

In this issue

•State of Gold

by Mark Rachovides & Jean-Patrick Marquet
page 3

•Trends in Risk Management for Gold Producers

by Harriet Hunnabell
page 7

•The Golden Day

by Tomasz Nadrowski &
Frederic Panizzutti
page 11

•Solid Gold Rate Cuts

by David Gulley
page 15

•Portfolio Risk Management

by Robert Weinberg
page 21

•Success is Simple

by David Stevens
& Marc Wall
page 23

•Editorial Comment

by Kamal Naqvi
page 26

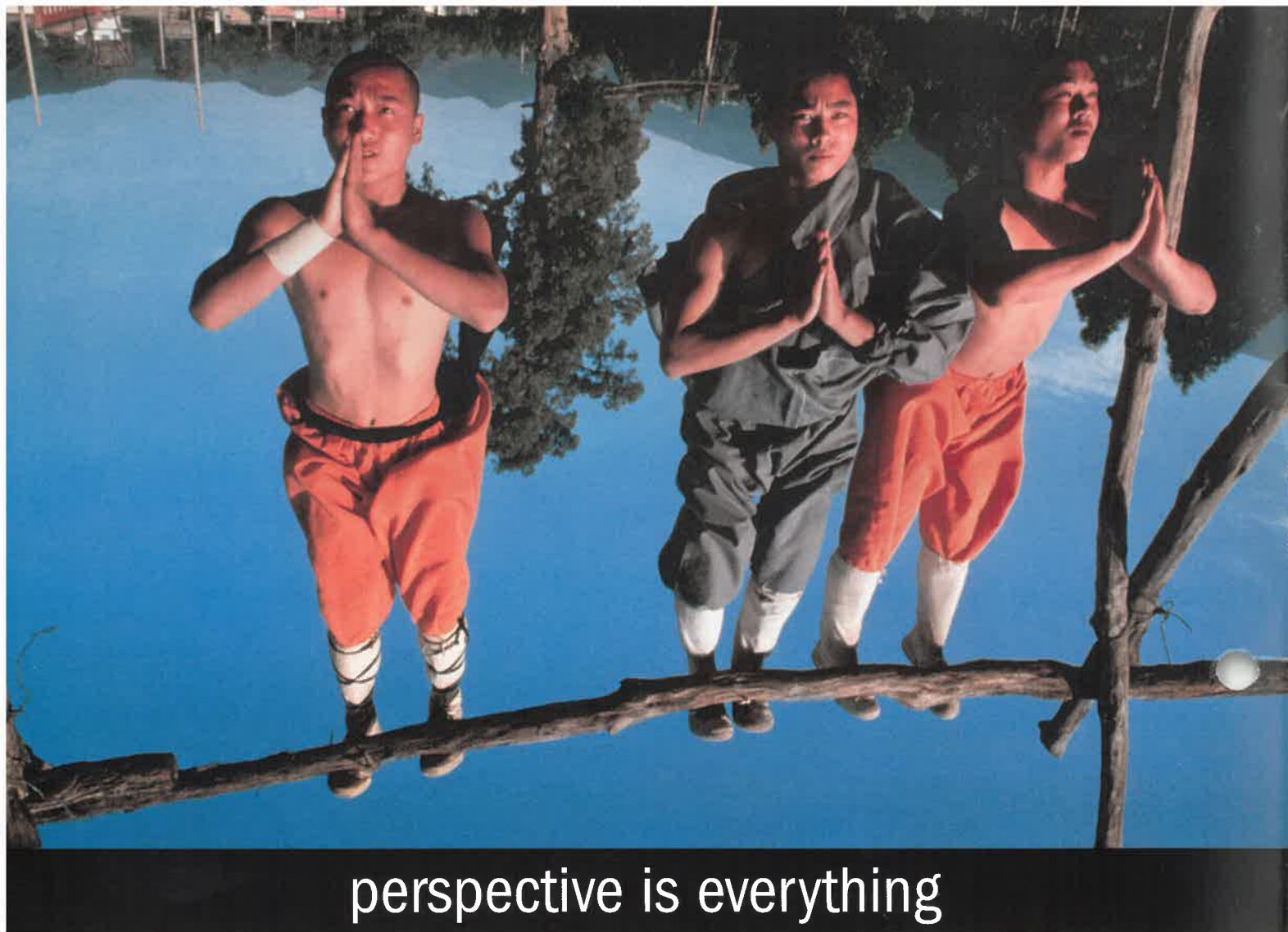
•Facing Facts

by Paul Burton
page 27



Masters of spin

Dervishes whirl in Istanbul, their dance symbolising the movements of the planets around the sun. The LBMA is holding its Precious Metals Conference 2001 on 21 & 22 May at the Conrad International, Istanbul.



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State of Gold

Financing Mining Projects in the Former Soviet Union

By Mark Rachovides and Jean Patrick Marquet, Principal Bankers, Natural Resources Team, EBRD

Since the collapse of the Soviet Union, there has been surprisingly little successful foreign investment and involvement in mining in Russia. Russia is one of the largest countries in the world and one of its greatest stores of natural resources; it is also still one of the largest producers of gold – over 120 tonnes per annum. Around 85% of all gold ever produced there has come from alluvial deposits, compared to 10% in the rest of the world. The implication is that there are still substantial hard-rock sources yet to be mined.

There is no shortage of good-quality and detailed geological data in Russia, but there is only a short history of mining for profit.



The largest single foreign investor in Russia, its natural resources and in gold mining in the Former Soviet Union (FSU) as a whole has been the European Bank for Reconstruction and Development (EBRD) (see box page 5). Commitments to gold mining in the FSU to date have exceeded US\$300 million, of which the Bank has invested over US\$100 million in Russia. These figures may sound impressive, but when compared to EBRD's investments in oil and gas (over US\$1.5 billion), they prove quite limited. The reason is a shortage of mining projects of substance since, to be blunt, exploration and development of new mining resources has been insufficient to offset the depletion of reserves in production.

Why are foreign investors reluctant to become involved? Generally the main reasons cited are the uncertainty of the legal framework in Russia, the punitive and complicated tax system and corruption. While these difficulties have doubtless deterred many, there have been exceptions, most notably the Kubaka gold mine in Magadan developed by Kinross Gold (after absorbing Amax Gold), which had the benefit of EBRD and OPIC finance.

EBRD has also provided finance and hedging facilities for the Buryatzoloto project in Buryatia through a Russian company in which the Canadian company High River Gold has a 23% interest. This is now a successful 100,000oz per annum producer. More recently, the EBRD, together with a consortium of Russian banks, pre-financed seasonal placer gold mining and the IFC, along with international project finance banks, granted a US\$10 million facility to Bema Gold for the completion of the Julietta mine in Magadan. Another recent development is the announcement by Celtic Resources that it is to proceed with the first phase of the



Photographs taken at the Kubaka mine, courtesy of Kinross Gold Corporation



development of the Nezhdaninskoye gold deposit in Yakutia with a US\$7 million credit from Russia's Zenit Bank.

The Regulatory Environment

Precious metals projects face the additional obstacle of a regulatory framework that has not yet experienced the international scrutiny and pressure to reform that the Russian oil and gas industry has seen.

Due to the importance of the precious metals industry for the state and the historical state monopoly in this area, the government's involvement continues to be very significant. Development of mineral resources may be carried out only after having obtained a license from the Ministry of Natural Resources. Licenses for new deposits are issued on the basis of a tender or auction.

Environmental problems pose particular risks in Russia for two principal reasons. First, Russian mining practices have historically been undertaken with little thought to protecting the environment with – often – serious consequences. Second, the government has granted far-reaching enforcement powers to authorities, which potentially threaten even the cleanest operation. Although so far environmental protection authorities have not exercised their powers to their fullest apparent extent, legal actions available include suspending operations until environmental violations are cured and ordering the suspension of financing.

Apart from liability issues, mining developers must also cope with an environmental regulatory and approval process to begin operations. Each project is subject to an audit process, which reviews detailed feasibility studies and environmental impact assessments, approves initial design and monitors subsequent operations. While this is standard practice worldwide, Russian environmental and safety standards often differ substantially from generally accepted international standards.

One of the problems in doing business in Russia is that there are comprehensive and time-consuming laws and regulations concerning currency controls. In short the

record of this regulatory regime for mining projects is one of extensive documentary requirements and record keeping – with the associated costs they have brought.



Currency regulations stipulate that a percentage of gold sales must be received in roubles. This can be as high as 75%. Projects are therefore encouraged to source more and more goods locally, well beyond the usual local currencies used to pay for local taxes, labour and fuel. Of course unless payments are closely married this can entail both a currency devaluation risk and a Russian bank bankruptcy risk. Also given the limited liquidity of most local goods suppliers, this gives rise to a substantial risk of delivery after downpayments have been made to pre-finance the purchase of such goods.

Risks Involved in Selling Gold

The few foreign producers that operate in Russia normally sell their gold and silver to Gokhran, the state's buying agent. Gokhran usually charges a 1% discount from the world price, and is able to pay producers before the metal is transferred to it, thus reducing the risk to the producer. Gokhran is usually very willing to take delivery of gold bullion from Russian refineries, preferably close to Moscow. Unfortunately Gokhran does not always have enough funding to buy all of the gold that producers have for sale. When this is the case, producers have to find other places to sell.

Production Sharing Agreements (PSAs)

Production sharing agreements, or PSAs, could help Russia substantially increase gold production. They can provide more stable future cash flows and a predictable tax regime for projects. They define costs and contributions and can link profit sharing to project profitability.

PSAs are essentially complex contracts between a foreign investor and the Russian state at both the federal and local levels. Their major advantage is the investor's ability to negotiate all major terms and conditions for future investment, including mining and production, as well as legal terms such as the ownership of production, sales and export quotas. The PSA provides stability as the legal environment existing at the time it is signed is guaranteed to last throughout the lifetime of the agreement.

An investor can thus, by proper due diligence and thorough negotiations, minimise the effect of all potential problems that may affect the mining project and determine a satisfactory mechanism for settling unforeseen difficulties.

The PSA regime is still under revision by the government. In the past, companies received seemingly contradictory advice on whether a project should have a production sharing agreement. Yet, PSAs require passage by the Duma and they are therefore difficult to obtain. The difficulties surrounding the evolution of the Kuranakh project in the Saha Republic are relatively well known. Also though PSAs are subject to profits, taxation and therefore exempt from all "other" taxes, the definition of "other" is not clear.

One alternative is to sell gold to the central bank. The central bank discounts gold by 2% plus whatever the prevailing export tax is (currently running at 5%). Like Gokhran, the central bank can take delivery at Russian refineries. Sales to the central bank usually involve using a Russian bank as agent. Simultaneous transfer of funds and metal can hopefully reduce risk. The major disadvantage of this method, however, is that the central bank pays 100% of the proceeds in roubles into a Russian bank account. Clearly this cannot be satisfactory if the project has substantial hard currency debt obligations. Some local governments (e.g. Magadan) have the right of first refusal on local gold production but, predictably, the lack of budget resources generally renders this right useless. Another alternative is to export gold. This carries a cost of 5% export tax plus whatever

transportation costs are involved in getting the gold out to a location agreed with the buyer, usually a Western European city airport. In order to export gold, bullion mines must use a Russian bank as an agent. So far there is no evidence of discounts because of the quality of the gold exported. One major advantage of exporting gold is that the buyer pays 100% hard currency directly to the mine. The mine then must convert a percentage of those proceeds into roubles.

A slightly different mechanism that has been employed by High River Gold is to draw down project financing in the form of an EBRD gold loan. This accomplishes several things. It provides up-front cash for project development and mitigates political risk through the comfort of EBRD's involvement; it hedges the gold price (as the gold lent is initially sold at a spot price at the start of the loan and repaid later with gold production) and it avoids the necessity of selling gold, as it can be delivered to the project lenders directly.

Financing and Security

Russia continues to pose significant investment risks due to political, economic and legislative instability. To date these risks have made strictly private, long-term financing prohibitively expensive or impossible to obtain, leaving multilateral financial institutions and export credit agencies as the principal sources for medium- and long-term finance.

Any cross-border financing for a Russian project requires a huge investment of time and resources. Multilateral financings have typically taken at least a year between commencement of negotiations and funding.

The key components of a project financing in the sector have usually included: an effective off-take arrangement that limits risks associated with the government's gold purchasing rights, an offshore payment mechanism and pledge of all offshore accounts, political risk insurance (in the absence of a multilateral lender) and a completion guarantee from a creditworthy foreign sponsor.



Lenders will require that loan proceeds and project revenue flow through a series of offshore accounts that are pledged to a collateral agent as security. The offshore account structure is a primary source of security to lenders and thus is heavily scrutinised. In addition to serving as security, these accounts act to clear loan and sales proceeds and help mitigate both country and project risks.

Russian commercial banks have increased their activities in the sector since 1999. Perhaps the best-known example of this is Celtic Resources' financing of its Nezhdaninskoye project in Yakutia, but perhaps more significant is the provision of working capital facilities to artels or local combinats (workers' cooperatives) by Zenit, Lanta and other banks.

Polyus, the largest producer in Russia today, is such a combinat, Polyus, with approximately 16 tonnes of gold per annum. Though little information reaches Western financial markets on such Russian producers, there is evidence that industrial groups are becoming increasingly active in the sector.

Validity Of Tenure

The Dukat and Sukhoi Log projects are the best known examples of serious difficulties associated with the privatisation of Russian mining enterprises. Russian Law requires that:

- The privatisation not be restricted
- Relevant state approvals be obtained (and there can be very many)
- Detailed and often unclear regulations be followed
- There be a proper evaluation and publication of information
- The enterprise to be privatised be properly established.

In short, detailed legal due diligence is very expensive but absolutely necessary.

Security

In practice it is very difficult to take effective security over bank balances in Russia. It is not possible to take security over mining licences

or business interruption insurance cover. The straightforward solution is to limit the third-party debt of any project. Enforcement by secured creditors is difficult and essentially always requires court orders, which are costly and time-consuming.

Russian companies must take insurance cover with Russian insurers. Re-insurance makes obvious sense, but assignments for security purposes require (at the very least) central bank approval. Enforceability as security is also not guaranteed.

Offshore insurance cover will be expensive and time-consuming, as offshore and local policies will have to be co-ordinated to be effective.

Looking Toward the Future

Gold mining everywhere in the world is subject to risks. These include technical risk, gold price risk, labour risk, supply risk and other production risks. Gold mining in Russia is subject to all these traditional risks – and more.

There is an uncertain gold sales regime, uncertain currency conversion rights and political and legal frameworks that remain unpredictable. It is admittedly possible to purchase political risk insurance, but the weight carried by a strong partner like EBRD,

The European Bank for Reconstruction and Development (EBRD)

was established in 1991 in response to major changes in the political and economic climate in Central and Eastern Europe. It was created to support the development of market economies in the region following the widespread collapse of communist regimes.

The EBRD is an international institution with 61 members and associated members (59 countries plus the European Union and the European Investment Bank) and is based in London. The EBRD finances projects in both the private and public sectors, providing direct funding for financial institutions, infrastructure, industry and commerce. Its investments also help develop skills, improve the efficiency of markets and strengthen the institutions that support these markets.

The main forms of EBRD financing are loans, equity investments and guarantees. One of the strengths of the EBRD is its in-depth knowledge of its region of operations. As the largest foreign investor in the region's private sector, the EBRD is aware of the problems and the potential of each of its 27 countries of operations.

MIGA (The Multilateral Investment Guarantee Agency) or one of the multilateral agencies with influence in Moscow is much more valuable in the Russian business environment.

Currency devaluation effects can be mitigated through careful management of rouble balances with help from commercial banks active in Russia. Gold sales can be a constant, shipment-by-shipment exercise, although they will probably never be as simple and straightforward as they are in North America. All these risks are mitigated at a cost either in dollars spent or in the amount of time that must be continuously devoted to navigating each problem as it arises.

In several cases, initial exploration and start-up phases of Russian projects have been

facilitated and financed by entrepreneurial junior mining companies who do not have access to traditional bank finance. Properties so developed can become attractive to larger companies, which would seem to accord with the current process of consolidation within the industry as a whole. In front of Russia's difficult and changing risks, working with EBRD can go some way to mitigating those risks. EBRD's local experience, knowledge and standing may also be able to assist in assessing whether local partners are trustworthy and capable.

Russia is the world fifth largest producer of gold and output is increasing, although only 16 of Russia's 500 gold mines produce over one tonne per year. Major production

increases can only lie in the development of hard rock mining. With Russian banks providing an increasing depth of domestic support, a strengthening Rouble and grounds for optimism in the legal environment, the climate for foreign investment may yet improve. ■



Jean-Patrick Marquet joined the EBRD in January 2001 from Crédit Lyonnais, where he had spent seven years as a project financier dealing with various industries including property and infrastructure, power generation and above all mining and metals. Jean-Patrick has been involved over the last five years in a number of transactions world-wide for both precious and base metals and most notably arranged project financing for the Svalco aluminium smelter in Slovakia and the Comisua hot briquetted iron plant in Venezuela.



Mark Rachovides is currently working on a variety of oil and gas and mining projects in the Former Soviet Union (FSU) and Eastern Europe. He leads the EBRD's financing of two major FSU gold projects, both syndicated to commercial banks: the Kubaka Project in Russia and the Zarafshan-Newmont project in Uzbekistan. He has also written articles and made presentations on Russian gold mining. He has sixteen years' experience in commercial banking, including five years with EBRD.

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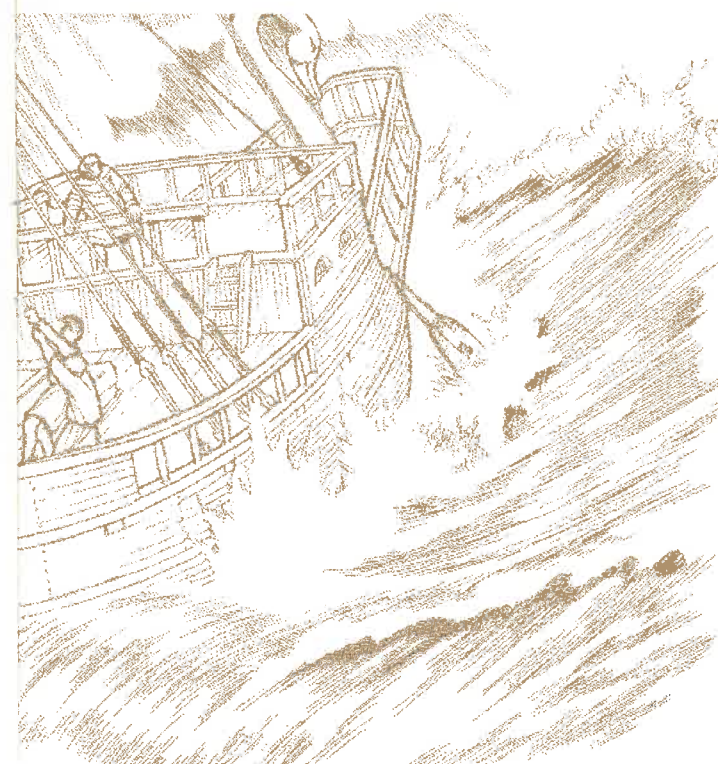
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Trends in Risk Management for Gold Producers

By Harriet Hunnable, International Business Development Manager, Standard Risk and Treasury Management

The storm of extreme gold market conditions that struck in September 1999 caught many producers and bullion banks unprepared. As the storm abated, the next twelve months were spent either fire fighting or cutting back hedge positions, toxic or otherwise. Eighteen months later the Gold Survey 2001 published by Gold Fields Mineral Services Ltd. (GFMS), points out that despite producer buy backs and withdrawal from hedging during much of 2000, overall the current size of hedge books is almost the same as it was at the end of 1999. What the raw numbers do not reflect is the corporate and portfolio changes that have been put in place over the period.



Both producers who had hedged against adverse gold price movements and those who had not realised that they were achieving disappointing financial results and share price performance. In addition, specific lessons were drawn from companies which had sailed close to the wind and were almost overturned by the extreme market conditions in the fourth quarter of 1999.

Since poor conditions seem set to continue, many have taken further precautions, but we cannot say that all gold producers are well prepared for more market turbulence.

Emphasis on Good Corporate Governance

In our business in South Africa and elsewhere, we have noted a greater awareness amongst a wide range of companies of the principles of good corporate governance, which in general are being applied. This is more than a cosmetic exercise – we can see it in the workings of company audit and risk management committees and in the appointment of more independent directors with sufficient expertise to critically review the treasury division on an ongoing basis (usually reporting to the risk management committee).

In the past, there were instances where the treasury was a law unto itself or where treasurers acted outside a loosely agreed mandate. We increasingly now see that treasurers and boards simply do not feel comfortable without a properly defined treasury mandate. The mandate is approved by the board and usually sets out in general terms the role and objectives of the treasury division. This trend is more than just a reaction to bad practice – it demonstrates that the task of risk management is a corporate-level responsibility.

We have detected much less emphasis for the treasury to be a profit centre – instead, the focus has shifted to more efficient cash flow management and control of market risks. More restrictive treasury and hedging policies have been implemented. Boards of companies have become wary of proprietary or incentivised trading activity. A by-product of this trend is that it has become more difficult for companies to remunerate and retain good people.

Companies have by and large consolidated the exposures of wholly-owned mines, driven by both the efficiencies of a combined book and the higher credit charge imposed by banks on individual mines.

Risk Aversion

Producers today are more risk averse, resulting in a significant fall in the volume of exotic products and complex structures transacted. This is not simply because gold producers are rejecting them out of some irrational fear, but rather that they now try to evaluate proposals better

and are more aware of the risk/reward ratio. Producers do not want to enter into very complex transactions where they cannot easily price the products themselves or obtain independent pricing, and where spreads are wide and there is insufficient liquidity if they wish to restructure at some stage.

Despite the general risk aversion, only a few companies have tried to analyse the role risk management should play – within organisations – in great depth. Few have decisively opted for pure risk mitigation or for a more strategic risk-taking strategic role. And there are instances where risk mitigation and profit motivations have been combined (and sometimes confused) in corporate hedging programmes or where decisions have been influenced by more subjective market-oriented considerations and objective risk management criteria were put to one side. There are still occasions when strategic (risk taking) positions are put on and treasuries do not have a robust framework of stop-loss and Value-At-Risk limits to manage them.

Hedging

Of course, gold producers cannot control the international price of gold. The disappointing results of last year's hedging standoff have led many companies to take a *less emotive view of hedging*. More companies are now guided by their strategic financial and operational parameters and the specific objectives of key corporate stakeholders. The public statements that several companies made last year claiming that they would not add to their hedge books do not preclude them from doing so now. Indeed Placer Dome has reviewed its strategy for 2001 and Rex McLennan, Executive Vice-President and CFO, recently announced: "Our forward sales program remains an integral component of our financial strategy".

The GFMS Gold Survey 2001 estimates that net producer outstanding positions did contract slightly in 2000 [graph –fig. 42 GFMS]. *At Standard Risk and Treasury Management (SRTMS) we believe that the drop in hedging during the first three quarters of 2000 was not the start of a trend*, and that producers will hedge when they feel it is necessary.

Since the beginning of this year, the majority of large gold hedge transactions have been driven by project debt financing. Given the current low gold price and cost/difficulties in raising funds from equity or bond markets, we anticipate that this trend will continue for less robust companies.

Not enough companies have an accurate estimation of the true cost of transaction spreads and embedded credit and administration charges. The gold contango is generally argued to make hedging economic, but longer dated transactions involve greater costs and these are not transparent to less-sophisticated risk managers.

Producers want to be able to *participate* if the gold price rallies: they still feel the need to give investors some blue sky. Jamie Sokalsky, Senior Vice President and CFO of Barrick stated in February this year, "We offer investors a minimum floor price for the gold we produce, with the flexibility to participate in rising gold prices".

There needs to be a direct relationship between the company's market risk strategy, its broader financial strategy and the overall corporate strategy. Too often this is not in place and we see treasuries struggling to get Board approval in time to take advantage of market conditions.

Producers are keen to address the concerns of shareholders and potential investors. They have to contend with negative and contrary perceptions ranging from the view that commodities are high risk to the view that gold hedging destroys value. Companies need to communicate better to investors the connection between their market

risk management strategy and other aspects of the their financial/corporate strategy. Financial disclosure alone cannot do this.

Only a few producers have been able to transform their market risk management capability into a core value proposition to investors.

Overall we see a better correlation between the level of protection and production risk. Spot deferred contracts can help producers to manage this risk. However, the events of 1999 demonstrated the exposure many companies had to margin calls by bullion banks. Consequently, several producers have moved to unmargined lines or to reduce the level of commitments (that make mark to markets volatile).

In the past more attention was given to US dollar gold price exposures and not enough was given to interest rate and currency risks. With the low US dollar gold price and volatile foreign exchange markets, we have seen some producers – predominately involving Australian dollar and South African rand – place a much greater focus on local currency risk.

Accounting standards

The US accounting standard on derivatives, FAS133, has led to a more disciplined execution of hedge transactions to make their bona fide hedge status apparent. Because of their profit-making intent, strategic positions are taken directly to the profit and loss account on a mark-to-market basis. FAS133 has also contributed to a more critical approach towards exotics even among producers who do not report on a US basis. It has in addition affected the decision to transact and the amounts and instruments used. But there is still some confusion about the practical application of the new accounting standard and there is no consistent or concerted industry response as yet.

Outsourcing

A large number of African mining companies have now outsourced all or part of their treasury function – a number of these form an important part of SRTMS's client base.

Does outsourcing mark the start of a trend – or is it just a regional phenomenon? These gold producers have decided that the treasury operation is not a core competency and are motivated both by the ability to reduce and manage costs better and the need to access world-class systems and expertise. There is an acute skills shortage in South Africa, and this has affected the mining industry. However, the problems of retaining staff and properly resourcing the treasury and risk-management areas affect the industry globally – all the more so when revenues are under pressure and market risks continue to be high. In a recent non-industry-specific article, Timothy Smith of the Amega Group says that "outsourcing the finance or accounting function is the fastest growing outsourcing trend". This trend is now evident in the gold sector, and we are of the opinion that it will become more commonplace.

Technology – No Single Solution

We have not seen a trend towards the adoption of any single technology provider for gold treasury risk measurement. There is a wide range of tools on the market and a few adequate in-house systems as well. Despite this, we note that producers continue to experience costly time delays with modifications to new systems and that the implementation of systems and the inputting of new or exotic products continue to be problematic. But the real problem is that even the most sophisticated risk calculation tool is just a box – and consequently useless without the human expertise needed for interpretation. The true value comes from the understanding of inputs and the interpretation of outputs.

In today's markets the obsolescence factor for risk calculation tools and methodology is high but the searing events of 1999-2000 taught gold producers that it is critical to be well resourced in terms of technology and expertise. The banks are the leaders in this area but the mark-to-market reports and other data they issue to clients are insufficient to enable proactive risk management. Producers do need their own accurate data or access to an independent reliable source focused on their requirements.

A number of dot.com companies have tried to sell Internet risk measurement tools to the commodities sector, but we have seen little take up by large- or medium-sized gold producers. Companies are reluctant to download sensitive financial transaction details or to trust the accuracy of the analysis.

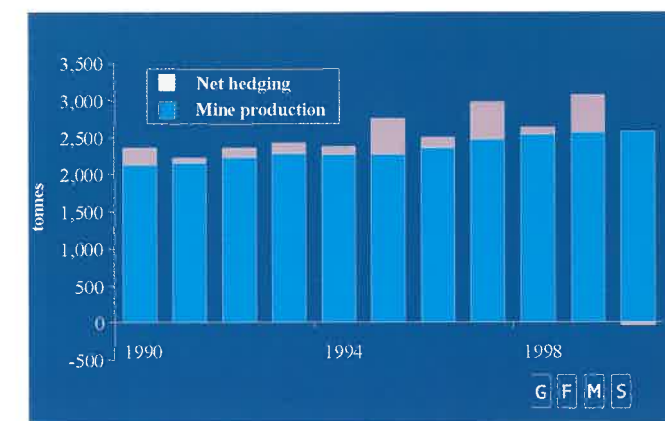
Conventional Reports

Across the market, there has also been a realisation that conventional reports need to be analysed in greater depth. Some key limitations are:

- The overall portfolio mark to market does not reflect offsetting positions with different bank counterparties – and this can be critically misleading
- Models can significantly over- or underestimate the close-out cost of transactions, particularly when markets are volatile
- Rates inputs to modeling tools are critical to the correct pricing and analysis of sensitivities, and are not easily obtained for longer maturities
- Sensitivity analysis must matrix all the financial inputs against each other
- The availability of scenario analysis ("what if") tools and technical and financial expertise are critical when looking at the structuring of a hedge portfolio
- The sensitivity of a portfolio in different time buckets (and not just as a whole) to market movements has long been overlooked, but can be critical when analysing a portfolio and the approach to possible restructures.

Producers have had to review the liquidity and term characteristics of the gold market as these appear to have changed. Recent movements and volatility in currency interest rates and gold lease rates have highlighted the need for sophisticated risk-measurement tools that quantify the sensitivity of complex portfolios, and the complementary value that human expertise brings.

Total Supply from the Mining Industry

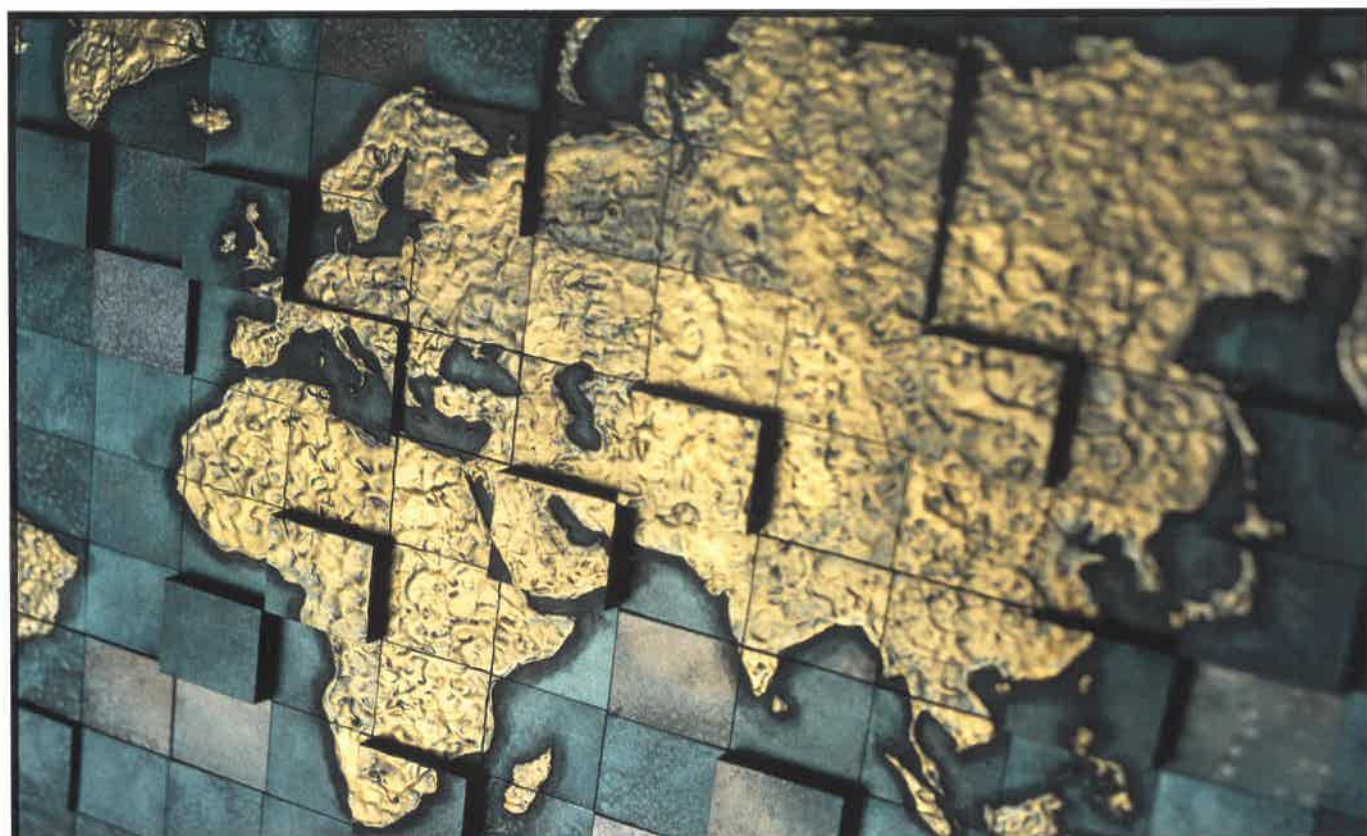


Conclusion

In this article we have identified trends in the way gold producers manage exposures to financial market risks. The opinions expressed are our own, made from our observations from our involvement with gold producers around the world. While no one single or major trend has emerged, in general we have definitely seen a significant change in the approach to risk management and in the quality of its execution. There is now a greater awareness of what risk management entails and greater importance attached to it, resulting in a number of improvements. ■



Harriet Hunnabell is International Business Development Manager for Standard Risk & Treasury Management Services (Pty) Ltd. (SRTMS). She is based in London. SRTMS provides outsourced services and consultancy in risk management and treasury to corporates, and it is now the biggest independent provider of these services to the mining sector globally. SRTMS is an International Associate member of the LBMA.



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The Golden Day

by Tomasz Nadrowski, AngloGold & Frederic Panizzutti, GoldAvenue

"It was a gloomy, rainy day. Evening news report mentioned that the country had not experienced such heavy seasonal rainfall since 1967. Luke had not had time for lunch and was running back to his office from an extended meeting. A lot of work was still waiting for him. Though he walked fast, his suit and his tie were soaked."

Back in the office, Luke switched on his desk lamp. "Three more spreadsheets to double-check", he thought. His co-workers had already gone home, but an early morning deadline was looming in Luke's mind and he preferred to finish his checking tonight.

Two hours later, he was finally able to close the dossier. He made a final routine check of his e-mail and recent share quotes. Suddenly a bright yellow box appeared on the screen: "Do Not Forget - Today Is Golden Day!" Luke suddenly felt his stomach drop. He had forgotten to buy a gift for his wife, who was probably waiting at home with a yummy steak dinner and a bottle of 1997 Amarone. A few days earlier she had hinted something about Golden Day approaching. "Damn it!" Luke muttered nervously. He realised that the yellow box must have been generated by a California-based ISP,

nine hours behind local time. "Where can I possibly find gold at 8.30 pm?" he wondered.

Still he was grateful for any reminder - the idea of arriving home without gold petrified him. He imagined his wife's Laura's embarrassment the following morning in her office, when Greg, Marina, Bob, Pamela and all her other colleagues would be proudly sporting their new pieces. Last year, he had managed to grab a limited edition 22-carat African necklace marketed by AngloGold. Such speciality items would be long gone now, but going home empty-handed was out of the question. How could he forget Golden Day?...

"Lack of a suitable occasion"¹ is the main reason given by 44% of surveyed US consumers who do not buy any gold jewellery. Recurrent efforts to "change the perception of gold" or, more recently, to re-brand gold

little is known about the needs of the consumer. The industry is preoccupied with trying to understand the basic question of "who buys it?" This has resulted in a strong body of demographic, psychographic, geographic and even technographic research. But the equally relevant question - "why do they need it?" - is not even asked.

Like many other high-involvement items - items that are generally not impulse purchases, such as diamond jewellery or automobiles - gold has several inter-related functions for the consumer. The most important are:

1. Referential function ("gold has value"). Gold today tends to be viewed in US dollar terms, so this function becomes difficult to defend when the dollar gold price is exploring historic depths.



A sales promotion at a Swiss department store, which offered drawings for gold jewellery, coins and kilo bars.

haven't taken into account the functional gap between consumers' expectations and the industry's ability to create a compelling value scheme for its product - there simply is not enough utility for gold in its form as jewellery.

Gold jewellery around the world admittedly tends to be conservative and unimaginative. Some initiatives notwithstanding, the bulk of the market is guilty of antiquated business models, caratage problems, repetitive designs, off-putting customer service and limited, if any marketing. Even worse, comparatively

2. Aesthetic function ("gold is pretty"). Beauty is in the eye of the beholder, but individual opinions can be stabilised by the norm and reinforced by institutions. Efforts to support innovative jewellery designs are on the right track. However, finding an object attractive then needs to be translated into making an actual purchase, something the industry has not focused on yet.

3. Meta-cultural function ("gold has a cultural worth"). This could reflect the



geographic region where the gold was mined, or the cultural or historical significance of the design.

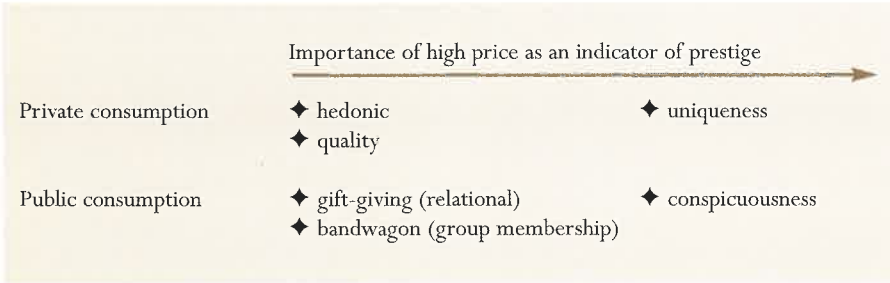
4.**Expressive function.** Gold symbolises an emotion for the person who gives it as a gift. Similarly to the conative function described below, this is a person-to-person function. The main desire is to be...desired.

5.**Conative function.** This focuses on the receiver – the gold is from somebody *for* somebody. It is an avenue hardly explored so far.

perfect by virtue of its tradition, authenticity, style, precision, comfort, craftsmanship or country of origin.

5.**Value in the product's social role.** Two types of behaviour are predominant – gift-givers, prone to following a ritual and role-playing conformists seeking social approval, imitation. This group tends to purchase a particular brand of an item. It is a bandwagon type of behaviour.

These motives are interpersonal and vary on the scale of perceived importance of price:



Campaigns promoting gold tend to concentrate on one or more of the first four functions, but neglect to tap into the conative function. Focusing on this could allow the industry to shift its attention from the product to the person who does the purchasing. There is clearly an opportunity to create a behavioural need for gold.

Several authors⁷² have analysed the different types of prestige-seeking behaviour, at least two of which are based on individual perception of a product:

1.**Value in conspicuousness.** This generally occurs in markets with a veblenian (positively sloped) demand curve – purchases increase as an item becomes more expensive, for example, as is the case in China. Consumers buy the item because it is expensive, and will show it off once they have it. Ostentation, materialism, appearance, wealth, status and power signalling are the keys here.

2.**Value in uniqueness,** snobbishness, non-conformity, distinction and exclusivity (“I am one of the few who have it”). This group is clearly difficult for the gold industry to attract.

3.**Hedonic value,** which relies on aesthetic appeal, sensor beauty and gratification. This group of buyers appreciates emotion and sentiment over functional value. Products are consumed in private.

4.**Value in quality.** These consumers need reassurance that the product is absolutely

Given the conservative dollar-gold-price predictions, it makes sense to focus on the left-hand side of the table and seek to appeal to a mix of publicly and privately self-conscious consumers. It is the former group that is of interest here.

Providing an occasion for gift purchasing should be the first obvious target. Choosing one special occasion – such as an 18th birthday celebration – for essentially private consumption would not capitalise enough on the mass culture potential. In a post-modern society, it should not be impossible to create a new occasion with a clearly commercial goal: the obligation to buy a specific item on a specific date.

Some interesting examples of recently created commercial events that have crossed cultural boundaries are listed in the table below.

Specific Date	Dominant Colour	Purchase Item	Arrival in Europe
Valentine’s Day	Red	Roses, chocolate packaged in red	~ 1980
Halloween	Orange	Pumpkin, dry plants, accessories	~ 1995
Chinese New Year	Yellow and red	Chinese food, utensils	~ 2000
Golden Day	Gold	Gold Article	Tomorrow?

Nobody “obliged” to purchase roses for the Valentine’s Day wonders how roses came to be associated with the 14th of February. He just knows he has to buy some – an example of a successful marketing ploy based on a myth. Once the myth becomes established, it no longer requires authorisation or legitimisation.

How does the myth get established? This requires a marketing campaign that focuses on the act, rather than (typical for gold) feel- or sense-marketing. Signs or images may be easily used to convey meaning and thus create an ideology, often used in propaganda wars. Roland Barthes elaborated the Saussurean signifier/signified breakdown into an operational proposal, basing it on a differentiation between direct denotation and contextually dependent connotation.



Denotative signifier:
Picture of a man giving gold earrings to a woman
Denotative sign:
Personified gold giving

Denotative signified:
Passion, emotion, “Love”

The denotative sign then becomes connotative signifier:

Connotative signifier:
Personified gold giving
Connotative sign:
Gold consumption as romantic obligation i.e.
“If I don’t give her those little earrings, she will think I don’t love her”
“If he doesn’t give me gold earrings for occasion X, he doesn’t love me”

Connotative signified:
Special occasion X

It is only possible to equate romantic obligation with a commercial proposition if the consumer feels strongly that he or she has an opportunity to express an emotion by buying something. It requires an imaginative campaign to disguise the fact that the process entails a purely commercial obligation to acquire a specific range of items on a specific day.

It is difficult to select the right occasion for such a campaign. Should it be a brand-new event? This probably constitutes the costliest proposition, but one which, once established for some years, may indeed give a forgetful executive a few headaches. Or should the industry concentrate on tying gold purchases into pre-existing events such as Mother’s Day – already heavily emotional, but without an allocated colour or specific gift? A third option might be to transplant a holiday – such as a gold-heavy Indian festival – into the Western world, taking advantage of the openness of today’s consumer to new cultural influences. However, the idea of organising Divali in Manhattan would probably raise a few eyebrows among even the most radical marketing advocates in the industry.

Whichever option is chosen, the results may not take long. It took five years for Halloween to enter non-Anglo-Saxon European markets. Chinese New Year is currently creeping into European supermarkets during the previously slow post-Christmas period. Can the gold industry afford to miss the next opportunity?

Rather than trying to understand the consumer universe in quantum details, the industry should concentrate on fostering gold-related behaviour. Enough has been spent on enticing people to perceive gold in certain ways. It is high time the industry’s attention

turned towards the need to induce consumers to actually purchase it.

Repositioning of generic advertising campaigns will avoid letting the gold industry run into the “dead zone” risk, whereby despite improvement in the quality and perception of a product, nobody feels they “must” have it.

...Luke drove home slowly, trying to think of a good excuse for his empty-handed homecoming. Laura would surely be waiting behind the door with a nice gift she had probably purchased on the GoldAvenue website weeks ago. How could he possibly enjoy the warm yellow cufflinks, or pen, or whatever she had chosen? In previous years, Golden Day was a happy family occasion. Not tonight.

The fuel gauge was nearly empty, so he decided to pull over at a service station before exiting the motorway. As he walked into the station shop, he noticed a teenager with a box hanging from his neck. The boy intoned the familiar rhyme: Gold for Golden Day, 20 to 60 Euros, gold for Golden Day! Luke felt his mood lift. “What do you have left?” he asked quickly. The teenager held up his last pair of earrings – it had been a hectic day, and his stock was nearly depleted.

Luke dumped the little box on the passenger seat and drove away relieved. He swore to himself that next year he would buy the golden gift on the Net at least one month in advance. ■

Definitions:

High-involvement products: Products for which the act of purchase implies complex decision making due to their material or perceived value.

Context-sensitive product: A product reflecting a different sense depending on the context in which it is placed.

Veblenian demand curve: Thorsten Veblen (1857-1929), a US economist and sociologist who posited the structure of the demand characteristic for many prestige goods. Contrary to the usual consumer behavior (demand falls if prices rise), the demand for such goods actually rises if the prices rise. Conspicuous consumption is one of the main drivers of such consumer behavior.

Semiotics: From Greek semeiotikos, science studying sign systems, both “natural signs” (freely occurring throughout nature) and “conventional signs” (designed for the purpose of communication).

Saussurean: Ferdinand de Saussure (1857-1913), a Geneva academic specializing in Sanskrit and linguistics. His analysis of signs has been considered one of the foundations of structuralism.

Signifier: A material aspect of a sign (graphemes, movements of vocal cords, printed picture).

Signified: The mental concept engendered by the signifier.

Denotation: A process of referring to something by means of a sign.

Connotation: An idea, or feeling which a word invokes for somebody in addition to its literal or primary meaning.

Tomasz Nadrowski, (BA, MA, MPA) was previously with Hakuodo Inc, Tokyo, Nikkei (Nihon Keizai Shimbun) and World Economic Forum, where he was responsible for China-related activities. From 1999-2000 he was a director at Basic Industries at World Economic Forum in Geneva, Switzerland. Since November 2000, he has been vice-president in charge of investor relations at AngloGold Limited. His other portfolios within AngloGold include strategic marketing and public policy initiatives.

Frederic Panizzutti began his career in the Treasury of Sandoz. He later joined Union Bank of Switzerland in foreign exchange and equities. In 1996, he joined MKS Finance Geneva, as a vice president, where he was responsible for research & strategy, concentrating on precious metals. In January 2001, he joined GoldAvenue, a partnership between AngloGold, J.P. Morgan and PAMP, where he has been appointed head of research. His other responsibilities within GoldAvenue include regional marketing and client relationships in the B2B sector.

* 1 “Global Consumer Study”, Research International, 2000.
2 An excellent overview can be found in F.Vigneron, LW.Johnson: “A Review and a Conceptual Framework of Prestige-Seeking Consumer Behavior”, Academy of Marketing Science Review, 1999.

Solid Gold Rate Cuts

David Gulley, Senior Economist, PricewaterhouseCoopers

Alan Greenspan gets on a bus in a city he doesn't know. He recognizes another passenger - a government worker who collects economic statistics.

The Fed Chairman asks him: "Can you tell me which stop to get off for Policy Street?"

"Sure thing, Mister Greenspan," comes the reply. "Just watch me carefully and get off two stops before I do."

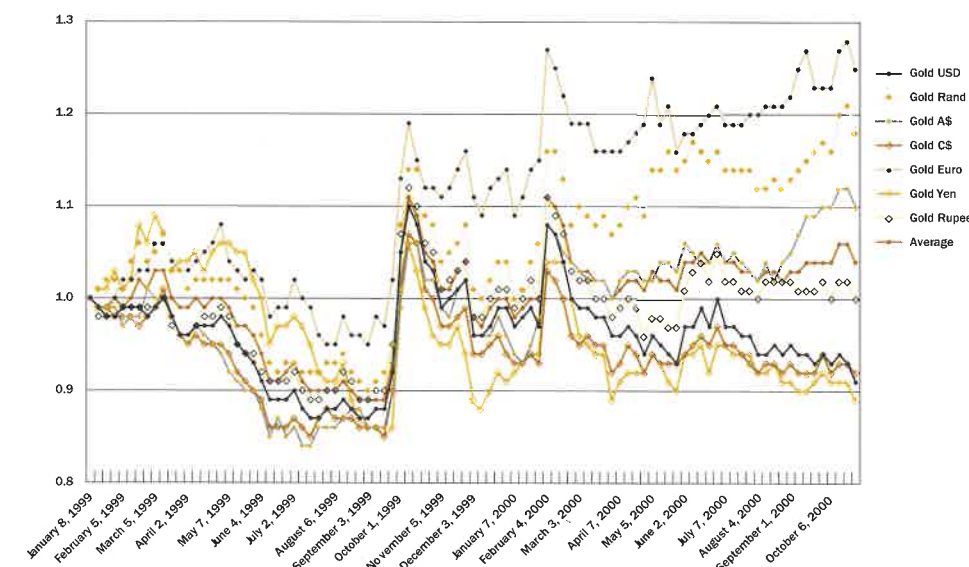
In real life, Mister Greenspan's problem is even more difficult — there are many statisticians on the bus, and they are constantly hopping on and hopping off. One day GNP is declared to be growing at a comfortable rate and consumer confidence remains high, the next day hard times are spreading from IT and manufacturing to business services. Meanwhile, once-reliable business cycle indicators seem to have lost their prognostic powers.

All this explains why economists and executives are looking at an ever-broader set of measures. They ought to keep an eye on one of the best early warning signals of the current predicament: gold. Gold is back in fashion in Vogue these days, and given the confusing flow of contradictory economic statistics lately, gold ought to be in vogue as an economic indicator as well. Most of us missed gold's signal in late 1999, when it warned of a recession ahead, and we ignore it today at our peril. According to gold, recent Fed actions might have been peachy if undertaken earlier, but they aren't nearly enough now. Until monetary conditions return to neutral, relief rallies in the stock market, such as we've seen lately, may well be doomed to fail.

Before you turn the page, muttering something about another nut fixated on the "barbarous relic", I should advise you that what Keynes had in mind, when he uttered that famous phrase in the House of Lords in 1944, was strikingly similar to the problem we face today. Then and now, gold was priced too low, because the reference currency was too strong. Then (the 1925 return to the Gold Standard Keynes was referring to) gold's artificial price was a cause of deflationary pressures. Today its market price is a signal of deflationary pressures.

To explain, let's return to the tired realm of economist jokes. Nobel Laureate Paul Samuelson once quipped the stock market is 200 per cent accurate (or words to that effect) — it had predicted six of the past three recessions. So much for the Fed relying on stock market reactions in gauging their policies. For mere mortals, the other problem with relying on a stock market plunge is that a sell-off is as much the disease as the symptom — who wants to wait that long to get a change in policy? Gold, on the other hand, was giving a decisive signal that the Fed was pursuing an overly tight monetary policy long before your kid's college fund headed south.

Equilibrium Gold Price as Suggested by Currency Average
Gold has appreciated 15% since its cyclical bottom



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The reason is that the international strength of the dollar is one of the key indicators of how tight the money supply is, relative to global demand for the currency. Unlike constructs such as M2, the Index of Leading Indicators, GNP or the CPI, exchange rates are actual contemporaneous market signals, rather than arithmetic. No indicator is perfect, and no one is suggesting that the Fed handcuff monetary policy to exchange rate movements, but international demand for the dollar must be given due regard. And despite Fed interest rate cuts, the dollar has actually appreciated this year – the US trade deficit has fallen, reducing dollar supply, while both the transaction and precautionary demand for dollars remains high overseas.

When mavens are drawn into a discussion today about whether exchange rates signal an overly tight U.S. monetary policy, they are more likely to say the strong dollar is merely “puzzling” given falling stock markets. You can respond that a strong dollar is perfectly consistent with our current economic straits if monetary policy is overly restrictive. The frequent reply is that exchange rates are ambiguous – a strong dollar may merely tell us that monetary authorities everywhere else in the world are mismanaging their own economies. This view – that Washington knows what it’s doing, but nobody else does – is always popular in the District of Columbia, but is it entirely credible?

This is where go’c becomes useful. In September 1999, central banks came together to develop a more coherent policy toward their conduct in the gold market – the selling and leasing of their own gold reserves. No one argues this was bad policy central bank policy. And it was in the aftermath of this policy development, when gold strengthened in most currencies but faltered in ever-stronger dollars, that gold signalled Fed tightening had gone too far. As the chart indicates, gold’s 1999 rally was negated in U.S. dollars terms by the inexorable rise, from strength to strength, in the US dollar. In other words, the problem lay not with the Japanese economy, the European economy, or with the gold economy (the worldwide community of gold producers, consumers, and intermediaries). The problem lay with US monetary policies.

Measurement problems are another reason to take a look at exchange rates and at gold. The most common measure of dollar strength is the trade-weighted dollar. This primarily reflects the dollar’s purchasing power against a few key currencies. Interpreting the strength of the dollar as measured on such an index immediately gets you into judgment calls about the role of other currencies. Also, the

world outside the G-7 matters greatly, yet building a meaningful dollar index for emerging markets is a difficult exercise, distorted by hyperinflation, rigged exchange rates, and sudden devaluations. Because gold is produced and consumed in many countries, ill-informed capital markets take a back seat to the judgments of a billion or so souls as to what gold is worth to them today and in the future, in their currency, given their income and savings. As the Asian financial crisis reminded us, the local citizenry’s view as to the preference of gold to holding their own currency might sometimes be better than the short-term view of the financial markets.

Unlike artificial indices, gold is a real commodity, which is bought and sold continuously in worldwide markets. It is hard to mismeasure the price of gold, though speculators can run gold up or down a few dollars from equilibrium given sentiment and trading conditions, and gold of course also obeys its own market fundamentals. Such noise from short-term speculators and the long-term trends in fundamentals can be separated from the important monetary signals. Gold is therefore a useful monetary policy indicator, driven by a real market’s processing of real transactions, not on averages of separate markets imperfectly arbitrated, and reflecting many markets worldwide, not just the most developed.

Some say gold is the dog that no longer barks, but perhaps we’ve lost the knack of listening. Gold doesn’t have to go up in price to suggest something might be out of kilter. Surreptitious gold sales out of Moscow foretold the collapse of the Soviet Union. Sudden sales of war chest gold in the Middle East now look like leading indicators of the Gulf War. For a year and a half, gold has not so much barked as whimpered. The Federal Reserve should have been listening, and financial pundits should have been reminding them to do so.

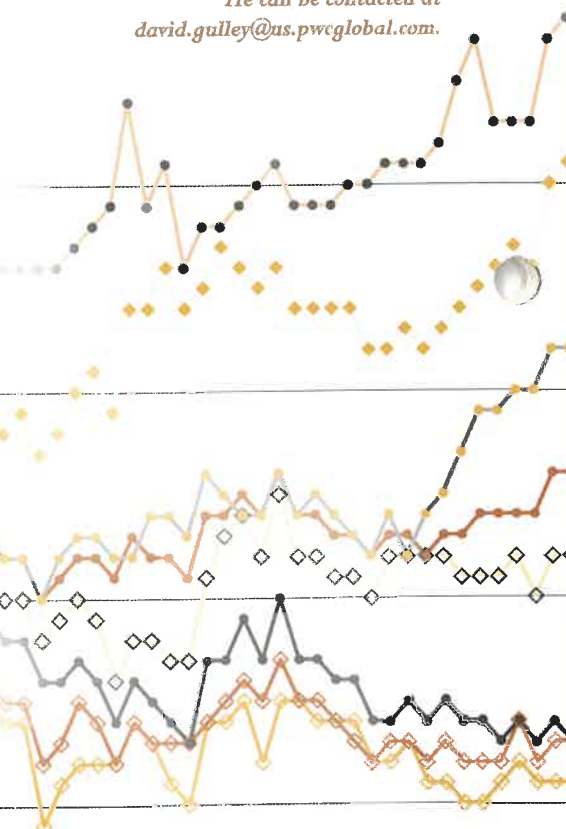
As a monetary indicator, gold should be used much as it is used in investment portfolios and adornment – sparingly, as part of a larger ensemble. This, I suspect, is precisely how Alan Greenspan will use gold, and other indicators of global money conditions. And it is why I expect to see further relaxation in monetary policy, irrespective of stock market fluctuations. It is also why I expect economic recovery to take longer than some expect. The U.S. economy would be

better off if gold were at \$300 rather than \$260 – not because of gold’s role in the economy, but because it will take more liquidity to get there. Ironically, such a move might not be beneficial to most producers, who operate in other currencies that will also rise with a falling dollar. As for the final irony – Keynes would be pleased if the Fed listened to gold this time. ■

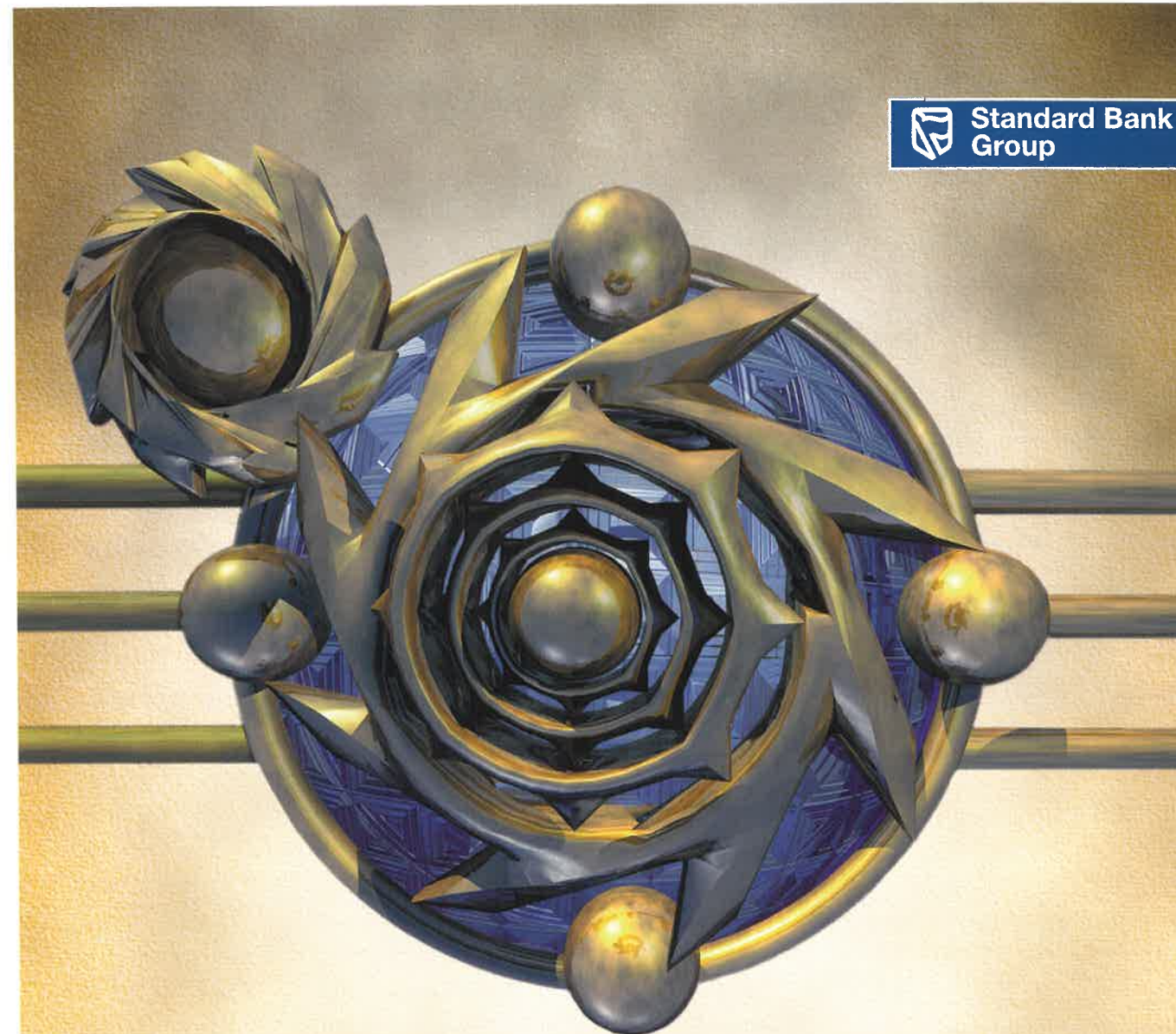


David Gulley is senior economist with PricewaterhouseCoopers in New York. He serves PwC clients worldwide in the precious metals industry on a variety of matters, ranging from market and industry conditions to specific corporate issues in finance and strategy. He is the editor of the quarterly e-journal, *Metals Market Sentiment*.

He can be contacted at david.gulley@us.pwcglobal.com.



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Market Moves

Mitchell Duggan

Mitchell has joined CSFB in Sydney to head their spot trading activities. Mitchell joins CSFB after seven years at MKS Finance in both their Sydney and Geneva offices . Prior to joining MKS, Mitchell worked at Macquarie Bank in Sydney, where he was a director responsible for Macquarie's precious and base metal trading. He is a registered CTA with the National Futures Association.

Brian Hurdal

Prior to joining CSFB's precious metals marketing effort in New York in March, Brian spent the past two years co-managing Barrick Gold Corporation's hedge book. The three years preceding his employment with Barrick, Brian worked for Royal Bank of Canada in New York. There he gained experience structuring interest rate derivative products and went on to trade and market investment-grade bond asset swaps and credit derivative products. He holds a Bachelors of Applied Science in Engineering from the University of Waterloo in Canada and is also a Chartered Financial Analyst.

Matthew Keen

Matthew will start at Dresdner Kleinwort Wasserstein London at the end of May as a director responsible for sales and distribution for commodities. He started his career at Johnson Matthey Bankers in 1982, going on to specialise in PGMs at Engelhard Metals Ltd from 1987-1991. After leaving Engelhard, he spent 10 years working for JP Morgan, where he built up their platinum business in London before moving out to Singapore to head up the commodity division in Asia-Pacific. Upon returning to London in 1996, he was given the responsibility to develop and risk manage the precious metal forward and derivative businesses. While working at JP Morgan, he served on the LPPM management committee for three terms. He is also leading a team of eight desk jockeys up the Eiger to raise a targeted £100,000 for Motor Neurone Disease Association.

Raymond Key

Raymond has joined Credit Suisse First Boston in London to trade the forward and option books. Raymond previously spent two years working for Deutsche Bank in Sydney, trading and structuring gold option and forward products. He spent the previous four years working for Bankers Trust in a similar role – but in interest rate derivatives – before moving to their currency option business for the final three years at Bankers Trust. Raymond holds a Bachelor of Commerce from Otago University in New Zealand with joint honours in Economics and Finance.

Diego Parilla

Diego joined J Aron as an executive director on 23 April. He is responsible for marketing and structuring across commodities, with primary focus on precious metals for Europe and Africa. Prior to joining J Aron, since 1998, he traded precious metals forwards and interest rate derivatives at JP Morgan. He earned a BS and MS in Mining Engineering at the Madrid School of Mines, and a joint MS in Mineral Economics at the Colorado School of Mines and the French Institute of Petroleum.

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Portfolio Risk Management *The Role of Gold*

By Robert Weinberg, Head, Institutional Investment, World Gold Council

Amid the uncertainties surrounding mainstream asset classes, risk management has become a hot topic at investment conferences. Alternative investments, by definition, skirt the constraints of rigorous benchmarking.

As a result a variety of alternative assets are being promoted as portfolio diversifiers. But buying diversifiers such as hedge funds, private equity, commodities, real estate, timber and agricultural land, fine art, put options and so on is one thing. Selling them when one needs the cash is quite another. Gold's liquidity is one of its critical investment attributes.

Investors strive to reduce the volatility or risk profile of their portfolios without diminishing their expected return. Alternatively they seek to enhance portfolio returns without increasing risk. To do this they seek poorly correlated asset classes which, being driven by different economic forces, tend not to rise and fall together. This is the essence of portfolio diversification. The trouble is that traditional diversification often fails when most needed. Research shows that the correlation and

volatility of many ostensibly poorly correlated assets tend to converge during financially unstable periods.

Gold's pre-eminent investment characteristic is its low or negative correlation with other commonly held asset classes. The more negative the correlation between the diversifier and the pre-existing portfolio the lower the overall volatility of the new portfolio leading to enhanced returns. As well as being negatively correlated with most assets, gold tends to become more volatile during periods of financial stress. This is helpful because the greater the volatility of a negatively correlated asset the more it reduces portfolio risk. In short, gold could have been designed for portfolio management. Gold is as relevant today in the 21st century as it ever has been.

The World Gold Council recently commissioned a study using new methodology that takes into account the behaviour of various asset classes during both stable (non-stress) and unstable (stress) periods. Using this approach, it is shown that even a modest allocation to gold can improve the consistency of a wide range of portfolios on the efficient frontier. In other words, portfolios that contain gold are generally more robust than those that do not.

In view of gold's investment properties it may be asked why every portfolio manager in the world has not already allocated a portfolio weighting to gold. The simple answer is that there are a number of both genuine and perceived barriers to investment. The WGC is actively seeking to lower these barriers or remove them altogether.

Foremost among them is ignorance, which can generate perceptions that are frequently wrong. This has led to indifference at best, and frequently to quite forcefully expressed negative perceptions about gold. The majority of today's fund managers blissfully ignore gold and its role as a portfolio diversifier. Bearing in mind the twenty-year downtrend in the dollar price of gold, it is

difficult not to feel a modicum of sympathy. Gold has closely tracked the decline in inflationary expectations as expressed in the yield on the US long bond. But how much longer can this trend continue before the spectre of deflation strikes?

Gold has also suffered from the extraordinary strength of equities. Stock indices have diverged dramatically above their long-term trend and, even after recent setbacks, many feel that valuations remain stretched. Some question too the likelihood of continued dollar strength. Conversely the gold price has diverged markedly beneath its long-term trend. And yet annual consumption outstrips mine production by more than 50 per cent while production is expected to fall in the medium term. Central banks, which have filled the primary supply deficit in recent years, are also unlikely to increase either their sales or lending to the market. It would be rational to expect both equities and gold to revert to their respective means. The logic of holding gold as a portfolio diversifier is increasingly compelling.

The majority of investors are unaware of the market fundamentals. Even those who have heard, for example, of what has been called the Washington Agreement on Gold (WAG) have scant understanding of its implications for the market. Prior to WAG, investors were led to fear an overwhelming tidal wave of central bank selling swamping the market. To a great extent they still do, even though that danger has receded dramatically. Neither are they aware of the dramatic downturn in gold exploration expenditure, by more than 60 per cent from 1997 to 2000, and what that implies for the future of newly mined gold supply.

There are other widely held misperceptions. For example, it is frequently said that gold is both difficult and expensive to buy. Largely because distributors have not actively sought new customers the distribution network is admittedly poor. But this is changing as bullion banks realise that their customer base is dwindling. However, the transaction costs on gold are extremely competitive, as the table on the following page shows.

Comparing the cost of dealing in equities and gold

Basis points	Equity ¹	Comment	Gold ²	Comment
Bid/offer spread	30-35	MSCI world index weighted	20	0bp if dealing on the fix
Commission	16	Average global	0	7bp if dealing on the fix
Storage/custody	8-9	Typical global portfolio	30	Allocated. 0bp if unallocated
Interest on lending	(4)	Assuming half portfolio is lent	(100)	Variable
Selling commission	16	Average global	0	(2) bp if dealing on fix
Taxes, etc.	0.3 - 50	0.3bp US, 50bp UK. Varies widely according to country	0	
Total – round trip	66 - 122		(95) - 50	Unallocated – fix vs. allocated – non-fix

Source: 1 Merrill Lynch Investment Management 2 HSBC Bank USA

Investors seldom refuse to buy equities because the transaction costs are too high. Few of them even know what those costs are. Yet, as this table shows, there is a relative advantage of at least 16 basis points rising to two percentage points or more in favour of gold on a one-year round trip. This table gives the lie to the misperception that dealing in gold is expensive.

Even then there will be investors who, though they desire an asset with gold's special investment attributes, find the concept of owning glowing bars of gold difficult to accept. There exist investment vehicles that may be more suited to their particular style.

Straightforward and efficient examples are the depository schemes and metal accounts operated by a number of depositories and investment banks. Gold bars may be bought and stored on either an allocated, that is segregated, or an unallocated, unsegregated basis. The former provides complete security while unallocated gold affords the opportunity of putting it on interest bearing deposit – although the security is then dependent on the security of the bank itself.

A gold-linked convertible bond or structured note provides a securitised investment in gold. This is a hybrid, combining most of the attributes of an investment in gold with all the

advantages of a bond. An important benefit is that the gold convertible bond enables an investor to buy gold with a yield. And it can be structured to provide not only income but also capital protection.

This article has touched upon some of gold's remarkable investment properties, and debunked some of the misperceptions that can be a barrier to investment. In the sort of markets to which we have sadly become accustomed, none of us can afford to sit idly by waiting for eager investors to call. Investors do not buy gold in these conditions; it has to be sold to them. This is what we at the World Gold Council are doing. ■

Success Is Simple

A Back to Basics Approach for Risk Management

By David Stevens, Director of Precious Metals Trading, West LB & Marc Wall, Global Head Gold, Energy & Commodities,

A combination of emotion, lack of knowledge and unclear planning can lead a hedge manager to enter a strategy that may be entirely unsuitable risk wise. Or a strategy may fit within the hedging criteria at the outset but, with a change in the volatility and/or direction of market prices, its nature may alter so significantly that over time it no longer is able to meet the hedger's goals. Using a back-to-basics risk management approach would provide integrity to a hedging program in each instance.

The metals market of 2001 is a very different animal to that of the middle to late 90's. The appetite of mining companies, refiners, central banks and bullion banks alike for risk has changed dramatically. In general terms, the bear trend has become well entrenched – in fact, the occasional pockets of extreme positive price action are symptomatic of such a trend. These occasions provide crystal clear examples of how exotic derivative-based hedge strategies can increase risk to the underlying price rather than mitigate it.

Each and every product listed above has its place in a hedge portfolio – the key word here is portfolio. We believe a portfolio approach to risk management is paramount. Vanilla options are the building blocks we will focus on.

The term leverage – to influence people or events – can conjure up all manner of negative thoughts, but a simple bought put option provides just that. In the current climate, we recommend the purchase of a strip of put options with standard deliveries, which will guarantee a minimum buffer over cash costs. The combination of a known worst-case scenario and an evenly spread maturity profile provides the hedge manager with flexibility and an implied positive mindset. Unlike selling a strip of calls, the market price can move through the option strike without materially impacting the hedge manager's decision-making process.

Costs and Approaches

What does it cost? Like any insurance cover there is a premium attached, a cost that many hedge managers in the past have been reluctant to pay. This payment can be deferred to the option expiry date or dates, thereby matching the delivery schedule.

The success of any investment or risk management decision is inextricably linked to its appropriateness at the outset. The key is to tailor any strategy around the hedger's goals and expectations with specific regard to the following:

- Appetite for risk
- Expected returns and participation levels
- Time horizon
- Liquidity – How easily can the hedger exit from the strategy undertaken?
- Systems and infrastructure – Can the hedger properly value and account for risk?
- Knowledge – Does the hedger fully understand the strategy?

The Hedger's Tools

Hedgers have the following tools at their disposal to manage the price risk of an underlying commodity?

- Forward sale
- Commodity loan
- Derivatives – including vanilla put/call options, exotic options and interest rate swaps.

But nothing comes for free. The granting of call options to fund the purchase of put options (for zero cost) decreases the hedge manager's participation in a rising market, and creates uncertainty over whether the sold call will get struck in the market.

We recognise that the above is the simplest of approaches; however, simplicity can lead to success. Let's explore the original goals and expectations highlighted earlier:

- We have established that risk appetite may well be lower in the current environment. Buying put options at a known cost immediately identifies a worst case scenario for the hedge manager.

● Owning a 'floor' on the underlying asset price suggests that everything else is upside – that is, full participation in a rising market.

● In the current environment, business and management cycles are shorter than in the past. When coupled with the ongoing credit-assessment process, the benefit of insurance cover is two-fold: bought puts guarantee downside protection and enable the hedge manager to evaluate risk (market and systemic) in a more impartial manner. Looking ahead, we expect the average maturity profile of hedge books to be less than five years.

● It's all well and good for a hedge strategy to be a 'fit' at inception, however in certain market conditions the hedge profile may change dramatically. For example, the hedge manager might buy a gold put, and for zero cost sell a gold call at the same strike that knocks-in at a price higher than current spot (intriguingly termed a **smart forward**). This may be quite appropriate in a flat-to-weaker price cycle, but in a Washington Agreement scenario, the hedge manager is left with additional out-of-the-money hedging.

● It is not unusual for liquidity in the exotic derivatives market to decrease in a volatile price environment. This may materially impact the hedge manager's ability to exit from the strategy.

● There is no doubt risk management systems do not in any way resemble their predecessors of the last decade. Having said that, any strategy must begin and end with the right hedging philosophy. The hedge manager must have a thorough understanding of the behaviour of the strategy and its ramifications over a range of prices.

In summary, today's low but fickle gold price environment requires a pragmatic and controlled approach to risk management. Hedge managers can do well to deploy derivative tools which protect them from downside risk without committing them either to unlimited loss of upside potential or to a tenor which exceeds the reduced parameters of our modern day business cycle. ■

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Visit our stand at the LBMA Precious Metals Conference 2001 in Istanbul for your free copy.

For more information call + 44 20 7736 0774 or visit www.commodities-now.com

LBMA News

By Stewart Murray, Chief Executive, LBMA

Membership Changes Market Makers

With the agreement of the Management Committee, the Market Making membership of J. Aron & Company (Bullion) will be transferred on 21 May 2001 to **J. Aron & Company (U.K.)**. Contact details are unchanged.

The Bank of Nova Scotia – Scotia-Mocatta has moved from Mocatta House in Crosby Square to new offices at 80 Cheapside, London, EC2V 6LD. The new phone number is 020 7489 5150, and the fax number is 020 7489 5151. Scotia-Mocatta, or its predecessor, Mocatta and Goldsmid, had occupied the five floors of Mocatta House for almost the last twenty years. The move to Cheapside allows both the precious metals and base metals trading operations to be located on one floor. A nice point of continuity is that the splendid bullion scales used at Throgmorton Avenue and dating from the late-1800's can still be seen in the reception area. Simon Weeks of Scotia-Mocatta (and also vice-chairman of the LBMA) denied rumours that the move had been to allow him to keep a closer eye on the residents of 6 Frederick's Place, which is located a stone's throw from the new Scotia office.

Although the holding companies of **The Chase Manhattan Bank** and **Morgan Guaranty Trust Company of New York** merged in December 2000, the final merger of the two banks will not be completed until October 2001. So for the moment, both memberships continue. Both sets of dealers are already located at the Chase office at 125 London Wall, London EC2Y 5AJ, and the Morgan number has changed to 020 7600 2300.

Ordinary Members

Itochu Europe resigned its Ordinary Membership on 9th April 2001.

Good Delivery List Name Changes

Kyrgyz Republic - Gold JSC-Karabalta has been renamed Kyrgyzaltyn JSC with effect from 1st May 2001. A new brand, consisting of KYRGYZ REPUBLIC in oval round ALTYN on crossed globe logo, was also approved.

Italy - Silver

The change of name of the former Eniresorse to Portovesme S.r.l. was approved on 1 May 2001. The new brand was also approved – PORTOVESME S.r.l. - SAN GAVINO in circle.

Transfers to Former Lists United States – Gold and Silver

Handy and Harman Refining Group's Attleboro refinery was transferred to the former lists on 3rd April, 2001

Committee Membership Changes

There have been several changes in Committee Membership recently.

Peter Hillyard of ANZ Banking Group has joined the PAC. Peter is no stranger to LBMA Committee work, having previously served on both the Membership and the Management Committees. Following the resignation of Alan Morris from the Membership Committee, John Coley has agreed to take on its chairmanship. Two LBMA stalwarts have also joined the Committee – Jeremy Charles of HSBC (who has previously served on both the Management and Physical Committees) and Jack Allen of Investec Bank (who was on the Finance Committee until his departure from AIG last year).

Finally, the vacancy on the Finance Committee has been filled by Terence Carroll of HSBC.

Committees

Management Committee

A substantial amount of the Committee's work in the past few months has involved discussion of the recommendations of the Public Affairs Committee concerning the arrangements for the Conference in Istanbul and the venue for the Conference to be held in 2002. Much work has also been done by members of the Committee on The Guide to the London Bullion Market (see box) which will be launched at the Istanbul Conference.

Public Affairs Committee

As usual at this time of year, the main efforts of the Committee are expended on making arrangements for the LBMA Precious Metals Conference. An indication of the work involved by the members of the Committee in this area can be seen from the fact that during the past six months, the speakers program for Istanbul has gone through no less than sixteen incarnations! The Committee has also debated at length all the different possible venues for the Conference in 2002, taking account of the feedback derived from the last Conference in Dubai and consultations with many participants throughout the world market. The venue for 2002 will be announced in Istanbul.

The LBMA's Seminar Program has been the subject of a radical review by the Committee recently. Its conclusion, broadly accepted by the Management Committee, is that in future, seminars should only take place when there is a suitable, topical theme, where the LBMA can contribute to the enlightenment of market participants and/or observers. Thus, any readers with

suggestions on suitable topics should contact the Secretariat.

Physical Committee

Although the work of the Physical Committee is usually seen in relation to the published changes in the Good Delivery Lists (as shown above), the Committee also undertakes a continuous monitoring of the Lists and on a number of occasions this involves asking companies on the list to submit to renewed testing. Feeling applicants who do not meet the rigorous standards required for the Good Delivery List is just as important an aspect of the Committee's work as the acceptance of those which do. Thus, since January 2000, eight applications have been failed.

People

The following is a tribute to Alan Morris upon his retirement from J. Aron from a former colleague, Neil Newitt.

Alan was the doyen of the London Gold Market traders – one of the 'old school' who was nonetheless able to adapt to the much-changed markets of the 1980s.

He was always at his desk making markets to all, whether the market was dead or frenetic. His colleagues would only know that the gold/silver/platinum/palladium markets had erupted when Alan – a phone in each ear and busily typing on his Reuters – would state firmly and clearly "Get People!" This would galvanise the team into action to support him.

Alan was formidable, able to handle numerous metals by himself, whatever market conditions – one of the best market makers I ever knew. His skills did much to augment and cement London's position as the pre-eminent precious metals marketplace. ■

Golf

The 2001 LBMA Golf Day took place at Harpenden GC on 1st May with 33 keen competitors in cold and windy conditions. However, unlike the demonstrators in London that day, we stayed dry so our spikey hair stayed in place!

The Jack Spall Trophy was won by Daniel Lane of ViaMat with Jan Rommer of Sogemin the runner-up. Jan also won the Nearest the Pin competition on a short hole with a fiendishly tough pin placement, while Ellie Brede put the men to shame with the longest drive. The TFS Team Trophy in the afternoon was won by Peter Beaumont of UBS, Daniel Lane (again!) and Val Johnson, both of ViaMat. It was especially fitting that Val should pick up a first prize having had exclusive enjoyment of the booby prize in the morning competition over recent years.

Our thanks to VIA MAT International Limited, Securicor and UBS AG for their generous sponsorship and to those companies who provided prizes for the lucky winners. ■



CORRECTION In the previous edition of the Alchemist, the article on Gold Reserve Sales Under the Joint Accord incorrectly stated that the Netherlands Bank had sold their gold via a number of official and private counterparts, including the Bank for International Settlements (BIS).

The gold has only been sold through the Bank for International Settlements.

DIARY OF EVENTS

June

5-8 BIREMin-BIREmet 2001- 1st Balkans International Mining, and Metallurgy Exhibition
ITE Group Plc
Contact Oleg Netchaev
Tel: +44 20 7596 5213
Fax: +44 20 7596 5128
Oleg.nethaev@ite-exhibitions.com

9-14 Vicenza Oro 2
Ente Fiera Vicenza
Via dell'Oreficeria, 16 - VICENZA Italy
Tel. +39.444.969111
Fax. +39.444.563954
www.vicenzafiera.it

9-12 International Precious Metals Institute
25th Annual Conference

Sheraton El Conquistador
Tucson AZ, USA
Tel: +1 850 476 1156
Fax: +1 850 476 1548
www.ipmi.org
mail@ipmi.org

14 LBMA Annual General Meeting
City Club
19 Old Broad Street
London EC2
www.lbma.org.uk
info@lbma.org.uk

19-22 17th International Mining Congress & Exhibition of Turkey
Ankara, Turkey
Hacettepe University, Mining Eng. Dept
Tel: +90 312 297 7696
Tel: +90 312 299 2155
unver@hacettepe.edu.tr

July

23-25 Diggers and Dealers Conference
Kalgoorlie, Australia
Tel: +61 8 9481 6440
Fax: +61 8 9481 6446
www.diggersnddealers.com.au
diggers@inet.net.au

September

5-7 7th International Kazakh Mining Conference
Atakent Conference Centre
Almaty, Kazakhstan
Tel: +44 20 7596 5213
Fax: +44 20 7596 5128
www.energywise.nl
Oleg.nethaev@ite-exhibitions.com

19 Gold Fields Minerals Services Precious Metals Seminar
London
Tel: +44 20 7539 7820
Fax: +44 20 7539 7218
info@gfms.co.uk
www.gfms.co.uk

A Guide to the London Bullion Market

The Guide provides in a condensed form a readable and practical introduction to the products and services offered by the London market to its diverse customer base. It also provides the background to the evolution of the OTC bullion market and the role of the LBMA. The Guide will be published at the Istanbul Conference. Members can obtain additional copies for distribution to their clients on application to the LBMA Executive.



Beyond London

Broadening Horizons of the LBMA & its Public Affairs Committee

Editorial Comment by Kamal Naqvi

In recent years, London's position in the international resources market has made something of a resurgence – even if the continuing downward trend in LBMA bullion trading volumes might belie this! As the first member on an LBMA committee representing one of the new International Associates, it is appropriate that I comment on the broadening horizons of the LBMA generally, and, more specifically, the activities of the Public Affairs Committee.



the LBMA Conference as the world's foremost international precious metals conference. So far the signs are good. We have nearly 350 attendees from 37 countries with a good representation from across the market – producers, jewellers, retailers, central bankers, refiners, assayers and bankers.

We are already looking at next year's conference – and even 2003! Potential conference sites

range from Berlin to San Francisco to Hong Kong. It is a challenge to locate a centre that is easily accessible from most continents, that can accommodate nearly 400 attendees and has relevance to the gold industry, but we are confident of selecting another excellent location that will again reflect our truly international market.

The PAC also oversees the LBMA flagship, the quarterly *Alchemist*, which continues to improve and impress. The audience for the *Alchemist* continues to grow and is now extremely international with a subscriber list of over 2,500 names spread over, incredibly, 123 countries! For the contents of the *Alchemist*, (apart from the occasional inspiration from the PAC), the magazine relies heavily on the support and assistance of those within the bullion market. We are constantly looking for contributions and/or ideas for articles, so please don't be shy!

Finally, there is the LBMA website (<http://www.lbma.org.uk>), which is becoming an ever-increasing source of information dissemination not just to LBMA members, but to anyone with an interest in the precious metals. The website receives thousands of hits daily from around the globe – countries represented during one week include Estonia, Slovenia, Mauritius, Indonesia, Mexico, the Czech Republic, Lebanon.

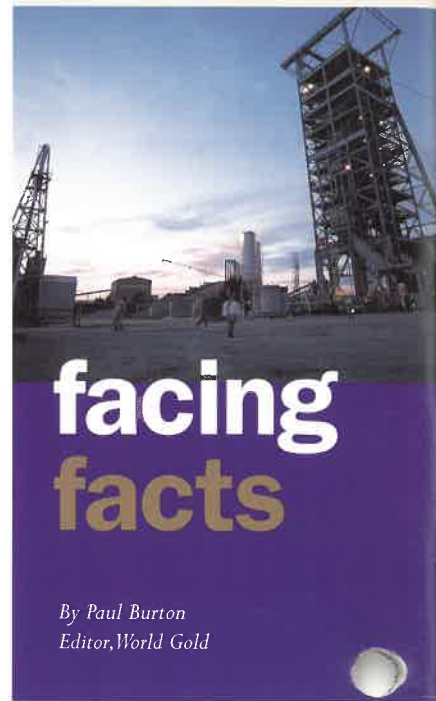
The London market certainly aims to maintain its role as the global bullion trading centre and – to do this effectively – its representative body, the LBMA, must reflect the international market. Towards that goal, the PAC will strive to play its role in terms of information dissemination, networking and feedback. If you ever have a suggestion – for the PAC or the LBMA – please get in touch, we'd love to hear from you! ■

The position of "International Associate" was created to help the LBMA better reflect the global nature of the bullion market. There are, of course, many companies in the bullion market that are not based in London but are still directly, or indirectly, affected by the functioning of the London bullion market as the hub of global OTC precious metals trading. These companies have an interest in participating in the market's representative body. Through their participation, the LBMA is better able to ensure that London continues to meet the evolving needs of the global bullion market.

This was certainly the view that we took at Macquarie Bank. With our long-standing role in the Australian bullion market and continued commitment to the global market, we felt it was useful to be associated with the LBMA and to be a part of the continued development of the London bullion market. There are now 16 other International Associates from across the bullion market spectrum – companies that are similarly looking to have the opportunity to play a role in the LBMA.

The Public Affairs Committee (PAC), established 11 years ago, is the marketing arm of the LBMA and is designed to disseminate market-related information, help educate the market and the wider public, and provide the opportunity for debate and social interaction among market participants. The committee meets once a month and meetings are always, perhaps surprisingly, lively as members look for subjects that will generate interest and colour.

The key task for the PAC this year has been the organisation of the second LBMA Precious Metals Conference in Istanbul. Committee members have argued long and hard about topics with a real aim to provide attendees with a wide-ranging, challenging and truly international conference. We are very hopeful that we can follow on from the success of the first conference in Dubai last year and establish



By Paul Burton
Editor, World Gold

*It is appropriate
that this column is
called Facing Facts
for that is exactly
what the gold
miners are being
urged to do. From
papers and
discussions in Perth
last month the
following facts
emerged:*

Fact: Exploration spending is down.
Fact: Ore reserves are not being replenished.
Fact: High grading of orebodies has exacerbated the problem.
Fact: Too much emphasis has been placed on cash costs while ignoring the better measure of mining, capital efficiency and total production costs.
Fact: The industry is guilty of destroying value by mining too much uneconomic ore.

The consensus was that, given the above facts, gold production will decline, quite dramatically, over the next decade. One of the consequences, and indeed one of the necessities, is that the industry must consolidate.

Two of the industry leaders who preached this particular gospel in Australia are at the forefront of the consolidation movement. Pierre Lassonde of Franco-Nevada Mining, and Bernard Swanapoel of Harmony have created major headlines in recent months with their corporate activity.

Franco-Nevada Mining has shrugged off the disappointment of its aborted merger with South Africa's Gold Fields last year and has formed a strategic alliance with Australia's Normandy Mining. The deal involves the Canadian firm in effect exchanging its Ken Snyder gold-silver mine in Nevada and the exploration properties of the surrounding Midas project area, plus its Australian interests and US\$48 million in cash, for 446.1 million new shares in Normandy in a deal valued at A\$406 million, equivalent to US\$197 million. The deal will give Franco-Nevada just under 20% of Normandy, and Mr Lassonde will take a seat on the board.

The inclusion of the Ken Snyder mine will take Normandy immediately to an annualised production rate of 2.4 Moz (up 10%), with estimated total cash costs of around US\$140/oz and total production costs of roughly US\$190/oz.

Franco-Nevada will retain a royalty interest in the Midas property thereby reverting to its original strategic model of being a pure royalty company.

The investment in the Australian major, cleverly engineered with non-core assets as the trade-off in the barter deal, can provide many of the advantages that the ill-fated Gold Fields merger promised. Unlike the earlier proposal, however, it carries one particular aspect that is an anathema to Franco-Nevada's religious-like anti-hedging stance.

Normandy is, of course, well known as a gold hedger – something that goes against the very grain of Franco-Nevada's business philosophy and will limit Franco's leverage to the gold price. Be sure that the presence of Pierre Lassonde on the board of Normandy will mean that its hedging policy will come under close scrutiny and, no doubt, constant challenge.

Franco-Nevada's acknowledged dislike of hedging begs the question of why it chose to link in with Normandy. Part of the answer lies with relative valuations. The Canadian views Normandy as being good value especially when compared to a similar-sized US company like Homestake Mining. Mr Lassonde believes that analysts still afford North American gold companies valuations well above what they should be. But having said that, Mr Lassonde certainly hopes that, as a result of the alliance with Franco-Nevada, Normandy's shares might acquire some of the North American premium and thus increase the value of Franco's investment. Furthermore, he believes that Normandy should be listed on the New York Stock Exchange – as not only will it then perhaps attract a North American valuation, but have better access to the big capital markets.

At the beginning of April, Franco-Nevada was capitalised at around US\$1.8 billion on the Toronto Stock Exchange. Lassonde admits that, even together, the two

companies are not large enough to attract general investor interest in New York, where a US\$5 billion market capitalisation is a minimum requirement to gain such attention. However, he whetted the appetite of delegates in Perth with the throwaway line that, although the two would not reach the lower market capitalisation limit, "if you put a third together there is every chance that we would be there".

This comment seems to suggest that Franco-Nevada will remain proactive in seeking further corporate deals as a leader in global consolidation. After the Normandy deal it will still have a big cash pot available for spending: at the end of March the company held over C\$1.1 billion in cash and near-cash assets.

Another recent investor in Australia is Harmony. The South African company is in the process of finalising compulsory acquisition of New Hampton Goldfields' minorities after its bid achieved over 90% in April. But it is in its own backyard where it has just secured a groundbreaking deal.

The young, energetic management team at Harmony has always sought to push the boundaries of strategic business thinking in pursuit of shareholder value. The latest scheme – to allow a group of black investors to participate in the company as the single largest shareholder group – shows that Harmony is continuing to redraw the competitive battle lines. It also shows a keen grasp of the socio-political realities of doing business in today's South Africa. It is a shrewd move.

Although the company's strategic objectives in the past have been met by expansive growth Harmony also recently announced some mine rationalisations that prove that it is prepared to contract as well by shutting down unprofitable production.

The empowerment deal is backed by the Industrial Development Corporation, the South African

Government development agency which is funding the R400 million purchase of a roughly 10% interest in Harmony by black consortium Komanani Mining.

Komanani is composed of various investment companies and women's groups. The deal has the full support of the Minister of Minerals and Energy, Phumzile Mlambo Nguka, who said it would "address black empowerment and ownership ..." in the South African gold mining industry.

Meanwhile, Harmony has completed the acquisition of two mines from AngloGold, Elandsrand and Deelkraal, which should add some 400-500,000 oz/y to its production profile. Harmony will shortly grow to reach around 2.7 Moz/y of gold production – due to its busy acquisition trail, countered by the fact that it intends to cut uneconomic production at New Hampton's mines.

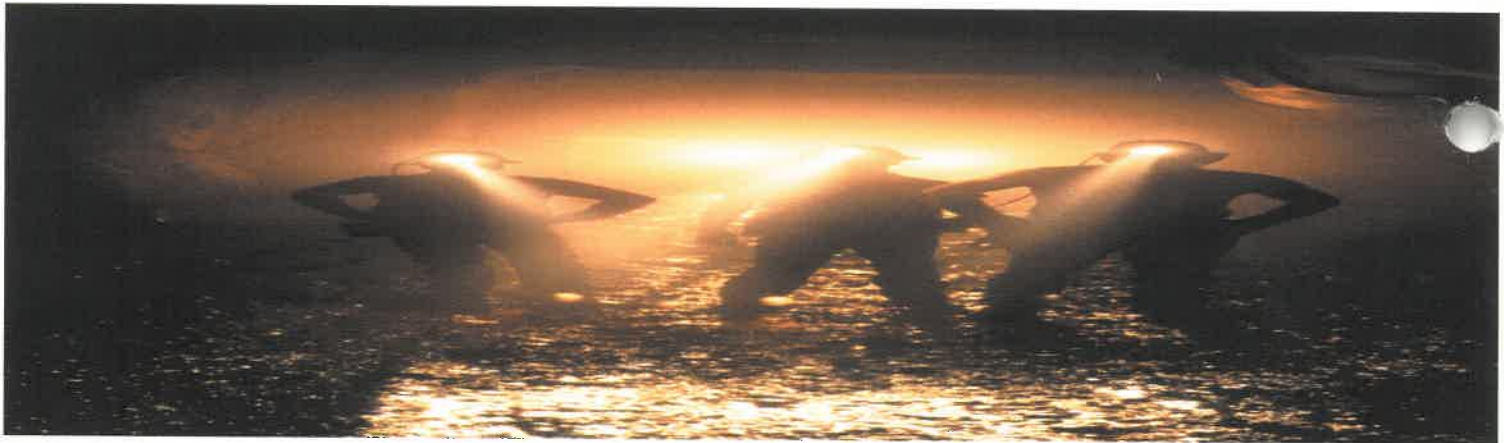
The industry finds itself in the doldrums at present, with a low dollar gold price and little investor interest. It is now time for it to face facts by consolidating, and hopefully through consolidation achieve better production discipline for the good of the price and company shareholders. ■

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