellent sale levels to be guaranteed at affordable prices.

It remains to be seen whether the industry will be willing or able to seize this golden opportunity. ■

Prices at 15-year Highs



will be more conservative than in the past, driven by the need to have a policy that is easily understood by investors, with clear objectives and dealing parameters.

There will be no over-commitment of quantity through sold calls or leveraged products. The price spikes of 1999 and 2000 exposed problems inherent in some of the more esoteric exotics, and accounting issues,

"Free" Insurance: The Lesson Learnt?



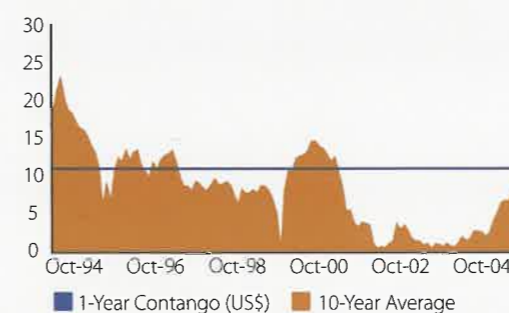
Spot Protection

Notwithstanding the desire to maintain as much upside as possible, here are two examples of structures that give protection at or close to the current spot price — assumed to be \$435 — yet also have ceiling prices that are very attractive when compared with those observed over the past 25 years.

1 — A five-year zero-cash-flow collar can be created with a put strike of \$435 and a call strike of \$605 — a higher price than we have seen since the heady days of 1980!

2 — For every quarter over the next five years, sell forward at \$415 and buy a \$435 call. For each quarter in the fifth year only, sell a \$500 call. This structure has a zero up-front cash flow.

1-Year Gold Contango History



Paul Merrick joined the Royal Bank of Canada's new London-based gold team in August 2004 to work in gold marketing and structuring commodity-based products. Previously he was with NM Rothschild and Sons for 16 years, both in Sydney and London, where he was director of technical development.

He specializes in creating structured products and applying them to client risk-management

requirements. He also advises clients, in particular mining companies, on more general issues of hedging policy and long-term strategy.

Paul is a periodic speaker at conferences and professional associations, where his stridently-voiced views on hedging and the appropriate use of financial instruments can usually be relied on to generate lively debate.

Two easy steps to knowing what's what in the gold mining industry:

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Capital Ideas – One and Two

The New Basel Capital Accord and its Implications for Precious Metals Trading

An Interview with Simon Gleeson, Partner, Allen & Overy

Developed and introduced in 1988 by the Basel Committee on Banking Supervision, the original Basel Capital Accord has been in use in over 100 countries. But in 1999 – a mere 11 years later – regulators started work on a revised accord, designed to better handle real-world risk.

What will be the impact – if any – on bullion trading? Difficult to say, in part because not many market participants will be inclined to sift through the entire 300-page Accord to discover what changes are in store. We turned to Simon Gleeson, a partner in Allen & Overy, that rarest of rare breeds: someone who understands what it's all about and can provide a brief, understandable overview.

Basel I was originally designed to be the definitive guide on managing credit risk. Why the need for a new one?

The appeal of Basel I lay in its uniformity: the treatment of risk exposures was basically the same for all institutions. Unfortunately that strength was also its weakness: the same rules were applied automatically across a wide variety of situations, which in fact made arbitrage very

easy in some instances. In time the argument was put forward that Basel I had become a bad fit with 'real' risk exposures.

The new Basel Capital Accord – Basel II – was designed to set out a framework for better assessment and management of credit and operational risks by financial institutions. It has been relatively easy under the current system for banks to hold equity exposure; it may be less so under the new Accord.

What are the major changes under Basel II?

The new Accord will effectively split the world into four sets of bank regulatory supervision. Basel I will probably remain in force in the third world and for US domestic banks. The rest of the world will come under the three different regulatory schemes that Basel II will create: Standardised, and Foundation and Advanced Internal Ratings Based (IRB).

The Standardised approach is in fact very similar to Basel I – perhaps a bit more sophisticated – whereas Foundation and Advanced IRB are radically different. Under these two schemes, for every asset a bank has, it must use its own internal risk systems to calculate the probability of default and, given that scenario, the resulting loss. These two items are multiplied together to calculate the capital the bank is required to hold.

The difference between Foundation and Advanced IRB lies in the how the calculations are made. Under Foundation IRB, the

bank can use its own internal risk model to calculate the probability of default but uses supervisory guidelines set by the Committee to determine the exposure and estimated loss given default. Under Advanced IRB, the bank uses its own model to calculate both the probability of default and the estimated loss – thereby assuming all of the

responsibility for calculating the risk inherent in any of its positions.

How are physical assets treated under Basel II?

Basel II recognises that physical assets don't fit into the credit framework. In the case of asset finance or ship finance, the risk involved is the value of the asset

being held, a scenario comparable to core holdings of physical gold. Under this approach, the bank simply buckets the holding in accordance with its internal credit risk system – the method used by Advanced IRB banks. In general, as far as long-term core holdings are concerned, there is a move towards banks developing their own ratings for risk.

Under Basel II, commodities (including gold) may be held in the trading book. Bank capital adequacy is divided into two classes: banking and trading. Assets such as loans are put into the banking book, whereas the trading book includes securities with a market exposure.

If an asset falls into the banking book, it is assumed that the credit risk is the entire value of the asset. However, for trading assets, the bank needs to assess what the worst-case scenario would be if it were forced to sell the exposure in the market, therefore the exposure would be something less than the complete value of the asset. These worst-case scenarios need to be periodically recalculated to reflect changing market conditions.

Both in the banking and the trading books, however, an IRB bank must be able to calculate a probability of default figure. This raises the interesting question of risk weightings for any exposure; it must be able to calculate a probability of default. This in turn raises an interesting problem for physical assets: how do you create a default model for an asset that – by definition – cannot default. This problem arises in a number of odd contexts, for example loans to UK Housing Associations, where there has never been a default. How can a bank validate its model under that scenario? It is either forced to use one that isn't appropriate, or it isn't eligible for Advanced status.



Will there be a change in the way banks price the lending of gold as an asset in different geographic regions?

It seems likely. The purpose of Basel II is to have a system in place that is prepared for all types of risk and looks at all possible consequences, rather than mechanically applying the same standards across the board. Banks will be prohibited from keeping two sets of controls – one for internal risk and one for

regulatory capital. Thus, where a bank perceives different credit risks in different situations, it will be obliged to factor those risks into its regulatory capital calculation. We would expect this in turn to impact pricing.

How does a bank obtain IRB status – and how might that affect its standing with competitors?

Banks will have to apply to their regulator, which will then examine the banks' internal evaluation systems. The system is designed to encourage sound internal practices, since only those banks deemed to have sufficiently robust systems will be able to use their own models.

The interesting question is to what extent obtaining Advanced IRB status might give a large bank able to validate its models an edge over smaller competitors unable to do so. Two banks currently on an identical footing in terms of their regulatory capital requirements may no longer be equals under the new Accord: one may have lower costs – and a distinct advantage with customers – than the other.

Perhaps a total of 200 banks around the world will be able to obtain Advanced status; of those, perhaps six will be active in bullion. It's safe to assume that virtually all Advanced banks will be located in either the US or Europe.

What have been the general reactions to Basel II in the global banking community?

Many banks have internal teams analysing the document, but these generally haven't finished making their final recommendations – some of the bigger strategic consequences are still being thought through. The skill sets needed to analyse the Accord are not widely available – even within the FSA and the Federal Reserve, it is well understood by perhaps only a few dozen people.

There are some geographic differences emerging, and there have been some grumbles here and there. Japanese banks have some transition issues, but there is a general desire to bring exposures into line. In the UK, the FSA has noted that if banks are already

providing their own guidelines for capital adequacy, the new Accord will have little impact.

Despite the Federal Reserve being on the Committee, the US has been slower to reach a consensus on the Accord. Now that the American Banking Industry has realised that Basel II is a fait accompli, it has started to lobby the US Congress. Americans may ultimately implement a slight variant on the original.

The new Accord will completely restructure the regulated sector and may in fact squeeze some businesses out of that sector. If its effect is to force banks out of business that is in effect too risky, then that could be considered a good result. However, if the net effect is that high-risk business is conducted outside the regulated sector, this could reduce regulator's ability to monitor and control risks to the financial system as a whole. That would be a less desirable consequence – and it's not what was intended by the discussions.

When will Basel II be implemented?

In the G-10 countries, it will come into force officially from year-end 2006 for Standardised and Foundation approaches and year-end 2007 for Advanced. It will likely be implemented in stages elsewhere. Given that Basel I, which was also initially implemented in the G10 countries, is now in effect in more than 100 countries, the sphere of influence of Basel II will likely spread. It should be in place in most regions by 2009. ■



Simon Gleeson joined Allen & Overy in 1998 and became partner in 2001, working with the financial services regulatory team based in London. As a former stockbroker, he has particular expertise in the regulation of the securities and financial markets, and also specialises in custodianship, investment vehicles and bank capital regulation. In 1999 and early 2000 he was on secondment to the FSA, assisting with the preparation of the new market-abuse regime in the UK.

Simon obtained an MA (Hons) from St Andrews University before obtaining an LLB from University of London. He qualified as a barrister in 1991 and was admitted as a solicitor in 1995.



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The Indian Gold Market

Some Thoughts on Past and Future Developments

By Stewart Murray, Chief Executive, London Bullion Market Association

*The following article has been
extracted from a presentation
given at the Assocham Gold*

*Summit held in New Delhi on 30
October 2004.*

The Indian Gold Problem

If there is a peculiarly Indian gold problem, it can be summed up as too much demand, no indigenous supply and a succession of governments nervous about their people spending hard-earned foreign exchange on gold. It was reflected above all in the period of Gold Control which, for almost 30 years, attempted to limit imports, ownership and economic activity involving gold.

The Indian gold problem is certainly much less acute than it used to be. Successive governments have faced up to the reality that banning things only makes them more desirable to the population at large, as well as creating opportunities for criminals. But in one way things have not changed that much since private ownership of anything other than 14-karat gold jewellery was forbidden. The average Indian man and woman are conditioned by reasons of culture, society and economics to be a potential gold (or silver) consumer in a way that just does not happen in most European countries. This may change in the long term – with the development of alternative investment instruments, with greater trust in the banks and with a raising of literacy and sophistication in village India. The accompanying charts suggest that this might already be happening, but there are a lot of ifs implied in this evolution, and it also probably involves a very protracted timescale.

The second aspect of the Indian market is the paucity of domestic mineral resources of gold. Unlike Russia and China to the north or the Pacific rim of fire to the east, India has not been blessed with a geology that makes it possible to supply more than a tiny part of its people's demand for gold.

So in short, India still imports a large

amount of gold every year (gold is normally the country's second largest import after oil), and the price of this gold is high enough to matter. When oil prices rise, as they did earlier this year, ministers and civil servants usually also start worrying about the cost of all these gold imports.

In the past, the normal reaction would no doubt have been to take measures to control or limit the inflow. But things have clearly changed and there is no sign of this happening. I have the sense that the reform process has gone so far that it is most unlikely to be rolled back.

However, it is equally clear that the government is not yet willing or able to go all the way and introduce total freedom for bullion imports until Capital Account Convertibility can be introduced.



India's fascination with jewellery is reflected in everyday scenes, like this one in the shop of GR Thanga Malagai in Chennai.

Supply

We can divide this supply into two parts, the first being the role of the central banks, which have become important and regular suppliers of bullion to the market in the past decade, via the lending of their gold to the commercial banks in London or in the form of outright sales. The second part essentially consists of new mine supply and the recycling of scrap.

When we look at the situation in India, we can ignore the official side (certainly in terms of it supplying the local market), and Indian mine production of gold continues to be

insignificant relative to the level of local demand. The scrap business, however, is a huge industry in India, though the refining of this scrap remains highly fragmented and dominated by informal production units.

Indian Refining

India has plenty of refiners, some medium-sized, but most are tiny, encompassing not much more than a crude furnace, a crucible and a supply of nitric acid. There have been many announcements about new world-class refineries being built but, so far, none of these projects has borne fruit. There are no LBMA-accredited refiners in India, and none have even submitted a valid application.

There is an urgent need for such a refinery, especially if India is to be allowed freely to export bullion again. Apart from the financial investment and the technology needed to achieve a satisfactory level, one element will be absolutely crucial, namely credibility (not just in a technical sense but also in terms of reliability and reputation). Without this, one can end up with a white elephant.

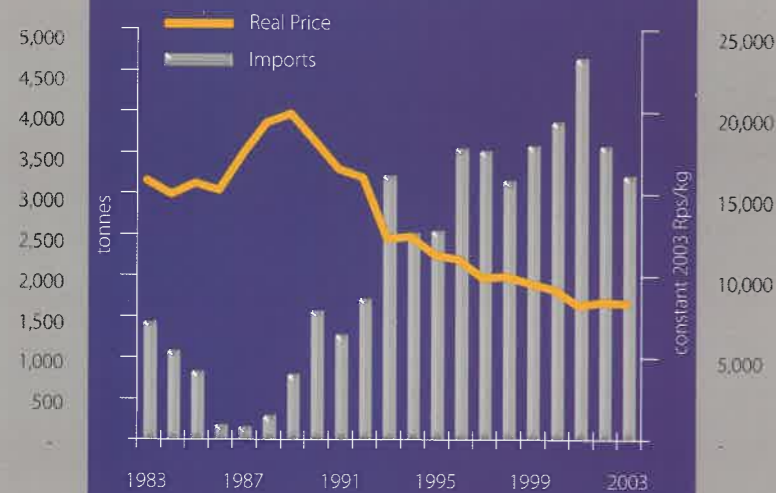
And any promoter of a world-class refinery in India will be under no illusions about the difficulty of collecting sufficient feedstock in the form of old jewellery from the length and breadth of the country.

I have mentioned some of the issues about bullion quality in terms of the technology required to produce it, but measuring this quality is also a challenge. And lastly, there is the related challenge for commodity exchanges in ensuring that they can consistently deliver quality. This is clearly quite a lot easier in a wholesale market for large bars than it is in one dealing in kilobars and smaller bars.

Indian Bullion Supply

For most of its recent history, Indian demand for gold has vastly exceeded the supply of local scrap, so with domestic mine production remaining insignificant, there have had to be substantial imports of bullion. In the good old / bad old days, these arrived almost entirely via Dubai, but over the past decade the economic liberalisation in India has produced

Indian Silver Bullion Imports and Real Price



Indian Gold Bullion Imports and Real Price



schemes to assist exporters only to find that they are exploited by traders who really have nothing to export. Perhaps the message from this experience might be that if you have a soundly based export business, with real comparative advantage – such as competitive labour and good designers – and if you have a truly liberalised domestic economy, there ought not to be any need for special export incentives.

And one final thought on supply – I am aware that many commentators have pointed out that OGL means neither totally open nor totally general! Perhaps the important question is: when will true OGL imports be possible?

Commodity Exchanges

The re-appearance of commodities exchanges in India over the past 12 months has been a truly fascinating story. One must view the energy and expertise devoted to the launch of the new exchanges with admiration. It is often assumed that this may be a case of letting many flowers bloom and that, eventually, there will only be one exchange. This may happen, but I am not so sure. If you look in Japan, for instance, there are other commodity exchanges apart from Tocom. And of course in the USA, the recent announcement of a new gold contract by the CBOT emphasises that Comex/Nymex, though dominant, is not the only precious-metals exchange there.

It will be interesting to see how the three large exchanges in India develop. The participants in these markets encompass a fairly mixed bag of traders but not, as far as I am aware, banks. I wonder what is so dangerous about letting banks trade on these exchanges. Perhaps someone will explain that to me.

Institutional Aspects

Since the LBMA's forum held in New Delhi in January, 2003, one disappointment has certainly been that the launch of the IBBA has been stalled, or so it seems. There thus remains a clear need for an overall bullion association that would bring all participants together for discussions on the problems that need to be resolved.

It was most encouraging to hear the comments made by the Honourable Minister Kamal Nath at the Assocham gold summit, which suggested that progress along these lines will now be made.

On the regulatory side, I noted the proposals made late last year about combining the FMC and SEBI. I cannot comment in detail on whether this makes sense, but I can certainly say from the perspective of the LBMA that the decision to establish an all-encompassing financial regulator in the UK, namely the Financial Services Authority, has been a great success.

something of a revolution. With the enlightened decisions of the Finance Ministry, smuggling of gold now appears to be a thing of the past. From a researcher's point of view, this is actually rather a pity: it was much more challenging and stimulating trying to piece together the regional flow of bullion to and from places like the Gulf, Singapore and India's neighbours on the east, west and north than simply adding up the imports of a small group of banks and canalising agencies.

The method by which the bullion is imported now appears to be a straightforward choice between two routes – Letters of Credit (LCs) versus bank consignments – and how these alternatives are favoured by the prevailing rules affecting the interest rate arbitrage that drove LC-based supply to such high levels earlier this year.

I do not want to get involved in the debate about this, but it seems to me that the Indian market's supply problem has always been that, because of the tendency of policy to aim at inhibiting imports and consumption, special arrangements have had to be made to keep the exporters adequately supplied with raw materials. This results in the labyrinthine system of sops, which in total can amount to an inefficient policy.

Thus, if due to some combination of export incentives and a perfectly legal arbitrage, market participants find that they can re-export bullion in the form of crudely fabricated bullion, then additional supplies will be needed to replace the re-exported gold. This reminded me very much of the Korean touchdown business that produced such a distortion in Asian trade flows in the mid 1990s. It just goes to show how difficult is the lot of the bureaucrat, who develops admirable



Mr Madhusudan Daga An Appreciation

It was nearly 20 years ago when I first came across the slight but impressive figure of Madhusudan Daga. Sitting in the cloistered offices where the commodities research team of Consolidated Gold Fields pored over our spreadsheets trying to forecast the price and future demand for a very wide range of metals and minerals, I wondered who it was walking past to visit the then-editor of the Gold Survey, George Milling-Stanley, who had the office next to mine. I was to find out a few years later when, having set up Gold Fields Mineral Services (GFMS) to carry on the work of the ConsGold annual survey of the gold market, I got to meet Mr Daga properly.

As I soon discovered, his involvement with the survey pre-dated that of the new team by many years. In fact, since the earliest days of the Gold Survey (the first edition of which appeared in 1967), Mr Daga has been making invaluable contributions to our understanding of the Indian market. Later, as I got to know him better, I discovered that his gold market activities went much farther back.

He had first become involved in the Indian gold market in 1949, when he discovered how to get the latest prices from Bombay to Nagpur (his native place) by the then-cutting-edge use of the teleprinter. Much of his knowledge of the market was gained while working as a journalist, covering gold in particular, first for UPI, then for the Financial Express (and much later the Indian Observer newspaper).

Over the years, he became undoubtedly the best-known and most respected commentator on the Indian bullion market. Together with Shantilal Sonawala, the president of the Bombay Bullion Association, Mr

On my first field trip to India – to Cochin in Kerala (one of the most important gold consuming regions) – Mr Daga began the task of educating me on India's culture, history and other aspects of economic life.

Daga was a tireless advocate for the repeal of the hated Gold Control Act. I well remember the day in 1990 when I received the call from a very excited Mr Daga to tell me that Gold Control had been abolished.

When I started to travel extensively around India as part of the GFMS Research Team, Mr Daga never failed to accompany me on my travels. Wherever we went, we were greeted like old friends – by dealers, government officials and above all customs officers: such was the affection with which he has always been held by the market. My own knowledge of the Indian bullion market stems in large part from what I learned during innumerable discussions with Daga-ji and the many market participants to whom he introduced me.

But Mr Daga is much more than just an analyst of the bullion market. My son in particular is most impressed by Mr Daga's two-year prison term at the hands of the British in 1942 for being a freedom fighter. He has dabbled in the production of Bollywood films and also in horse racing. Perhaps, like some current dealers in London, his love of gambling aligned well with his interest in precious metals, though he gave up this particular vice (and some others) when he met his guru in the early 1970s. A devout Hindu, Mr Daga also taught me how to eat well, cheaply and healthily in India – not in expensive hotels but in the homes of his friends, family and in the simplest neighbourhood restaurants (always pure vegetarian, of course). During our research trips, as can be seen from the photographs, he would always insist that weekends be spent investigating local culture and history so that I could better appreciate why it is that India has become such a huge market for gold and silver.

Now 78 years old, Mr Daga shows as little sign as ever of hanging up his trainers and enjoying a well-earned retirement. I wish him many more years of observing and explaining the intricacies of the Indian market.



Stewart Murray presenting an award for a lifetime's work in gold to Mr Daga at the Assocham Gold Summit in New Delhi

Taxation and Duties

And now a few words about taxation. In India, it is obvious that taxation is a moving target, only in part due to the change of government this year. Taxes in India depend on time and location in a complex and shifting pattern.

Though import duties have been reduced to tolerable levels, they still exist, and as far as I know there is no proposal that they should be abolished. Our experience in the European Union this year has been a salutary one: the introduction of retaliatory duties by the EU on imports of US-manufactured gold and silver bars had a profoundly disturbing effect on the London market, which can only operate effectively if bullion imports are free of duty.

The moral of this story is that any import duties on bullion may prevent India from

becoming the global – or even regional – hub that so many people would like to see. The same can be said for the octrois, which municipalities such as Mumbai have attempted to levy for many years. This brings into focus the regional nature of the Indian tax system, which may make sense to those accustomed to a federal system of government and business taxation, but to someone from the UK it seems very odd indeed that neighbouring states or cities can engage in the kind of competition that sees the precious metals import business migrating round the country chasing the cheapest sales (and other) taxes. It did appear that rationality, in the form of a uniform VAT system, was about to be introduced earlier this year, but it appears that it came up against too many special interests.

Perhaps next year?

And as far as the willingness of the consumer to pay sales tax is concerned, I wonder in how many countries could you find a senior officer of an important government ministry admitting to a visiting researcher that of course he did not ask for a receipt when buying jewellery at the time of his daughter's wedding, because he did not want to pay the tax. And of course he was totally confident that his trusted family jeweller or goldsmith would never cheat him.

Jewellery Quality and Hallmarking

Ensuring that the consumer obtains quality in the jewellery that he or she purchases has long been a problem in India. The use of the Tanishq Karatmeter and an associated recent survey of

jewellery quality have admirably demonstrated the nature of the problem. Hallmarking has been put forward as a way of solving this problem, but I recognise that the introduction of hallmarking in India is an extremely complex issue, given the size of the country and the fragmentation of the jewellery fabrication and retailing business. In my previous career, I regularly visited hallmarking offices throughout the Middle East. In all cases they were modelled on the UK system, except in their being government-owned (which the British hallmarking offices are not). But these were generally small countries and hallmarking was compulsory, as well as having been in place for many years. The Indian situation is very different.

It seems rather paradoxical that in India, where almost all jewellery purchased has an underlying investment motive, most jewellery would fail to assay to anything like the marked fineness, whereas in the UK, where nearly all jewellery is bought as an adornment rather than an investment, the level of compliance with the marked fineness is near enough to 100%. In India, the tradition of the "buy back" is one impediment to ensuring quality, as are the taxation regime and the fact that much of the jewellery is bought for giving to others.

Hallmarking is not necessarily the only way forward. Consumer protection legislation may be just as important in ensuring quality, as a recent high court case demonstrated. But in contrast to the present position, such legislation needs to be enforced.

Assaying accuracy may be part of the problem, in that "touch" (the use of the touchstone) rather than a scientific assay is often accepted as the measure of quality. Even the above-mentioned Karatmeter provides only a rough approximation of true fineness. The only accurate way to determine gold fineness of jewellery alloys is by means of fire assay — something that the LBMA has developed considerable knowledge of in recent years.

India — End-user or Turntable?

Many Indian commentators and industry participants have opined on the possibility of India becoming a major hub for gold and silver. This will not be easy — the London market is unlikely to give up its role as the world's major bullion turntable and Dubai also has plans to play a similar role.

To have a chance of realising this dream, India must, in the first place, strive towards full integration with the world market, allowing banks and traders more scope for

using efficient systems of managing risk, which is what commodity markets are all about. Secondly, it is obviously impossible for India to act as a hub while the ban on exports of bullion remains. Incidentally, the ban on exports of bullion from India always struck me as a little paradoxical. The government clearly did not want the people to expend valuable resources on an asset that many ministers considered to be a sterile investment. This no doubt explained the ban on imports, but I never really understood why exports were not, on the other hand, actually encouraged!

The achievement of the long-standing goal of capital account convertibility would certainly make it easier for India to fulfil its ambition of becoming a major international hub for gold. However, though this may be a necessary condition, it is not a sufficient one.

True: there certainly has been great progress over the past ten years, but the reform process is not yet complete. The market's infrastructure has come a long way, but there is much that still needs to be done — for example, in vaulting, refining and assaying.

One thing, though, is clear. The development of this huge and complex market will remain a source of fascination for all those involved in the gold and silver business — wherever they live and operate. ■

Oscillators Go with the Flow

Analysis using Momentum Indicators

By Kevin Edgeley, Executive Director, Technical Analysis, Goldman Sachs

A previous article in the Alchemist series on technical analysis looked at moving averages as a method of defining trend. But what of non-trending markets? There are a number of technical tools that are available to analyse price action within trading ranges. These are generally grouped under the heading "Oscillators".

Oscillators assume a cyclical rhythm to market action and measure the amount that price has changed over time. Momentum is often used as a generic term for this relative performance.

Price action is a measure of the emotional intensity of the crowd and fluctuates between periods of optimism and pessimism, and

techniques using oscillators can give clues as to when this emotion is at extremes. As with many other technical-analysis techniques, the use of oscillators must be subordinated to basic trend analysis, as they can give misleading signals at the start of trend moves. However, markets generally spend more time in range phases than in trends, making these indicators a useful analytical tool.

A moving-average system that performs well in a trending market will fail within a range — its lagging nature will lead to a delay in buy and sell signals and a whipsawing of positions. An oscillator measures acceleration or deceleration in a price advance or decline and will help to find turning points on a leading or coincident basis. As a measure, acceleration is more sensitive than the speed of a move which, in turn, is more sensitive than the price.

And the Oscillators Are...

Some oscillators, such as the Relative Strength Index (RSI) and stochastic are normalised to fluctuate between set boundaries; others, such as Rate of Change and Moving Average Convergence Divergence (MACD) have no upper or lower boundaries. When an oscillator

is at its upper extremes or at a historic high, the market is said to be overbought; when at the lower extremes or a historic low, then it is oversold.

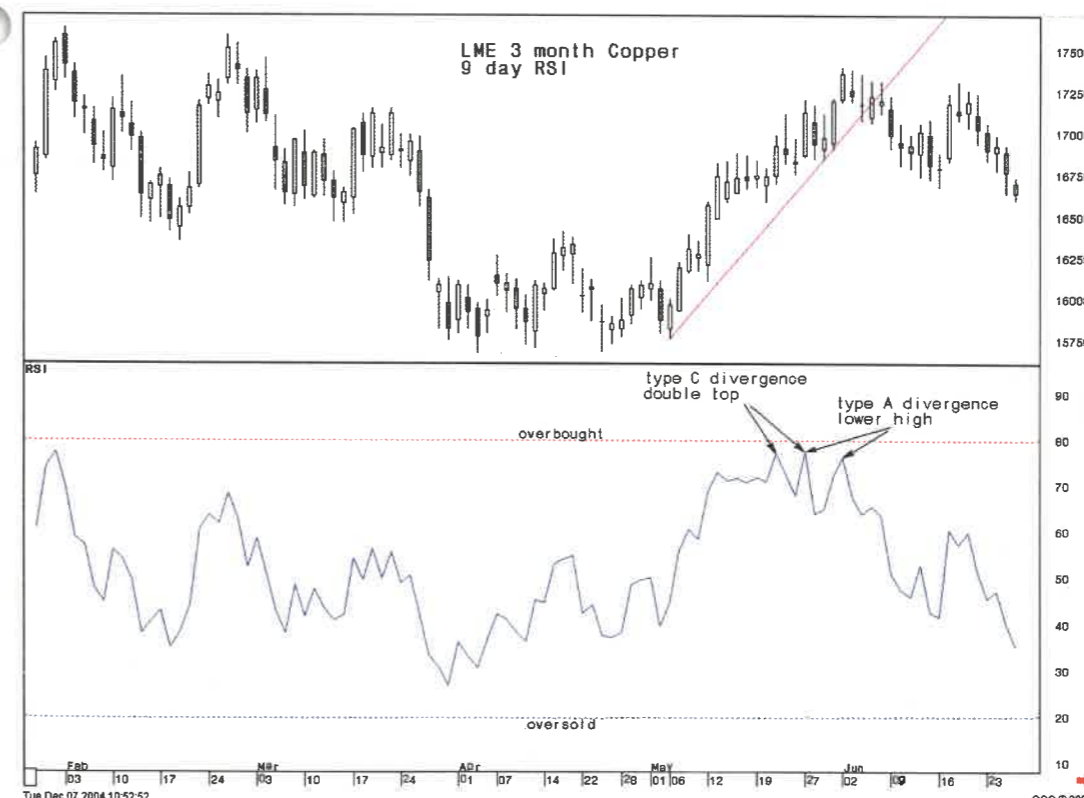
The overbought/oversold boundaries should ideally be adjusted to encompass around 95% of the price action but, practically, they are usually set according to the time period of the oscillator.

Oscillators can be used within a consolidation pattern to position for the next trend move. Buy when the oscillator is oversold in a longer term bull trend and sell short when the oscillator is overbought in a longer term bear trend. Oscillators are at their least reliable when markets are at range extremes prior to a breakout and new trend.

Trend-line breaks of the oscillator can give important signals and usually occur prior to trend-line breaks of the underlying price chart, giving a lead on sentiment changes. Traditional continuation and reversal patterns, such as "head-and-shoulders", can also be identified on oscillator charts. As with price analysis, one should look at oscillators over different time spans to gauge short-, medium- and long-term market momentum.

Divergence

An important pattern to watch for is that of divergence, which occurs when the oscillator fails to confirm a move to a new price high or low. This warns of a weakening of the trend structure, but the signal should be confirmed with a trend line break or completion of another technical reversal pattern. Three types of divergence are recognised, with declining levels of significance:



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A) Price at new high, oscillator at lower high (bearish). Price at new low, oscillator at higher low (bullish)
 B) Prices at double top, oscillator at lower top (bearish). Prices at double bottom, oscillator at higher low (bullish)
 C) Prices at new high, oscillator at double top (bearish). Prices at new low, oscillator at double bottom (bullish).

The most basic of momentum indicators measure the difference in price of the most recent close from a point X periods earlier. When expressed as a ratio, this is normally referred to as rate of change. However, there are problems with this measure, which stem from the volatility of the resulting indicator and the lack of an upper and lower limit to determine extremes.

Following are other commonly used momentum indicators.

Relative Strength Index (RSI)

The RSI measures the relative internal strength of a market against its own previous price action. It is based on the difference between the average of the closing prices on up days versus the average of the closing prices on down days over a given period of time. By using more values in the calculation period, the distortions and volatility of a Rate of Change indicator will be smoothed out.

The formula keeps the oscillator bounded at 0 and 100, with oversold/overbought levels usually set at 30 and 70 for the default 14-day indicator and 20 and 80 for the shorter 9-day. The shorter the time period used, the more sensitive the oscillator and the greater the wave amplitude.

The formula is:

$$100 - \left(\frac{100}{1 + RS} \right)$$

where RS is the 14-day average of up price closes divided by the 14-day average of down price closes.

Stochastic Oscillator

Stochastic is based on the principal that, within a period of strength, a market will close towards the upper bounds of the range, whereas in a down-trending market, the price will close near the bottom of the range. The most recent close is compared to the price range over a given time period.

The stochastic oscillator plots two lines, %K and %D, which fluctuate between 0 and 100.

There are two types of stochastic: fast and slow. When calculating fast,

$$\%K = \left(\frac{\text{close} - \text{lowx}}{\text{highx} - \text{lowx}} \right) \times 100$$

where lowx is the low of the past x periods, and highx is the high of the past x periods. The original default period was five days, but longer periods (up to 20 days) are also commonly used. %D = 3-day moving average of %K.

The slow stochastic is often preferred, as it smoothes the volatility of the fast indicator. When calculating slow, fast %K is dropped and fast %D becomes the new slow %K. The slow %D is then the 3-day moving average of the slow %K.

Overbought/oversold extremes can range between 70 and 90 on the upside and 10 to 30 on the downside, depending on the time period used. As with RSI, greater extremes are likely with a shorter-term indicator.

A few basic rules in a non-trending market would be to buy when %K or %D falls below

20 and then rises back above that level, or to buy when the %K line rises above the %D line. Sell when %K or %D rises above 80, then reverses below, or sell when %K falls below %D. Ordinarily %K will change direction first, but if %D is the first to turn, the change in direction is likely to be slower and more stable.

A hinge is the term used for a reduction in speed of the indicator.

MACD: Moving Average Convergence and Divergence

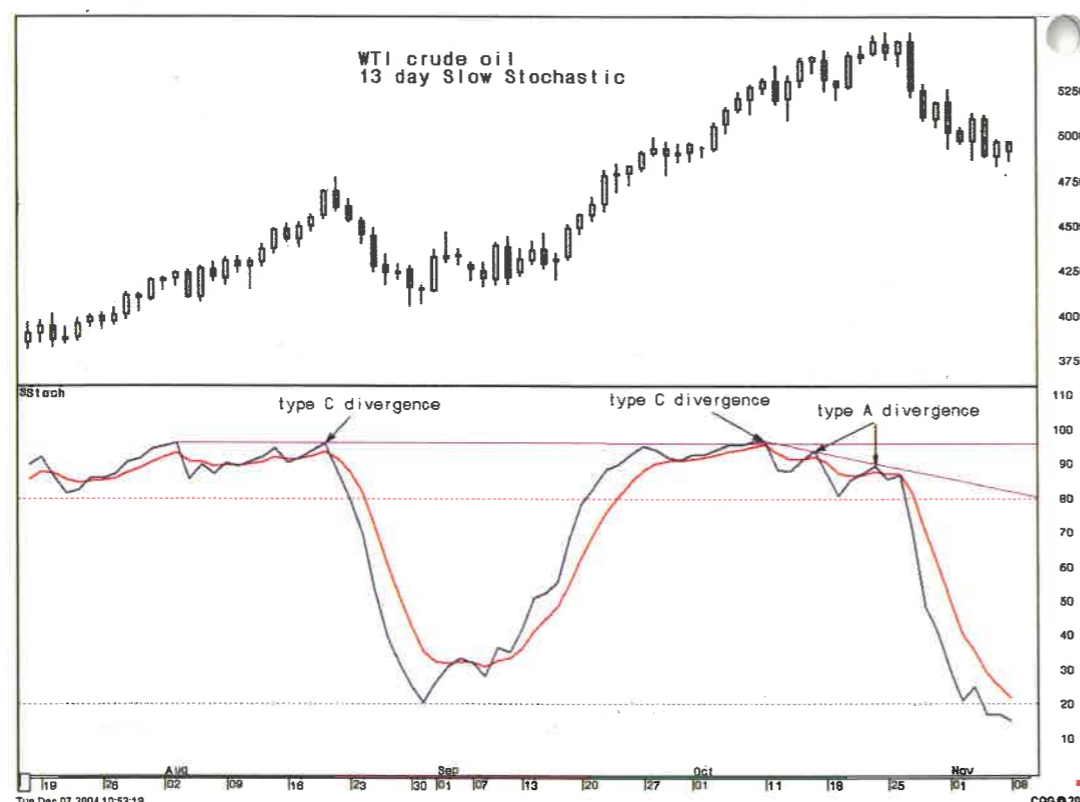
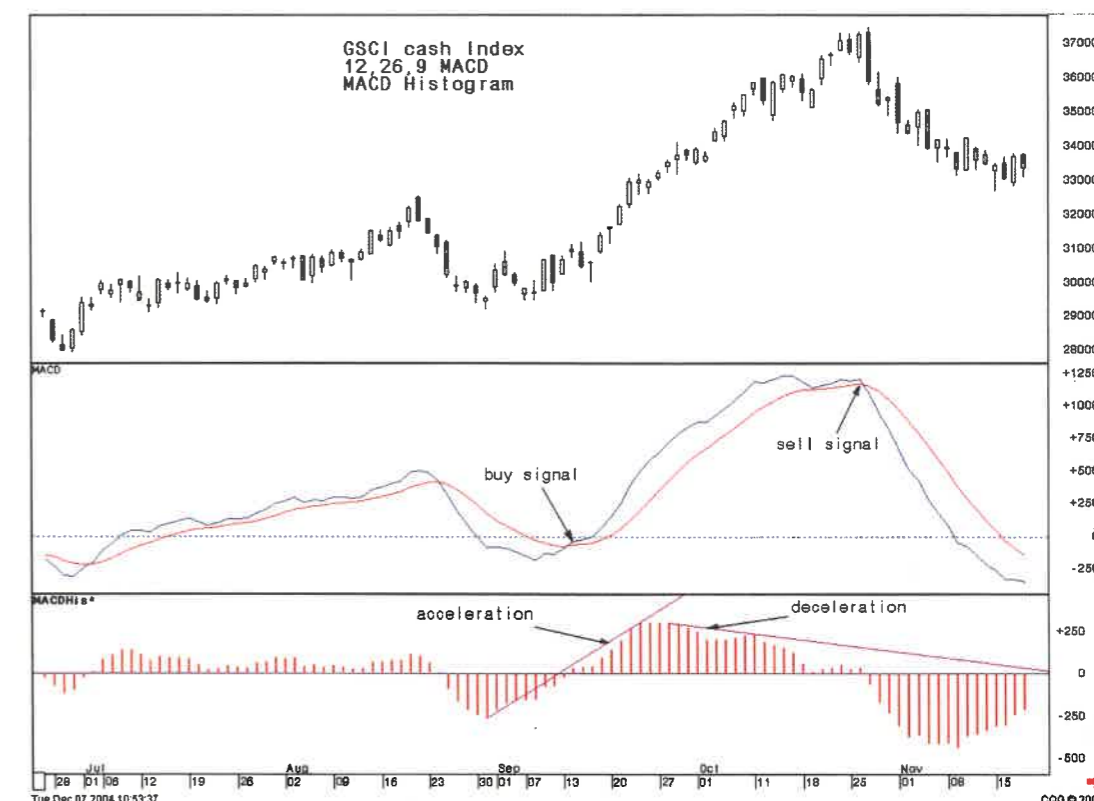
The MACD measures the difference between two exponential moving averages (EMA), a fast and a slow (defaulted to 12- and 26-day). The name derives from the tendency of the fast EMA to move towards and away from the slow EMA.

The system is most effective in widely swinging markets. A signal line or trigger is plotted as a 9-day EMA of the base MACD. A trading signal is given when the base MACD falls below or rises above its trigger line. Unlike RSI and stochastic, this oscillator is unbounded, so overbought/oversold levels need to be set individually for each market by looking at historical extremes. As with other oscillators, divergences are a potentially strong reversal signal.

A histogram can be plotted as the difference between the MACD and the signal line to show acceleration/deceleration of the trend. ■



Kevin Edgeley, CFA, is an executive director in the Global Strategy group at Goldman Sachs in London. He has worked in the City of London for 22 years, 15 of which he spent as a trader on LIFFE before joining Goldman Sachs in 1994. He is a member of the UK Society of Technical Analysts and also holds a diploma in International Technical Analysis from the IFTA. Kevin earned a BSc in Financial Economics from London University and an MSc in Finance from the London Business School.



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LBMA News

By Stewart Murray, Chief Executive, LBMA

MEMBERSHIP

Members

NM Rothschild and Sons resigned its membership on 10 December 2004.

Prudential-Bache International Ltd has changed its name and its membership to Bache Financial Ltd.

The membership of ICAP Metals has been transferred to ICAP Energy Ltd, with effect from 9 December 2004.

The membership of AIG International has been transferred to Banque AIG, with effect from 4 January 2005.

Associates

GoldAS of Turkey was admitted as an Associate on 1 January 2005.

GOOD DELIVERY LIST

Allgemeine Gold-und Silberscheideanstalt AG of Germany was transferred to the Former Silver List at the company's request on 29 November 2004.

EUROMONEY GOLD SUMMIT

The Chief Executive spoke at the Euromoney Gold Summit, held in London on 4 November, on the subject of the LBMA and its role in the London Bullion Market.

EU RETALIATORY DUTIES

Following the announcement on 25 October 2004 that the European Union would suspend the retaliatory duties on US goods (in light of the passing of legislation in the United States to repeal the Foreign Sales Corporation – Extra Territorial Income Act), it had been hoped that the duties on gold and silver bullion bars would be suspended with effect from 1 January 2005. However, it has taken longer than anticipated to introduce the EU regulation to do this. The actual date of suspension of the duties will be the date on which the official announcement of the suspension appears in the European Union's Official Journal. The LBMA is keeping its Members and Associates informed about the position.

VALUE DATES

The schedule of value dates for 2006 will be included in the trading section of the LBMA website in early January.

BULLION MARKET FORUM – MOSCOW

Copies of the Proceedings of the forum held in Moscow in early June 2004 have now been sent to all participants. They include the text of all the presentations and also the Q&A sessions. Non-participants may purchase the proceedings at a price of £200 per set.

COMMITTEES

Management

The final Management Committee of the year was held in December. As well as reviewing the work of the other Committees described below, the Management Committee approved the text of a dossier to be submitted to the European Union describing the operations of the loco-London bullion market and requesting that gold and silver bullion bars should be excluded from any retaliatory action that may be introduced in future. The Committee also agreed that this year's charitable donation should be made to the Essex Association for Spina Bifida and Hydrocephalus in commemoration of Andy Hoare's son Christopher, who passed away on 17 October at the age of 23.

Physical Committee

The Committee met in November and December. It discussed initial feedback from Good Delivery refiners about the proposed seminar on assaying of gold and silver, which the LBMA hopes to organise in 2005. Following the completion of the first round of proactive monitoring in October, the second batch of refiners (including five gold refiners and six silver refiners) was contacted in November about the monitoring operation. Three of the gold refiners elected to be

monitored using the four-nines method.

Public Affairs Committee

At its meeting in November, the Committee held initial discussions on the programme for this year's conference, which will be held in Sandton, Johannesburg, on 13-15 November. The Committee also reviewed progress in the development of a major upgrade to the LBMA website that will be launched in the first quarter of 2005.

Following the meeting, a reception was held for contributors to the *Alchemist* and the Analysts' Survey. During the reception, Kamal Naqvi, the PAC chairman, presented the winners of the 2003 price-forecasting competition for silver, platinum and palladium with their prizes.

The winners were:

Photo lower left – Neil Hawkes of CRU London (silver)

Middle – Stephen Briggs of SG CIB London (platinum)

Left – Matthew Turner of Virtual Metals London (palladium)

Howard Levine of Bear Sterns, who won the gold price forecast, was presented with his prize in December by Susanne Capano during her annual Christmas trip to New York.

The LBMA would like to acknowledge the generous donation of the prizes for the 2003 competition, in the form of four one-ounce gold bars, by Pamp SA. The winners of the 2004 competition will be announced in January, when the latest Analysts' Survey is published.

Membership Committee

The Membership Committee met for the first time in 2004 in late November. The fact that the Committee has not met since 2003 is not, however, an indication of lack of activity. Rather, this indicates that most of

the Committee's work is now done by e-mail. During the course of 2004, four Ordinary Members and ten Associates were admitted to the Association, and the Committee has also considered various requests related to changes of company names or membership.

In line with an earlier Management Committee decision that the status of Associates should be reviewed on a rolling three-year basis, the Committee agreed on the approach that should be taken to the first reviews (to be carried out in the early months of 2005) and in particular when an original

sponsor of an Associate has ceased to be active or has merged with another Member company. The status review will generally involve asking the original sponsors of an application for Associateship to reconfirm their original support for the Associate's application to join the Association.

The Committee also discussed the content of the Members' section of the website and agreed this should be expanded to provide further details to facilitate applications for Membership and Associateship.

Finally, the Committee discussed the parameters for a

new membership marketing campaign, which will be carried out by the Executive during the course of 2005.

LBMA STAFF

Andrea Smith will have to undergo major surgery in early January; this will be followed by a period of recuperation before she returns to the office. In the meantime, her work is being carried out on a temporary basis by Graham Handley. However, Andrea's e-mail address can continue to be used, though responses will normally come from Graham. ■



DIARY OF EVENTS

January 2005

16 – 23

Vicenzaoro1
Vicenza, Italy
T: +39 0444 969 111
F: +39 0444 969 000
info@vicenzafiera.it
www.vicenzafiera.it

February

1 – 4

The 7th International Exhibition and Conference:
Gold 2005 – From Deposit to Jewellery
Moscow, CIS
T: +7 095 187-8386
F: +7 095 187-9657
www.amscort.ru

2 – 4

107th National Western Mining Conference
Denver, USA
T: +1-303-575-9199
colomine@coloradominig.org
www.coloradominig.org

8 – 10

10th Annual Investing in African Mining Conference
Indaba 2005
Cape Town, South Africa
T: +1 (305) 669-1963
F: +1 (305) 669-7350
iiconf@iiconf.com
www.iiconf.com

15 – 16

CIS Metals Summit
Moscow, CIS
T: +44 (0)20-7490-3774
metals@adamsmithconferences.com
www.adamsmithconferences.com

28 February – 2 March

SME Annual Meeting and Exhibit
Salt Lake City, USA
T: +1-303-973-9550
F: +1-303-973-3845
sme@smenet.org
www.smenet.org

March

6 – 9

Prospectors and Developers Association of
Canada's
International Convention and Trade Show
Toronto, Canada
T: +1-416-362-1969
F: +1-416-362-0101
info@pdac.ca
www.pdac.ca

21 – 22

3rd Dubai City of Gold Conference
Dubai, UAE
T: +9714 2291188
F: +9714 2268883
conference@dubaicityofgold.com
www.dubaicityofgold.com

22 – 24

Asia Mining Congress 2005
Fuelling Global Demand
Singapore
T: +65-6322-2720
daniel.tan@terrapinn.com
www.terrapinn.com/2005/mining_SG/



Is the Good News for Palladium Bad News for Precious Metals?

Editorial comment by Stephen Briggs, Metals Analyst, SG Corporate & Investment Banking



The sudden emergence of palladium as a jewellery metal in its own right – as opposed to its long-standing but modest usage as an alloying element in white gold and platinum jewellery – has further complicated an already complex story of evolving consumer preferences.

Johnson Matthey has estimated that, from negligible volumes in previous years, Chinese jewellery manufacturers purchased around 500,000 oz of the metal in 2004. That roughly trebled world palladium demand for jewellery, and the total, at about 750,000 oz, was suddenly fully a third as much as platinum use, up from no more than 10% in the past. The surge in China appears to have been driven by jewellery manufacturers in response to escalating platinum prices, rather than by consumers, and it is as yet unclear how successful the experiment will prove.

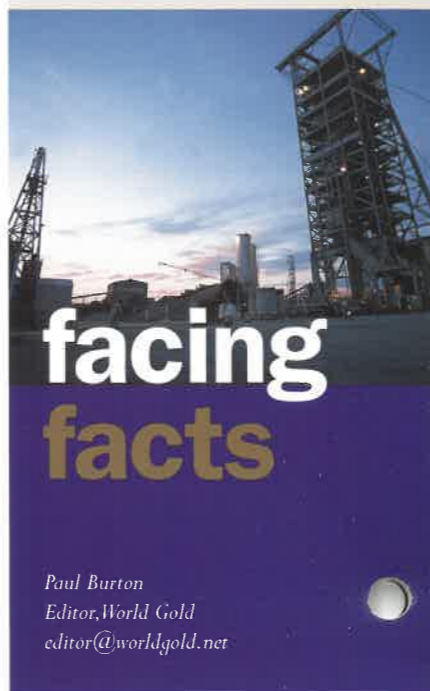
We metals analysts like to think we have our uses, but few would claim to be dedicated followers of fashion. This said, as the battle between gold, platinum and now palladium unfolds, we can make some observations about how these metals as a group have fared compared with alternatives for the consumer. (We exclude silver here because data are not readily available to distinguish between jewellery and silverware.)

It is sobering to note that the three metals' combined use worldwide for jewellery fabrication peaked as long ago as 1997, at about 110 million ounces, and that six years later it was fully 20-25% lower. In US dollar value terms, the decline over the same period was more modest, thanks to a rebound in 2003 on the back of higher (US dollar) prices, but it was still 10 to 15% lower. Developments in 2004 were more positive: we estimate combined use recovering by over 5%, and by nearly 20% in value terms. However, demand was still 15 to 20% lower than in 1997. In value terms, the total was only back at peak levels, even though the global economy had in the interim grown by over 25%.

Given gold's dominance, the above essentially describes the decline of that metal. But it also suggests that erosion at the hands of platinum and, latterly, palladium has been only a marginal factor. This is further confirmed by the fact that losses since the late 1990s have been pronounced in India, where platinum and palladium have yet to build a significant market share.

It is hard to avoid the conclusion that the precious metals have lost out to other jewellery materials and to other products. Though encouraging, it is probably too early to conclude that 2004 marked the beginning of a reversal of structural decline, and it may be that the rebound was more cyclical in nature, world economic growth having been at its strongest for at least two decades.

Returning to palladium's emergence, we would merely suggest that success might bring with it some risk of a debasing of the jewellery currency. If palladium becomes genuinely attractive because it is relatively inexpensive – and despite it being relatively light and not very shiny (potentially good news for rhodium) there are several considerably cheaper materials for jewellery fabrication. ■



Paul Burton
Editor, World Gold
editor@worldgold.net

The year 2004 ended as it began, with M&A activity proving a goldmine – potential and real – for bankers.

In early December, the Gold Fields' shareholders rejected the company's proposal to form an international subsidiary through an amalgamation with Canada's IAMGOLD. This leaves the way open for Harmony to move forward with its offer to Gold Fields shareholders without any distractions and, possibly, to complete the last merger in what has been a busy year for M&A activity, at least in value terms.

Meanwhile, the proposed Goldcorp and Wheaton River merger could finally provide Wheaton with a solution for its growth plans after its proposed merger with IAMGOLD derailed – and it then came under attack itself from Coeur d'Alene Mines earlier this year.

The failure of the formation of Gold Fields International should not be viewed as an implicit approval of the proposed Harmony deal. However, with that issue resolved, it does leave Harmony's offer to be judged on its own merits.

There are still a number of eventualities that may transpire with this deal. Perhaps the most rational would be for the two protagonists to sit down and discuss some form of cooperative venture, although from the noises coming out of the Gold Fields Parktown office, this seems remote. Given the personal acrimony between the two CEOs over the past weeks, it would be very big men who could put aside their personal differences to talk about a viable solution for shareholders.

Harmony's offer is open for some weeks yet, so there is still time for an alternative defence plan – and perhaps a competing offer from a White Knight. Meanwhile, at least one North American broker continues to recommend that Gold Fields shareholders not accept the Harmony offer due to the lack of diversification and growth.

The failure of the Gold Fields/IAMGOLD combination leaves the Canadian licking its wounds, and we may see a return to fundamentals and exploration on the part of this company and the industry generally.

Money Down a Hole: The Right Way – and Another Way

Just imagine how many metres could have been drilled with the money now wasted in planning or defending corporate manoeuvres.

Last year IAMGOLD's exploration budget was \$5.5 million. In the first nine months of 2004, the company reported \$9.5 million in corporate transaction costs!

The advising banks and the corporate lawyers are the only ones to have gained anything out of the fruitless exercise so far.

Hopefully these portfolio-building exercises will become a thing of the past. Clearly for Harmony and Wheaton – two of the most aggressive asset acquirers over recent years – buying companies is an integral part of their business strategies.

But the rest of the producers have shown recently that they are more interested in building value by investing in the ground. The industry seems to be at a turning point where the urgency of M&A activity to secure known resources is giving way to the imperative of actually broadening the known resource base again.

It is unknown resources that must now become the focus of the industry's attention.

That is not an easy task. In mature regions such as the US, Canada and Australia, the obvious deposits have been found and the easy orebodies have been worked.

But there exists the potential at depth in all three countries, as many companies are proving. The exploration activity in Nevada and the area around Red Lake at the moment is particularly frenetic. South America, Mexico and parts of Africa are also drawing explorers in droves.

The environment for gold exploration is much healthier than it has been for many years, with Canada and China, along with parts of South America and West Africa, attracting most of the exploration dollars.

New frontiers are opening up in regions such as the FSU and China, where modern exploration techniques may open up brand new goldfields. For example, although the obvious deposits may have been found in China, often a lack of capital or consolidated planning may have

meant that exploitation has been sub-optimal.

Many of the more difficult and complex deposits have not been worked in these regions. This suggests that modern technology could have a significant role to play in exploration and development. But because of the inherent lag associated with putting exploration money into the ground and getting some back again, it will undoubtedly still be some years before any new discoveries are ready to pour gold.

The Inventory Pipeline

There is a documented pipeline of projects at various stages of development around the world. Some of the biggest are shown in the table, though it is unlikely that all will make it through to production.

Top ten projects by reserves

Project	Moz
Telfer	18.4
Pascua-Lama	16.9
Kloof (KEA + EBA)	14.7
Vasilkovskoye	11.9
Veladero	11.1
Boddington Expansion	10.8
Rosia Montana	10.6
Las Cristinas	10.2
Brisas	9.1
Moab Phase I	8.4

With the recovery in the gold price, old projects are being dusted off as their economic merit improves, and these known projects will provide some reserves and production in the short to medium term.

Two years ago, a report out of Toronto forecast a decline in global production levels after 2007. The gold price in US dollar terms was some \$150/oz lower than it is now, so a decline is likely to be staved off, but not for long. The industry needs major new finds to replenish the inventory pipeline.

It is significant – and worrying – that many of the elite deposits were discovered back in the 1970s, and many others are remnants of the 1990s exploration boom. The newest discoveries are Cortez Hills and Alto Chicama.

What is needed to reinvigorate the industry are some more major finds, though such discoveries are to date rare. Moreover, the longer the search goes on for major new discoveries without success, the greater the pressure on the majors. Finding six or seven Moz each year is not going to be easy year after year.

But the producers, with the juniors often acting as the vanguard, are now investing money back into the ground, and not into the pockets of the banks. And that's a sensible way to kick off another year. ■



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