

In this issue

Fifty Years on the Gold Trail

By Timothy Green

Page 3

The LBMA - Providing a Chain of Integrity in the International Gold Market

By Ruth Crowell

Page 6

Gold Demand Highlights Economic Risks - Global Uncertainty Impacting the Precious Metals Market

By Ben Robinson

Page 9

Links Between the Chinese and International Gold Prices

By Neil Meader

Page 12

Atomising Broadens the Realm of Precious Metal Utility

By Roberto Guidali

Page 14

The Singapore Bullion Market

By Sunil Kashyap and

Albert Cheng

Page 16

New LBMA Members' Portal

– Bringing Members & The LBMA Team Closer

By Ed Blight

Page 19

Regulation Update

By Sakhila Mirza

Page 20

LBMA News

By Ruth Crowell

Page 22

Editorial Comment

By Edel Tully

Page 25

Facing Facts

By William Tankard

Page 27



Gardens by the Bay above, set in 250 acres in the centre of Singapore, is the stunning location for the Conference Dinner. Read about the precious metals market in Singapore in the feature article by Sunil Kashyap and Albert Cheng on page 16. The Singapore Conference also takes centre stage in the Editorial by Edel Tully on page 25.



Destination Global.

TD Metals – Where Can We Take You?

TD Securities seeks to be your global metals partner. This is why we are expanding our Metals Group to meet your risk management challenges. We are proud to be a Top 10 Bank in North America¹ and one of a few banks globally to be rated Aa1 by Moody's – a testament to our culture to provide a secure and stable environment enabling your team to transact within the capital markets.

Our firm commitment to the metals market is our commitment to you.

Contact one of our representatives today.

Toronto
1 416 983 9288

New York
1 212 827 7866

London
44 20 7628 5665

Singapore
65 6500 8022



⁽¹⁾ Ratings on long term debt (deposits) of The Toronto-Dominion Bank (TD Bank Group, TD or the Bank) as at July 31, 2016. Credit ratings are not recommendations to purchase, sell, or hold a financial obligation inasmuch as they do not comment on market price or suitability for a particular investor. Ratings are subject to revision or withdrawal at any time by the rating organization.

Fifty Years on the Gold Trail

By Timothy Green, Author and Journalist



Traditional freight boat dhows on the creek in Dubai

While he was at Cambridge, where he studied history and edited the University newspaper, Timothy Green began to write as a journalist. He then joined the London office of Time-Life, where he was a writer working with some of the great LIFE photographers. Here he looks back on his long career in the gold business.

My interest in gold stems from an article I wrote in 1966 for the American business magazine, *Fortune*, on the London gold market and the private buying of gold. In my research, I looked for an authoritative book. There wasn't one, so I wrote it. I spent two years researching for the *World of Gold*, setting off on the gold trail around the world, tracking the metal from London to Switzerland, Beirut and Dubai (then a mere creek, with dhows loaded with tola bars secretly headed for Bombay), then checking in through Hong Kong and Tokyo before turning down to South Africa, which at that time accounted for 70 percent of gold mine production worldwide. You see no mention of the Americas, because American citizens had not been allowed to hold any gold privately since 1933 (and would not be able to do so until 1975).

Meanwhile, when my book came out in 1968, it coincided with the historic change that saw the gold price freed to float on the London market in contrast to a fixed price, which had prevailed, often for centuries at a time. The world of gold changed for ever. Previously, people had held gold for protection, now they sought profit. And the whole gold market from then on must be seen in that new light. The rapid expansion of the gold market in the 1970s happened once Americans could again hold gold.

As I reflected in a new book in 1980, the gold business had been transformed more radically over the previous decade than at any time since the great gold rushes of the 19th century. Not only was there a renaissance in gold mining everywhere from Australia, Brazil and Canada to the United States and Zimbabwe, triggered by the high prices of the 1980s, but the establishment of new markets in Hong Kong and New York created a worldwide trading game. And a host of new players were attracted by the possibility of making money through the volatility of the price, which could fluctuate by \$50 or more in a single day (whereas before it was stable for centuries at a time). The gold price moved from \$35 in 1970, to \$850 in 1980 and to \$350 in 1984, and the whole landscape had transformed.

The gold business was growing so rapidly that I was from then on required to write a new book every five years or so. These were *The World of Gold Today*, *The New World of Gold*, *The Prospect for Gold*, *The View to the Year 2000* and a completely new edition of the original *The World of Gold* in 1993.

My role also had been transformed. I set out originally as a journalist, but my book had attracted the attention of David Lloyd-Jacob at

Consolidated Goldfields, who then instigated an international research project on budding gold markets and the impact they might have on markets for South African production. He took me out to lunch and offered me a territory from London to Hong Kong to make friends in local gold markets and find out about local demand. From that was born the unique GFMS research team, which survives today and will celebrate its 50th report next year. For me, this led to 30 years of travel from the souks of Saudi Arabia and then onto India where I built relationships with the Bombay Bullion Market and the local gold hero Madhusudan Daga. Every year, Daga met me in Bombay, off the plane from Dubai, eager for clues on how much gold was going through Dubai. Amusingly, Indian customs also invited me in for coffee on the spot to hear what the gossip was.

For the next 30 years, I spent four or five months of the year on the road, or rather in the air, visiting local gold markets, particularly in the Middle East, including Beirut, Saudi Arabia, Dubai and all the Gulf states, as well as India and Thailand, where I flew up from Bangkok to Vientiane in Laos on a plane that took gold to the local branch of Banque l'Indochine. An armoured car from the bank took the gold from the plane and so I was able to assess local demand for jewellery and investment. If the souk there was busy with eager local people buying gold and jewellery, you sensed that the price of gold was deemed to be low. But if the souk was quiet that meant that the price was near the top.

“Previously, people had held gold for protection, now they sought profit. And the whole gold market from then on must be seen in that new light.”

Over the years, I grew up with many souk families all over Asia who would pass me on to the next generation with the advice 'tell Mr Green what he needs'. Actually, that happened with many families also in Dubai and the Gulf. We all grew up together.

And it was around this time that the LBMA grew as a unique leader for the gold industry. At the same time, of course, the gold business widened using new technology and even deviating increasingly, to my mind, into a situation where the last thing anybody wanted was to actually hold the bullion itself.

Derivatives became all important, resulting in books on derivatives, including one from our own small publishing business in a title called *The Derivatives Revolution*, with Jessica Cross as author which was part of a series called *New Frontiers in Gold*. It announced that 'it answers all your questions on forwards, funds, futures, gold loans, hedging, options, spot deferreds and warrants'. We sometimes received panic-stricken faxes ordering this book from South Africa and other gold-producing countries for delivery by air for the next week's board meeting, so that the directors received a copy each to work out what it all meant.

“ China became more interested again in gold in the 1980s through issuing new coins of its own, which it hoped to export. ”

Meanwhile, on the physical gold front, there were some interesting newcomers, notably China, which had been a gold producer back in the year 1,000AD when it has been estimated that it produced about 400 tonnes spread over a few decades. But then China switched, until modern times, to a preference for silver. China became more interested again in gold in the 1980s through issuing new coins of its own, which it hoped to export. It was therefore eager to make contacts with the international gold market and I had an opportunity, based on the reputation of the GFMS annual gold surveys, to visit the central bank in Beijing. They sent a car to my hotel the morning after I landed to take me to the central bank where we talked the whole morning, with the Chinese asking me questions about the international gold market and how they might be involved. They were reluctant to tell me anything about China's gold scene. I had to calculate from their questions what their thinking was. Then they took me to a lavish lunch, followed by a thorough tour of Beijing. From then on, we had a useful relationship. Their real interest proved to be how they could get mining advice and possibly finance from South Africa.



Building a Global Brand, 1750 to 2010



Gold jewellery for sale in the gold souk (or traditional market) in the deira district of Dubai

In tandem with all this activity, the LBMA became an international institution with annual gold conferences worldwide, in the United States, Dubai, Tokyo and even Peru. By this time, in the late 1990s, I had retired from my travels for the GFMS annual gold survey. My last conference speech was at the LBMA conference in 2000, which appropriately was in Dubai, where I originally sailed up the creek all those years before. The new Dubai overwhelmed me.



Gold funerary mask, Mycenae c1600-1500 BC reputed to be that of Agamemnon, legendary king of Mycenae and leader of the punitive Greek expedition against Troy.

I then took the opportunity to go back into the history of the London gold market. I tracked the chronology of the London market from 1663 to 2010 with much help from the Bank of England's library. This embraced everything from the introduction of the guinea in 1663 (named after Guinea on Africa's gold coast) to identifying in 1671 that Moses Mocatta moved from Amsterdam to London, establishing the oldest member of today's market (now Scotia Mocatta). Moses Mocatta first shipped gold to India with the East India Company in 1676, shortly followed by the establishment of the Bank of England in 1694. The Bank became the heart of the gold business in London for the next 300 years. This chronology was building a global brand for gold. The report was called *The London Good Delivery List. Building a Global Brand*, published by the LBMA in 2010.

I had retired from reporting on the gold market, but that then gave me the unique chance to research the history of gold from earliest times through the last 3,000 years. So I spent the next five years on the trail of gold's history for a new book, *The Ages of Gold*, which covered

the mines, markets, merchants and goldsmiths from Egypt to Troy, Rome to Byzantium, and Venice to the space age. My travels took me from the gold-encrusted tomb of Philip of Macedon, the father of Alexander the Great, near Thessaloniki, to the treasures of Troy in the Pushkin Museum of Fine Arts in Moscow. *The Ages of Gold* was published by GFMS, with the support of Philip Klapwijk, Executive, Chairman of GFMS.

“ So I spent the next five years on the trail of gold's history for a new book, *The Ages of Gold*, which covered the mines, markets, merchants and goldsmiths from Egypt to Troy, Rome to Byzantium, and Venice to the space age. ”

The greatest pleasure in researching *The Ages of Gold* was that my wife was able to join me in museums and ancient sites to admire gold's legacy. I shall always remember the morning, shortly after dawn, when we stood alone on the hilltop of the palace of Knossos on Crete, looking out on the landscape of Cyprus trees and olive groves below, little changed since Minoan times 3,000 years before. It was an exceptional experience to link the modern world of gold with the ancient one.



Timothy Green, Author and Journalist has been writing about gold for 50 years. His first book, *The World of Gold*, came out in 1968 and was revised several times. He also wrote *The Gold Companion: The A-Z of Mining, Marketing, Trading and Technology* for the Swiss company MKS Finance SA. His latest book, *The Ages of Gold, on the 6,000 years' history of the metal*, was published in 2007 by GFMS, the precious metals research company, for whom he was also a consultant on world gold markets for three decades. In 2010, he wrote *Building a Global Brand, The London Good Delivery List 1750-2010* for the LBMA.



Precious & Customized Solutions



Precious Metals Management



Contact us
confo@igrglobal.com
www.igrglobal.com

The LBMA - Providing a Chain of Integrity in the International Gold Market

By Ruth Crowell, Chief Executive, LBMA



This is a transcript of the Keynote address which Ruth delivered at the 2016 India International Gold Convention (IIGC) in Agra, India, on 11 August, 2016.

Good evening Ladies and Gentleman. It's great to be back in India. It's also a pleasure to be back amongst friends here the IIGC, speaking to you tonight. Sincere thanks to the organisers for the invitation to address you this evening.

Every time I come to India, I am reminded of how lucky we are. As Chief Executive of the LBMA, I get to travel the world and meet with so many gold market participants who are keen to do more, to innovate and develop, and to have a bigger seat at the global table. They look to the LBMA to provide solutions to their problems or to give integrity to their ideas. My job is to identify where we can help and explain clearly when we cannot – and also to spread the news that the LBMA is changing and there have never been more opportunities to engage.

It may surprise you, but a lot of the questions I get from these markets are actually the same, regardless of where I am. For Good Delivery, the question I always get is, 'Please can you create an LBMA B list, because the standards are too high, particularly on tonnage, financial net worth, etc.' 'No' is of course the short answer, but the longer answer gives the important reason why. It's important to everyone around the world who

relies on the London Good Delivery List that it can be trusted. In order to have that integrity, we must safeguard the standards and be consistent with their application. We do not aim to be the accreditor for every refiner around the world. We look for global partners who can consistently deliver large quantities of quality metal into London and around the world on a long-term basis. The global aspect is important as we can all appreciate the ability to grow the precious metals market when we look to set an international, not a local standard. And long term is of course important as gold plays that fundamental role as a safe haven for families, investors and governments alike. We are looking for refiners who will be there for decades, not years.

Chain of integrity is vital in the gold market, and the LBMA Good Delivery List provides a crucial link in that chain. If we compromise our standards, the banks, central banks, refiners, investors, mints, jewellery and electronic companies who rely on us would all suffer commercially. They would also have enormous difficulty and costs trying to individually manage the quality of the metal they use/produce. If there is to be confidence in the gold market, clients must fundamentally get what it says on the tin. And that's what the LBMA brand must provide.

And the label on the tin has changed, particularly if you want large multinational companies to buy or finance gold. Not only does it have to be gold, but it also has to be Responsible. And this brings me to the second main question I get. "Is Responsible Gold really necessary for me?" Many consider it a US or European problem and something they can ignore. I said at the beginning that it is nice to be amongst friends, and I mean that. But sometimes friends need to tell each other harsh truths. And this is one of those. You cannot escape Responsible Gold. or Responsible Silver for that matter. It is coming for you, so why not get ahead of your competitors. If India is to become the jeweller for the world under *Make in India*, you need to become leaders in Responsible Gold. You cannot simply sign a letter and expect large international jewellery companies to accept your word. Customers demand meaningful independent verification of responsibility and other markets are providing it. China is now taking this seriously and becoming a leader in this space. India needs to do the same to be competitive.

“Chain of integrity is vital in the gold market, and the LBMA Good Delivery List provides a crucial link in that chain.”

And that is where the LBMA can help. We can provide the tools, the training, our experience, the best practice examples and put you in touch with industry experts. But we cannot do the work for you. Integrity has to be earned. It cannot be given. The goal of our on-going engagement in India is so we can help grow capacity and help bring the Indian market voice to the table. We can give you all the tools and help you join the global discussion. We can even bring the world to India to talk about physical issues or Responsible Gold. But India needs to do the heavy lifting. There is a need for stability and consistency in the Indian market that is transparent and gives confidence to the outside world. And industry leaders need to engage externally as well on a consistent and ongoing basis to demonstrate that stability and transparency. There are numerous ways to



The LBMA Executive take a "selfie" in front of the Taj Mahal in Agra during a break at the convention

do this, for example, international bodies and events set up to help market players improve how they do business, whether it is regarding refining, assaying or trading. But there has been limited involvement to date from the Indian market. That needs to change in order for India to continue to grow. A few players cannot do it all on their own. You need to speak with one clear and consistent voice.

“It is not just about doing the right thing. It is about doing the right thing when no one else is watching.”

I know you are going through your own innovations and strategy sessions to see how you can achieve that stability, build the Indian market and have a larger seat at the global table. Again, this is happening worldwide, including at home in London. My advice to you would be not to try to reinvent the wheel. Instead, embrace the ideas and opportunities that are currently out there and look to see where you can add unique value. At the LBMA, we are currently focused on bringing real technology to the global market. This is initially for reporting and helping to demonstrate transparency to the regulators. But we are also looking at how we can use technology to grow the market on an international basis. And if we decide to do something, we want to do it well.

We were recently asked to develop a global Precious Metals Code, following the example set by the Forex markets. And we look forward to receiving your views once we open it for public consultation. But one of the reasons we have not released it yet is because, in the gold market, we do not just want to do things the same as other markets, we want to do things better. And that's where the integrity comes in. It is not just about doing the right thing. It is about doing the right thing when no one else is watching.

I alarmed a few people yesterday with the unintended consequences of the Basel III liquidity ratios. This is international, G20-level regulation intended to avoid another financial crisis – a good intention, with some worrying potential consequences. The LBMA is concerned about banks exiting and financing becoming not only scarce but exponentially more expensive. Gold has not been singled out as a market; instead, it has been swept in with all commodities, even though we all know it also acts as a global currency. We need to have a strong, global voice to champion the strength and liquidity of the gold market, and India should be part of that voice. We need the regulators to understand the integrity of the gold market and we need to provide more transparency to demonstrate that to them on a consistent and ongoing basis.

“With the help of senior government, India could be a real voice for gold not just in the local market, but around the world. That recognition is also an opportunity for the industry to get real support in your plans for local innovation.”

When trying to defend the integrity and the liquidity of the market, it helps if people have heard of you. The UK has the largest financial gold market in the world, but we have never had the Prime Minister championing the gold market like you have here in India. It continues to remind me of the work ahead when we speak to UK government officials who are not aware of the London Gold Market.

With the help of senior government, India could be a real voice for gold not just in the local market, but around the world. That recognition is also an opportunity for the industry to get real support in your plans for local innovation. For London, central bank and treasury support has always been crucial in the efficiency and attractiveness of the market to local and international players.

I do not have to tell you that there are real pressures and changes going on in the global gold market. Physical demand is down, regulation is high and all players –including refiners, traders, banks – have been affected, with some even forced to shut down or exit. But with those changes and challenges come opportunities. We are going to hear over the next few days from many industry experts about the innovative ideas that they have had. And as always, the LBMA will be here, to listen and to engage with you in the dialogue. I just hope that we can continue to see India present in the meetings, dialogues and innovations outside of India. As I said at the beginning, we

have to keep the standards high, for the sake of all of gold as a brand. But the doors are open - get involved.



Ruth was appointed Chief Executive of the LBMA in January 2014. She is responsible for the success and strategic development of the LBMA, in partnership

with the Chairman and the Board. She is also responsible for maintaining accountability to and the quality of, the Association's Membership and Good Delivery Refiners as well as representing the interests of the Association in relation to regulators, investors, media and international precious metals markets.

Before being appointed Chief Executive, she spent seven years working in the Association, initially as Commercial Director and then as Deputy Chief Executive, where she acted as the main lead on Governmental Affairs. She was also responsible for the Association's work on supply chain due diligence, with particular regard to the creation and implementation of the LBMA's Responsible Gold Guidance. She has represented the Association at industry, governmental and multi-stakeholder regulatory forums. She continues to serve as Vice Chair of the OECD Multi-Stakeholder Governance Group for Responsible Minerals. As Commercial Director, she oversaw the development of the LBMA Conference, the LBMA's quarterly publication the *Alchemist* and the LBMA website.

Prior to joining the LBMA, she worked in bank finance and US corporate law at the law firms of White & Case and Norton Rose, and also acted as a monitor at the UN Commission on Human Rights in Geneva. She has an MSc in History of International Relations from the London School of Economics and a degree in English Literature from Kenyon College in Ohio.



Corporates & Markets

Precious metals solutions based on global insight and trusted expertise.

Whatever your activities in the precious metals market, it pays to be with a partner with global presence and trusted experience across the value chain.

Commerzbank delivers insight, distribution and product structuring capabilities across the full spectrum of physical and non-physical precious metals solutions.

- Gold, Silver, Platinum, Palladium, Rhodium and Ruthenium trading on a Spot and Forward basis
- Unallocated, Pool and Allocated accounts
- Sales, Lending and Leasing of metal in both bar and industrial forms
- Full range of OTC Swaps, Options and other derivatives
- Retail Warrants and Certificates, Structured Notes, Certificates and Deposits
- Refinery services
- Trading centres in Frankfurt, London, Luxembourg and Singapore
- Physical bullion trading: bars and coins

| | |
|----------------|--------------------|
| Bloomberg | CZPM |
| Reuters | CBGL |
| Direct contact | + 352 477 911 2540 |
| Asia | +852 3988 0873 |
| Europe | + 44 20 7475 4878 |

This communication is issued by Commerzbank. Commerzbank AG, London Branch is authorised by the German Federal Financial Supervisory Authority and the European Central Bank and subject to limited regulation by the Financial Conduct Authority and Prudential Regulation Authority. Details about the extent of our regulation by the Financial Conduct Authority and Prudential Regulation Authority are available from us on request. Copyright Commerzbank AG 2016.

COMMERZBANK
The bank at your side



Gold Demand Highlights Economic Risks - Global Uncertainty Impacting the Precious Metals Market

By Ben Robinson, Economist, Official Monetary and Financial Institutions Forum (OMFIF)



Since the end of the gold standard in the early 1970s, gold's role in the world economy has closely tracked periods of economic and political turmoil, expanding when confidence declines and retreating when confidence returns. The rise in demand for gold among investors, savers, central banks and consumers since the onset of the financial crisis in 2007 owes much to the safety and liquidity of gold relative to other assets. Over the last few years, the negative yields on large portions of other traditional safe assets such as government bonds have further increased gold's attractiveness and reduced the opportunity costs of holding this non-yielding asset. The sensitivity of gold to developments in the broader global economy creates both opportunities and challenges for the various sectors of the gold industry.

Changing fortunes for gold

This year, gold miners have been caught between opposing financial forces. While they have benefitted from growing demand, which has contributed to price increases of around 27% since January, they have also been vulnerable to signals over US monetary policy. The prospect of a further interest rate rise later this year strengthened the dollar in August and weakened the outlook for gold prices and mining shares.

On the consumer demand side, the rapid growth of Chinese gold retail investors has been driven in part by volatility in China's stock and property markets, which have previously provided the two main sources of investment for domestic investors. Since last summer's stock market crash, gold has made significant headway, aided by a rapidly growing array of investment products, including exchange traded funds and gold accumulation plans, although it partly reflects weakness elsewhere in the economy.



Chinese investors suffered during the 2015 stock market crash

On the central bank front, Russia has stepped up its gold purchases and has sold dollars and other reserve currencies as it seeks to reduce its dollar liabilities, leading to the highest share of gold as a percentage of its official reserves since early 2000, at 16.2%. Kazakhstan has also increased its holdings substantially and has banned gold exports. Turkey has incentivised commercial banks to purchase more gold from the general public and deposit it at the central

bank, and of course China has been steadily accumulating gold in part as a way to stabilise the renminbi ahead of its inclusion in the IMF's special drawing right reserve currency from 1 October. At the same time, developed country central banks have stopped selling their gold reserves, reducing the available supply.

OMFIF has covered this topic extensively over the last few months, producing two in-depth reports, the *'Seven ages of gold'*, tracing central bank policies on gold since 1835, and the *Global Public Investor 2016* report on the growing use of gold by public sector investment institutions.

Brexit effect on gold

As the above examples show, the sensitivity of gold demand to economic and political uncertainty is an important factor driving markets. The global economy faces a series of challenges over the next few years which may have implications for gold and other precious metals.

The UK's decision to leave the EU on 23 June sent gold prices soaring as investors moved out of sterling assets, which fell by around 15% in the weeks following the vote. The uncertainty over what relationship the UK will have with the EU is delaying investment decisions across the continent and weighing on market sentiment, auguring a period of underperformance for assets from stocks and corporate bonds to property, and of potential weakness for both sterling and euro.

The longer-term impact this will have on gold depends in part on the response of the European Central Bank and Bank of England to the post-Brexit challenges. A £10bn, 18-month corporate bond purchasing programme announced by the Bank of England in August could help boost confidence and limit the shift out of these assets into safe havens such as gold (similar programmes by the ECB managed to stabilise markets following their announcement). The cut in interest rates to 25 basis points, however, and the falling yield on government bonds could see greater demand for gold. Future stimulus measures by the ECB to offset the impact of Brexit could have a similar consequence.

A bigger risk may be the weaknesses in European banks, which could drive the next euro crisis. Low interest rates have hit bank profits and share prices across the continent, and could limit future lending. The size of bad loans in Italy, the hardest hit country, is around €360bn. The interlinkages between European banks, and the overdependence on banks rather than capital markets for raising funds in the EU, suggest that a banking crisis, or even the threat of one, could have a significant negative shock. Meanwhile, with sovereign credit ratings at risk of a further downgrade, European sovereign bonds may become less attractive, boosting demand for gold.

These financial challenges are exacerbated by political ones, with a series of national elections and referenda due to be held across Europe before the end of next year. Presidential and general elections in France, Germany and the Netherlands (all countries that are fighting rising anti-EU sentiment) and a referendum in Italy later this year that could topple President Matteo Renzi provide ample opportunity for confidence to suffer further setbacks, which may have an impact on gold demand.



Hilary Clinton and Donald Trump go head to head in the US Presidential election later this year

US election risks

The US election campaign has raised concerns over what a Trump presidency would mean for the US and global economies. Talk of trade wars, protectionism and confrontation over currency values, in particular with China, mean a period of uncertainty may be ahead. It is not clear whether, if elected, Trump would be as confrontational as he has been during his campaign. Domestically, however, Trump has outlined an economic plan that would see higher borrowing, a larger debt-to-GDP ratio, a weaker dollar and interest rates that are lower for longer. All of this is likely to be felt in financial markets.

These cyclical factors have played a large part in gold demand and prices this year, with gold ETFs posting a record 568 tonnes of demand in the first half of the year. This demand has been concentrated in Europe and the US, reflecting uncertainty in those markets. The size of the ETF market in China, though growing quickly, is still relatively small. The majority of demand there is for physical gold could increase as China's economy slows down and other investments prove more risky (although gold demand could be hit by weaker consumer spending as economic growth falters).

Emerging market outlook

In India, which vies with China for the position of the largest gold market, demand tends to track confidence rather than pessimism. Markets were rattled earlier this year when the governor of the central bank, Raghuram Rajan, announced that he would not serve a second term. The rupee weakened against the dollar and increased the price of gold in Indian markets by an additional 2 percentage points relative to the dollar price, contributing to weak jewellery demand. Rajan's efforts to tame inflation, resist political pressure to cut interest rates, maintain the independence of monetary policy and address India's unhealthy bank balance sheets provided a period of stability and confidence. This helped India maintain growth of around 7% over the last few years, boosting household incomes and attracting foreign investors – India is now the largest destination for FDI in the world. The appointment of Urjit Patel as Rajan's successor, who supported these policies as deputy governor, helped to reassure markets of continuity and stability, and helped strengthen the rupee.

This should be positive for jewellery, one of the largest sources of gold demand. With demographic trends expected to result in an estimated 15 million weddings a year in India over the decade, demand for gold, which features prominently in such ceremonies, will be heavily influenced by the country's economic prospects.

India's positive growth projections could however be upset by higher prices for oil and other commodities, of which India is a large net importer. Private consumption, including gold demand, has been boosted by falling inflation over the last few years, which is, in part, a result of lower import prices. As a net importer, China has also benefitted from this trend. However, oil prices have risen above \$50 a barrel several times this year and remain substantially higher than their January low. Along with a stronger dollar as US interest rates rise, this could mean that higher dollar-denominated commodity imports reduce Indian and Chinese spending power, which will impact on gold. A rise in oil prices could, however, see increased gold demand in the Middle East, which has fallen substantially over the last year.

Two long-term trends

Longer term, two trends will be important factors for gold's performance. The first is that the low interest rates, disinflationary pressures and low yields that have made gold an attractive investment are creating strains for institutional investors such as pension funds and insurance companies. While gold may offset some of the nominal losses of low or negative yields, its lack of return – and the vulnerability of prices to market sentiment – mean it is not a long-term solution for those kinds of investors.

Second, investors that piled into gold to protect themselves from negative yields may have a shock when yields and interest rates eventually rise and they find they are holding large amounts of non-yielding assets at a time of rising costs. The outlook for gold therefore faces substantial risks. As investment takes up a growing share of gold demand, especially from hedge funds, ETFs and others, prices may become more volatile and more sensitive to monetary policy announcements. US investors pulled over \$600mn from commodity funds in the last week of August alone in anticipation of the next rise in US interest rates. Meanwhile, there are substantial concerns over the effectiveness of future monetary policy stimulus in the EU, Japan and UK, given the already low rates and the shortage of assets for central banks to buy in any further quantitative easing programmes – in August, the Bank of England failed to find enough gilts to fulfil its purchase quota.

“The interlinkages between European banks, and the overdependence on banks rather than capital markets for raising funds in the EU, suggest that a banking crisis, or even the threat of one, could have a significant negative shock.”

As global monetary policy divergence continues, the dollar price of gold is likely to rise relative to other currencies, increasing the cost and weighing on jewellery demand in markets such as India, China and the Middle East. The uncertainty of the global economic context, which makes gold an attractive investment, thus carries with it many risks that could negatively affect overall demand. The growing demand for gold as a safe-haven asset is neither a good sign for the global economy nor necessarily for the long-term prospects of gold itself.



Ben Robinson is an Economist at the Official Monetary and Financial Institutions Forum in London, where he is responsible for research

and analysis on issues relating to the global economy. His main focus is on international monetary policy, emerging markets, and public sector asset management, and is responsible for the Global Public Investor annual report on sovereign wealth funds, central banks and public pension funds. He holds a Master's degree in International Political Economy from King's College, London.

L:O:X:O:D:O:N:T:A gold minted bars

Loxodonta africana: African bush elephant



RAND REFINERY

Rand Refinery (Pty)Limited, P.O.Box 565, Germiston, 1400, South Africa. www.randrefinery.co.za

Links Between the Chinese and International Gold Prices

By Neil Meader, Research and Consultancy Manager, Metals Focus



In order to confirm and even quantify any linkage, we examined patterns between the Shanghai Gold Exchange (SGE) premiums and the LBMA AM gold price. First, we calculated simple correlations over long periods as well as rolling one-week, two-week and one-month periods. We estimated correlations of the daily change in the LBMA AM gold price against:

- (1) percentage SGE premiums (versus the LBMA AM gold price)
- (2) percentage deviations of the SGE premium over its long-term mean (January 2005 through to August 2016), and
- (3) the daily change in the premium.

We also examined correlations between daily price change and premiums lagged by one day.

“If there is a robust price premium on the Shanghai Gold Exchange, it is logical to expect that this will be positive for the international price, as bullion gets sucked into China.”

As US monetary policy and nagging tail risks continue to take centre stage, it is tempting to view gold’s fundamentals, among them Chinese demand, as irrelevant to gold price moves. A review of historical price data, however, suggests that China’s appetite for gold can influence the price.

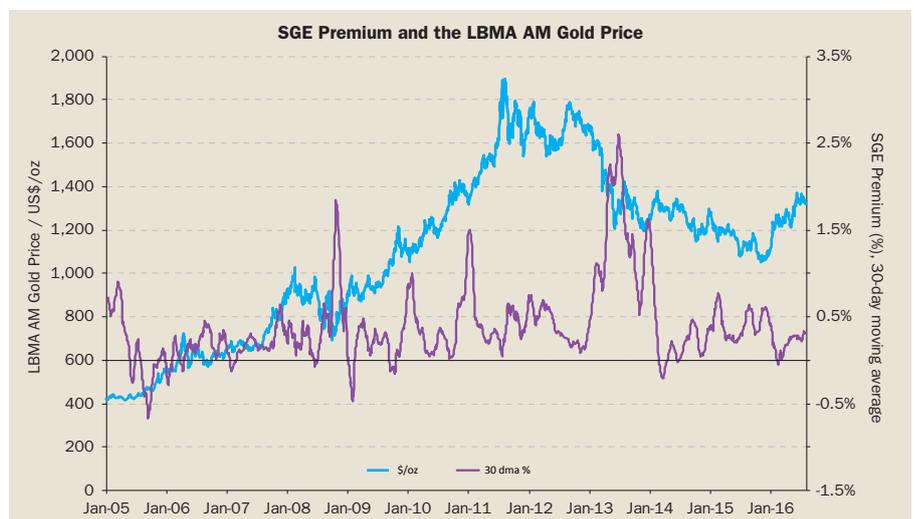
Since it started liberalising its gold market, China has grown to become both the world’s biggest producer and the world’s biggest consumer of gold. This has had a profound impact on the structure of the global bullion market. Lists of the major market players and principal vaulting and refining centres, as well as traditional physical flows, have all changed dramatically. What is less clear is the impact this transformation has had on the dynamics of the gold price. Our analysis of historical trends in local and international prices below illustrates that, while modest, there is evidence of Chinese demand having had a positive impact on the international price.

Links Between SGE Premiums and the International Price

If there is a robust price premium on the Shanghai Gold Exchange, it is logical to expect that this will be positive for the international price, as bullion gets sucked into China. Similarly, if there’s an uncomfortable discount on the SGE, other things remaining equal, it should weigh on the international price, as bullion imports into China dry up

and some gold may even find its way out onto the world market. Finally, investor attitudes towards gold could be coloured by perceptions of demand strength or weakness of the world’s largest market.

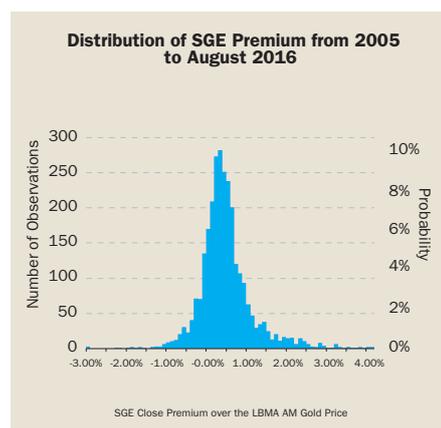
The results were disappointing. Over longer periods, the correlations between daily price changes and same-day premiums were in fact negative. One explanation for this could be the reverse of the relationship we are investigating: namely, the negative impact of rising prices on Chinese demand.



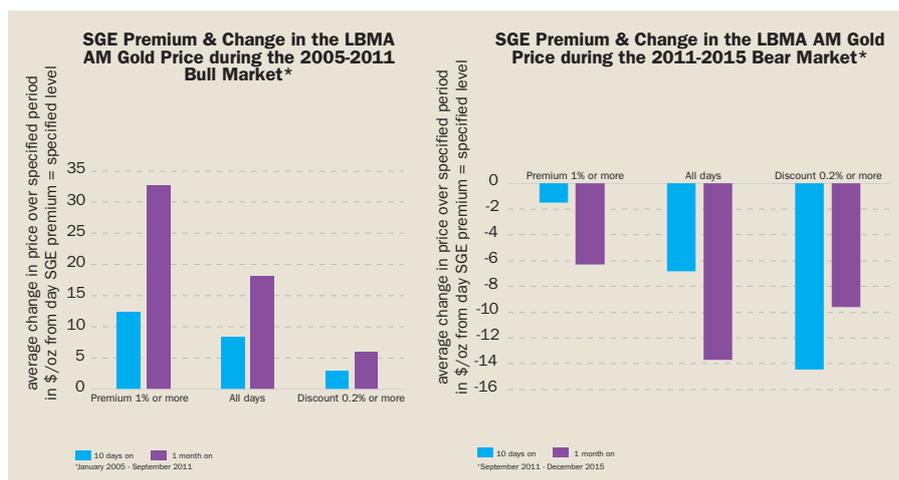
The correlation coefficients we calculated between price changes and the previous day's premiums were positive but very low and statistically insignificant. Rolling correlation coefficients were more in line with our thesis, being generally positive. However, for the most part, they were statistically insignificant.

“The results of these estimations suggest that SGE premiums have a modest but positive and statistically significant impact on future gold price moves.”

We then investigated the marginal impact of premiums on prices in the context of a more complex model. Over the past ten years, the most consistent driver of gold price moves has been the US dollar and, as such, we decided to include it in the model. Moreover, we considered the possibility that the impact of Chinese demand and SGE premiums on gold prices comes with a lag. Intuitively, a high premium today can trigger increased shipments of bullion to China over the next few days, which in turn can affect the price. We therefore attempted a series of regressions of daily gold price changes against changes in the dollar index and lagged percentage SGE premiums. The results of these estimations suggest that SGE premiums have a modest but positive and statistically significant impact on future gold price moves.



We finally examined possible links between stronger than normal premiums and discounts, and price moves. Specifically, we looked at average price changes for the LBMA AM gold price, following days when the SGE price was at a premium of at least 1% or a discount of at least 0.2% compared to the LBMA AM gold price. The two thresholds were chosen as they represent one standard deviation from the mean. This was done for



two contrasting periods – the earlier bull run (which for this exercise, we have delimited at 4 January 2005 and 5 September 2011, when the price topped out at \$1,896.50) and the more recent retreat (which we have taken as 6 September 2011 to end-2015).

The results of this exercise also support a positive link between SGE differentials and the LBMA AM gold price. For example, during the bull run, the gold price on average rose by \$33 one month on from days in which the SGE premium was 1% or greater, but by only \$2 one month after days that had seen an SGE discount of 0.2% or more. China's influence was also apparent when the bear market had taken hold. For instance, on average, the gold price only fell by \$1 within a 10-day window after days when the SGE premium was 1% or more, but declined by \$14 following discounts of over 0.2%.

“The two thresholds were chosen as they represent one standard deviation from the mean. This was done for two contrasting periods – the earlier bull run and the more recent retreat.”

Conclusion

To conclude, although the relationship is far from straightforward, historical data points to a positive link being in place between the international price and developments in China, and so monitoring SGE differentials remains important. This is particularly the case if, as we believe, investor sentiment can be influenced by the underlying physical market. That certainly appears true at present, with some participants' enthusiasm seemingly cooled by India's currently sluggish bullion imports and the hefty loco-Mumbai discount.



Neil Meader is the Research and Consultancy Manager at Metals Focus.

The role centres on the creation and supervision of the company's main consultancy

contracts and the top-down review of all its precious metal supply and demand statistics. Prior to that, he ran Metallis Consulting Limited, an independent precious metals consultancy, which, among other studies, produced the first truly comprehensive report on country-level jewellery and retail investment gold stocks.

Before that, he was Head of Precious Metals Research & Forecasts at Thomson Reuters GFMS, where he was ultimately responsible for the unit's supply/demand numbers and price forecasts. This marked the culmination of 12 years at GFMS, where he worked his way up from junior analyst to research director. During that time, he was responsible for the field research in Italy, France, Germany and Canada plus aspects of the United States, Mexico, the Middle East and India.

His early career saw him working as an analyst for soft commodity trading companies and, prior to that, for one of the oil majors. He has a degree in economic history from Exeter University, which featured a dissertation on grain trading.

1 We used the difference of the US\$/oz equivalent of the SGE closing price to the LBMA AM gold price, the latter being the international reference price that is nearest in terms of time to the SGE close.

Atomising Broadens the Realm of Precious Metal Utility

By Roberto Guidali, CEO, Italmimpianti Orafi S.p.a.



Atomising creates fine-grade precious metal (PM) powders which have made a compelling impact on world markets. It liberalises alloy composition for PM refining and produces powders for many distinct industrial applications. PM powders have triggered the creation of heretofore unimagined products, and new industries have been forged with slashed costs and bolstered profits.

Powder Metallurgy – The ‘Wonderland’ of Precious Metals

Water and gas atomisation (WA and GA respectively) have broadened the range of PM products, advancing from ‘standard’ ingots, bars, medals, etc. to atomised powders. The value of PM ingots (and their jewellery) depends on the world market for that PM, and on the fluctuations in the demand for them. As the capacity to form new alloys and chemical compounds from a PM powder develops, then in tandem, the PM takes on an elevated and stable value.

The production of PM powders by WA permits the broadening of the composition of raw gold alloy to be refined directly by wet chemical processes, i.e. by one process rather than by two, making it faster, and saving energy, chemicals and manpower. Now we can directly refine gold alloys with up to 20% silver. For GA-formed powders, the vast quantity of their industrial applications has led to a stable demand for those PMs.

The use of atomising technologies permits the synthesis of a variety of alloys. It is now possible to fabricate components that otherwise would decompose or disintegrate. All considerations of solid-liquid phase changes can be ignored, so powder processes are more flexible than casting, extrusion or forging techniques. For example, we can now have a controlled and uniform porosity of solids.

“ The use of atomising technologies permits the synthesis of a variety of alloys. ”

PMs in the form of metals, alloys and chemical compounds have found wide utilisation in metallurgy, glass and ceramic production, nuclear power, lighting, television and laser techniques, the chemical industry, medicine and agriculture.

State-Of-The-Art of PM Powder Production

There are four fundamental procedures that constitute the state-of-the-art of PM powder production today.

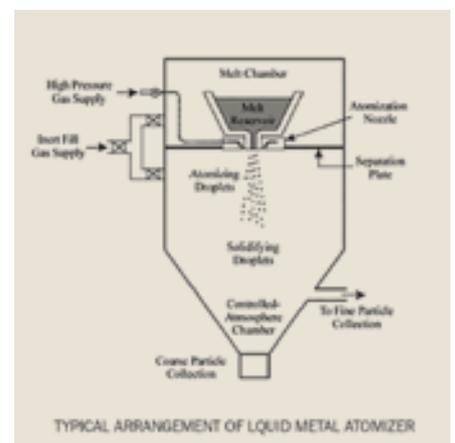
- Mechanical methods: Comminution of solids
- Chemical and electrolytic methods: Reduction of metal oxides and electrolysis
- Physical-chemical methods: Gas phase precipitation and plasma technologies
- Other methods such as mechanical alloying and spray granulation.

Most of these processes generate significant problems:

- 1) For chemical processes:
 - a) non-spherical particles
 - b) greater porosity
 - c) impurities
 - d) the need to filter and wash the powder.
- 2) For plasma technologies:
 - a) the difficulty in controlling the size
 - b) the limited production
 - c) the expense.

Powder Production By Induction Melting And Water/Gas Spraying (Atomisation)

In atomisation, the molten metal (melt) produced by induction melting furnaces is bombarded with ultra-high speed jets of water or gas. The high energy of the jets destroys the liquid surface of the melt, effecting a transfer of energy which results in the fractioning of the melt into droplets and then into powder.



When a gas jet is taken to supersonic speeds, we can see a parallel situation that we are all familiar with. Turbulence is created when a supersonic airplane 'breaks' the sound barrier, i.e. goes faster than the speed of sound (approximately 1,235 km/hour), and we hear a 'sonic boom' which is a physical expression of that turbulence. Some GA processes in fact blast the melt with a supersonic gas jet to achieve that more intense turbulence, yielding a finer powder.

The design of the atomising plants varies greatly. Generally, there is a tundish crucible melting chamber equipped with induction heating. By definition, all induction heating is without a flame. The chamber may have an atmosphere of inert gas, with a pneumatic stopper closed orifice at the bottom. When the stopper is elevated, the melt flows downwards into a second crucible which diffuses the liquid into a large collection bin whose size is consistent with that of the diffusion. Then nozzles introduce jets of high-speed water or gas at a short distance from the falling melt as it leaves the second crucible. It is also possible that there is no second crucible and the jets impinge the melt as it escapes the first crucible. The homogeneous impact of water or gas on the melts results in the homogeneous size of the particles of the resulting powder. This is very different from the results of powder created using other technologies, e.g. plasma, which have no control over the size of the powder particles. Impingements during atomisation influence particle size, particle size distribution and particle shape.

The method of collecting the powder varies with water or gas atomisation.

Water Atomisers (WA):

When the diffused stream of melt is blasted by high-velocity jets of water, the resulting powder cools before it reaches the bottom of the collection bin. The powder solidifies faster than by gas atomisation. The faster the solidification rate, the bigger the particles. The use of WA also results in the irregular form of the powder particles and a wider particle size distribution, resulting in greater

porosity. With greater water pressure, the particle form degrades considerably to greater irregularity. Particles of WA powder generally have a pronounced uneven surface compared to GA powders. The combination of irregular shape, surface roughness and porosity is an important feature of WA powders.

This procedure is less expensive. For high-yield, low-cost production and safe engineering, WA is usually preferred over GA, as long as the powder characteristics are compatible with the application.

WA is used for the commercial production of copper, copper alloys, nickel-based alloys and zinc powders as well as bronze powder. WA-produced powders are used in alloys for dental work, electrical contacts and brazing pastes. Significantly higher water pressures are used to manufacture the finer powders used for metal injection molding (MIM) processes, binders in diamond tools, sintered bearings, sintered filters, corrosion-resistant paints, coatings and conductive pastes.

The main limitation of WA is powder purity, especially for metals and alloys inclined to oxidation. However, owing to the higher cooling rate of the melt, the average thickness of surface oxides is similar to that in GA powders. This is realised, in particular, in WA aluminum alloys.

Gas Atomisers (GA):

In GA, the melt is dispersed by a high-velocity jet of air, nitrogen, argon or helium. This atomiser design aims to contact the melt stream with the gas close to the gas jet exit plane where the highest velocities exist. It leads to efficient break-up of the liquid, resulting in finer powders.

The use of GA results in the regular spherical form of the powder particles and there is a tighter particle size distribution. The relatively low cooling rates intrinsic to GA result in fine-scale microstructures and so the surface of GA particles is generally smooth, resulting in little or no porosity. There is a notable absence of impurity effects and surface oxide films.

This powder is used in alloys for 3D printing and electronics, etc. GA is used for the commercial production of powders of copper, copper alloys, aluminum and its alloys, magnesium, zinc, titanium, titanium alloys, nickel-based alloys, cobalt-based alloys, lead, tin, solder, precious metals, refractory metals, beryllium, etc. Specialty alloys based on aluminum, copper, nickel, cobalt and titanium can undergo GA to exacting compositional specifications.

The quantity of GA powders produced worldwide is far less than that of WA powders, but in market value terms, they are about equal.

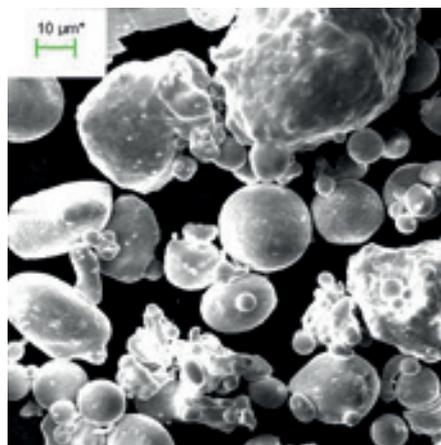
The Future Of PM Powders

The future of alloys and chemical compounds attained from PM powders is radiant. It signals an imminent and substantial growth in profits for those who have made investments in PMs, far beyond the equivalent value of PM ingots in terms of weight. Possibilities for the use of these powders, far from being exhausted, are being briskly expanded as properties of new alloys and compounds are studied, a true wonderland of opportunity.

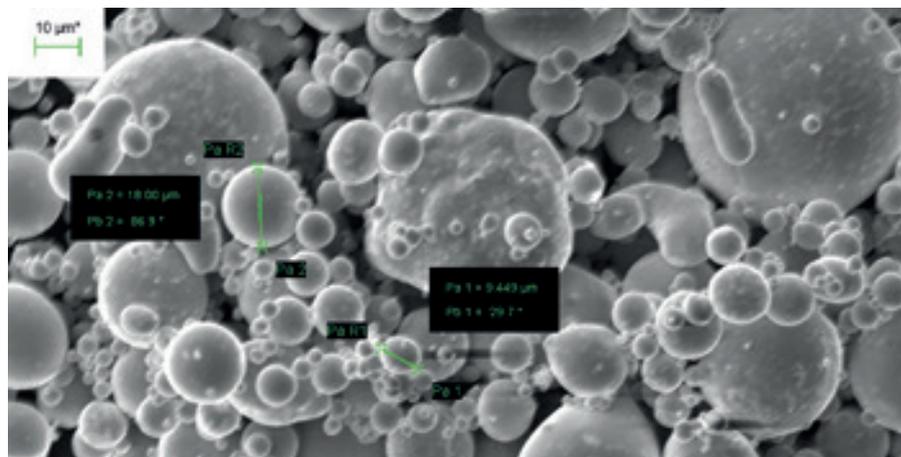


Dr Guido Guidali holds a M.S., Ph.D. in Chemical Engineering, and specialises in work on PM refining processes and technology as well as

plasmas deposition techniques. He is the current CEO of Italmimpianti Orafi in Arezzo, Italy. He worked extensively in the field of Precious Metal refining in Switzerland with Argor-Heraeus Group, one of the world leaders in the field. He also worked in plasma PVD applications for coatings and powders manufacturing. Since his return to his native Italy in 2008 he has applied his experience in both administrative skills and technical knowledge to help Italmimpianti achieve international prominence.



Particles of Powder Formed With Water Atomisation



Particles of Powder Formed With Gas Atomisation

The Singapore Bullion Market

By Sunil Kashyap, Chairman, and Albert Cheng, CEO, of the Singapore Bullion Market Association (SBMA)



This year, the annual LBMA/LPPM precious metals conference will be held in association with the Singapore Bullion Market Association (SBMA). In this feature, Sunil and Albert chart the growth of the bullion market in Singapore and the role the SBMA has played in helping to shape it.

Rising Global Demand and Singapore's role

Asia is the driver of the rising demand for gold, and Singapore is located at the heart of this trade flow. Global investment in gold has more than doubled since 2009 to 1,377 tonnes in 2013, with East Asia and the Indian subcontinent accounting for more than 70% of global physical bar investment. In addition, about 50% of the world's scrap gold comes from Asia (source: Thomson Reuters).

The physical allocation of gold in the portfolios of wealthy investors has been growing, and Singapore has the largest pool of private banking assets in Asia, with \$470bn in 2015 (source: Deloitte). Private and institutional investors are also demanding that their physical assets be stored in a neutral and alternate location, and Singapore is well-placed to accommodate this demand. Singapore's innate attributes of neutrality, economic and political stability, excellent connectivity and reputation as an important centre of finance have long appealed to global traders in precious metals. In addition, it has a strong, efficient and transparent legal and judicial framework.

Domestic Growth

To capitalise on the growing global demand and to leverage Singapore's strengths, International Enterprise (IE) Singapore, the Singapore government's trade promotion agency, began consulting the bullion industry in 2012 about making the country a hub for bullion activities in Asia. The initiative would build up Singapore's bullion refining, trading, clearing, storage and logistics capabilities for it

to service nearby countries, which includes two key demand centres, China and India, as well as the rest of ASEAN.

The SBMA regularly offered market knowledge and advice to IE Singapore in developing Singapore's bullion strategy, and later the Inland Revenue Authority of Singapore (IRAS) and Singapore Customs during implementation. Three strategies were identified and executed in order to create a more conducive business environment to nurture this concept, namely,

- Goods & Services Tax (GST) exemption on investment grade precious metals – gold, silver and platinum, effective from 1 October, 2012.
- Anchoring a first-class globally accredited gold refinery – Metalor Singapore began operations on June 26, 2014.
- Create a trading marketplace that includes price discovery, physical settlement and storage. The SGX Kilo Gold Physical Contract and ICE Kilo Gold Futures were launched in 2014 and 2015 respectively.

Recognising that investment grade precious metals (IPM) are essentially financial assets just like other actively traded financial instruments like stocks and bonds, and to facilitate the development of IPM refining and trading in Singapore, the government announced in early 2012 that GST would be exempted from October 1, 2012.

Storage facilities for precious metals grew, with Brinks beginning operations at its vault at Singapore Freeport on June 26, 2014. Subsequently, storage facilities by bullion

banks and secured logistic companies also expanded, and the infrastructure for the precious metals sector in Singapore began to take shape.

At the 2014 London Bullion Market Association (LBMA) Bullion Market Forum, the Singapore Trade and Industry Minister Lim Hng Kiang announced the Singapore Kilobar Gold Contract, the first wholesale 25 kilobar gold contract to be offered globally. A joint initiative of IE Singapore, the World Gold Council, the Singapore Exchange and the SBMA, the contract introduced centralised trading and clearing of a physically-delivered gold contract in Singapore. It comprises a series of six daily contracts, which gives buyers physical access to competitively-priced kilobars. This was enhanced by the launch of the ICE One-Kilo Gold Futures on Nov 17, 2015.

The Singapore Market

History

Since the 1960s, Singapore has been a gold distribution centre for Southeast Asia, with its gold largely sourced from London and Zurich. In 1969, in the wake of a global evolution of the free gold market and a two-tier price structure following the collapse of the London Gold Pool, Singapore established an over-the-counter (OTC) gold market. However, from 1969 onwards, only non-residents could perform gold transactions in Singapore, and banks and bullion dealers trading gold required authorisation from the Singapore Government. Beginning in 1973, Singapore residents were finally allowed to trade gold, and the gold dealer licensing requirements were abolished.

In November 1978, a group of Singaporean bullion dealing banks and brokers formed the Gold Exchange of Singapore (GES). Founder member banks included United Overseas Bank (UOB), N.M. Rothschild and Overseas Chinese Banking Corporation (OCBC). The GES listed two physically deliverable gold futures contracts, a 100oz and a 1kg. The GES also established its own clearing house, the Singapore Gold Clearing House, whose clearing members were OCBC, UOB, Overseas Union Bank (OUB), DBS Bank and the Bank of Nova Scotia. The GES gold contracts saw strong initial interest but trading volumes had tailed off by 1983.

In late 1983, GES was integrated into a new financial futures market – the Singapore International Monetary Exchange (SIMEX), a collaboration between GES and the International Monetary Market (IMM), a division of the Chicago Mercantile Exchange (CME).

In 1984, SIMEX launched a cash-settled 100oz gold futures contract, based on loco London prices. However, this contract also saw a gradual demise in demand and ceased activity by 1996, which led to it being phased out in 1997. SIMEX then merged with the Stock Exchange of Singapore in 1999 to form the current multi-asset Singapore Exchange (SGX).

Singapore's role as a redistribution centre for the region reached record levels in 1992, when gold imports reached a total of 414 tonnes (almost half of Asia's total consumption). Since then, imports have declined as a result of market liberalisation measures adopted by some of its immediate neighbours.

Consumption by domestic jewellers had, for many years, hovered around 18-22 tonnes at saturation level. The introduction of a 3% GST in 1994 softened the demand for gold products. In 2003, GST was increased to 4% and then to 5% in 2004. In 2007, it was increased further to the current level of 7%.

Characteristics

- The Singapore market is evenly split between gift giving and self-adornment, with 22 ct as the dominant caratage. Among consumers aged 25 to 35 years, who have a strong preference for more contemporary designs, 18 ct gold jewellery has been growing in demand. However, there has been a recent resurgence of interest in 24-carat pure gold due to marketing and a surge in gold prices.
- Over 50% of gold products are bought from traditional goldsmiths, but the retail jewellery trade is very conservative and fragmented, dominated by a number of chain stores. In the last 20 years, manufacturers have been relocating their factories from Singapore to Malaysia or China to take advantage of lower production costs. Currently, more than 95% of products in the market are imported, mostly from China, Malaysia and Indonesia.
- Investment-grade bars and coins are exempt from GST, while jewellery is subject to 7% GST on both local and imported products.
- Design is the key factor among buyers under 34 years old, while price is of greater importance to older buyers.
- The peak period of demand for gold each year is between December and March. Sales tend to peak during the Chinese wedding season and during celebrations like Christmas and Valentine's Day.
- Many traditional and family-run goldsmiths have closed down over the past 20 years, giving way to major retailers like Lee Hwa/Aspial Group, Soo Kee Group, Poh Heng and others, who have a combined total of more than 100 outlets located at high-traffic locations and major shopping malls.

Role of the SBMA

The SBMA was formed in 1993 with an original membership base of 16 companies from the gold industry. With fears that the GST scheme to be introduced on April 1, 1994 would kill the physical bullion business and the country's role as a physical hub for bullion in ASEAN immediately, JP Morgan's head of bullion, Mr. Tim Gardiner and World Gold Council regional CEO Mr Kerr Cruikshank felt it was necessary for a single voice to represent the bullion market. The SBMA was successful in getting the Singapore government to lift the GST for re-exported gold bars.



The SBMA Management Team, with Sunil and Albert featured in the centre of the front row

The association was relatively inactive in the late 1990s due to the departure of key personnel within the gold industry and the closure of gold desks in some of the bullion houses and banks. However, there has been an increase in the number of bullion market initiatives and activities since the 2006 financial crisis, with many players that exited the market prior to 2006 becoming active again.

Until 2012, the SBMA remained an informal association and only met occasionally for business networking, but with the Singapore government aiming to establish Singapore as a gold hub, the SBMA began developing its competencies to become the central body for the bullion industry. It formally adopted this role in early 2015, under the leadership of Mr Ng Cheng Thye. At its annual general meeting in 2015, a revised constitution was passed to incorporate a three-tier governance structure, with the Management Committee as the core of the Association, guided by an Advisory Board and supported by a Secretariat under the leadership of a CEO and his team.

Today, the SBMA is now looking to develop Singapore as the ASEAN hub for global players in the physical bullion market. This includes providing vaulting/storage facilities as well as developing a clearing mechanism for gold kilobars and harmonising procedures and industry standards specific to the Singapore and ASEAN market, such as the SBMA Good Delivery List, the Singapore Kilobar Gold Contract and ICE Kilo Gold Futures.

The SBMA also hopes to create a more harmonised tax regime, regulatory infrastructure and industry standards among ASEAN jurisdictions, including legal

documents, testing, assaying and operating procedures. The SBMA wants to look beyond the immediate horizon to further develop the Singapore and ASEAN gold markets through advocacy and research activities.

About the SBMA

The SBMA is a non-profit organisation currently representing 35 key stakeholders from the precious metals industry in Singapore and beyond, including bullion banks, exchanges, refineries, bullion merchants and secured logistics support companies. Its mission is to develop the bullion market in Asia, including setting standards, drafting promotion, developing best trade practices and documentation, driving thought leadership and enhancing the professionalism of the industry.

The SBMA plays a pivotal role in market development in Singapore and beyond, connecting regulatory bodies and industry players, as well as promoting the Asian bullion market internationally. Its international partners include the LBMA, with whom it partners on various initiatives, including this year's annual LBMA/LPPM conference. The SBMA aims to have widespread representation in ASEAN and beyond, and is actively recruiting members. We welcome your participation, opinions and enquiries. Please contact CEO Albert Cheng at albert.cheng@sbma.org.sg or Executive Director Hawk Namiki at [hawk.namiki@sbma.org.sg](mailto:namiki@sbma.org.sg) for more information.



Albert L. H. Cheng,
CEO of the SBMA and
Advisor to the World Gold
Council (WGC). Albert retired
from the WGC at the end of
March 2015 after many years

of service, but was then appointed as an Advisor to the WGC with effect from April 1, 2015. He has been an Advisor to the International Advisors Committee of the Shanghai Gold Exchange (SGE) since its inception in 2002. In November, 2015 he was also appointed as the honorary CEO of the SBMA.



**Sunil Kashyap is the
Managing Director, Head of
Asia, ScotiaMocatta, Asia
and Chairman of the SBMA.**

He joined Mocatta Bullion in 1996 which was then taken over by The Bank of Nova Scotia in 1997. He is primarily responsible for managing The Bank of Nova Scotia's metals business in Asia covering operations in Hong Kong, Singapore, China, India and Dubai. He is a member of the International Advisor's Committee of the SGE and was a member of the inaugural Gold Committee of the Dubai Metals and Commodity Exchange. He holds a Master's degree in Business Administration from Cornell University, Ithaca, New York and is an engineering graduate from IIT, New Delhi.

The conference by the industry for the industry

The LBMA/LPPM Precious Metals Conference 2017

Hotel Arts
Barcelona
15-17 October, 2017
Save the Date!



New LBMA Members' Portal – Bringing Members Closer

By Ed Blight, Operations Director, LBMA



The LBMA is launching a new online Member portal to enhance communication with and service to its Members. The portal launches in early 2017 and will use the UK's leading membership management solution, Silverbear Customer Relationship Management (CRM) technology.

Member Benefits

The new LBMA Member Portal will allow Members to manage their Membership through a self-service portal. The portal will be a one-stop shop for all Members needs including subscriptions to LBMA events, publications, billing, contact information and much more. In addition to the existing services, the LBMA Executive is also developing a range of services, such as the newly launched Regulatory Briefings. Once logged on, Members can tailor their subscriptions and let the LBMA team know what they are most interested in. This in turn can help to develop content to fit Members' needs.



Member & Good Delivery application processes will become an online service with non-members able to access the portal to apply for Membership to the Association or be accredited for Good Delivery. Membership reclassification applications will also be managed through the portal. Being a fully

integrated system means that all transactions or activities undertaken will be automatically fed into the Silverbear CRM Solution, so that there is an up-to-date, single profile of the relationship. Bringing Membership and Good Delivery applications online will mean enhanced efficiency for both the LBMA Executive team as well as applicants. Applicants will be able to view the status of their application at any time by logging in to the secure portal.

Organisational Benefits

The LBMA's ability to design and deliver greater efficiency into its communications and business management is key to serving the market in the most effective way. The strategic intent of the LBMA has always been to deliver 'best in class' membership engagement, and the Silverbear CRM solution provides us with the 21st century technology to do that in a meaningful way. Setting the conditions for success has required the application of *Lean Principles* to ensure that customer (member) value and benefit remains at the forefront of thinking. Value and benefit to the membership has been defined through the vision of a 'one stop' portal to manage membership, event registrations and two-way engagement between the LBMA and its members. To do this has also required a fundamental review of the LBMA's business processes in order to define capability gaps to fill and inefficiencies to eradicate. The 'future state' for the LBMA requires a business support system that can deliver the following benefits and solutions to both its members and the association:

- Efficient contact management
- Workflow-based membership management
- Workflow-based LBMA governance and committee management
- Integration with the existing LBMA financial management systems
- Workflow-based integrated event registration, invoicing, payments, planning and delivery
- Integrated communications and public relations workflow processes
- A workflow-based regulatory, standards and due diligence management capability for the market
- Future-proofing to integrate existing and new business processes, systems, web services offerings and portal-based services.



Solution and Delivery Partner

From these high-level capability statements, 204 business requirements were defined to form the basis of a tender document against which potential suppliers submitted proposals. Since then, the LBMA Executive has reviewed a number of submissions and consulted with several suppliers. After an extensive due diligence process, it was decided to partner with Silverbear. Its system is built on the framework of Microsoft Dynamics CRM and is the UK's leading membership management solution. Additionally, it is uniquely awarded with Microsoft's Certified for Microsoft Dynamics (CFMD) accreditation.

Silverbear Limited

Silverbear Membership is the UK's leading membership management solution. Built to address the needs of the mid-market, Silverbear has a proven 'product-led' approach to sales engagement and solution delivery. This approach reduces the risks often associated with CRM build and deployments. Silverbear first opened its doors in 2000 as a CRM system integration and development house. During its formative years, it quickly gained a reputation for working with large, not-for-profit, organisations and helping them to solve their specific membership relationship challenges. Silverbear is now a thriving, award-winning CRM solution company which is 100% focused on meeting the challenges of the membership and trade association industries.

Goes Live in Early 2017

The journey towards delivery of the system and its associated benefits began on 12 July 2016 and the LBMA has a dedicated team participating in the core development of the product. Final integration work is expected to commence in late November with the aim of going live in early 2017, in time to support all membership renewals. It's also anticipated that the first event to be piloted through the Members Portal will be the LBMA Annual Party 2017. There will be further communications to support members throughout the portal development and implementation, but the intent is to deliver a seamless transition experience to portal use.

“Final integration work is expected to commence in late November with the aim of going live in early 2017.”

The LBMA team will be reaching out to Member contacts for their feedback during the testing as well as the launch in 2017. Please contact us if you have any thoughts, concerns or suggestions as to how we can improve this offering. We look forward to working even closer with the Membership in how we design the service to suit the Market's needs.



Ed Blight is the LBMA's Operations Director. He is responsible for directing and overseeing the general administration of the Association including overall responsibility for issues relating to Finance, Human Resources, IT systems, contractual arrangements, commercialisation opportunities and Office Management.

1 The core idea is to maximise customer value while minimising waste. Simply, lean means creating more value for customers with fewer resources. Lean management is an approach to running an organisation that supports the concept of continuous improvement, a long-term approach to work that systematically seeks to achieve small, incremental changes in processes in order to improve efficiency and quality.

Regulation Update

By Sakhila Mirza, LBMA General Counsel

Responsible Gold Guidance (RGG)

It has been four years since the LBMA launched its RGG. The LBMA RGG extends the OECD Gold Supplement for Refiners and builds on existing Anti-Money Laundering and Know Your Customer management systems and auditing practices. It also makes the voluntary OECD Guidance system mandatory for all LBMA Good Delivery gold refiners wishing to be accredited for the London Bullion Market. Reports under the first wave of the 2016 Responsible Gold audits are being reviewed.

This year saw the release of Version 3 of the LBMA's Third-Party Auditor Guidance to bring it in line with the amendments to Version 6 of the LBMA RGG, which was issued in 2015. These changes represent efforts toward a more transparent and more robust auditing process, and include stricter timeframes for corrective actions and the confidential review of more detailed information captured in the new documents now required under deliverables.

Both refiners and auditors have been working diligently with the LBMA to ensure that the implementation of the RGG guidelines continues to be successful. Compliance

with best practices is strongly encouraged. Refiners have made excellent progress to further improve their internal processes and procedures, and to be proactive in complying with the updated RGG provisions. Failure to comply with the RGG has led to refiners being transferred to the Former List. In parallel, the LBMA has been working hard to further strengthen the Auditor Review Programme.

Brexit Implications

Almost three months following the result of the referendum vote that saw the UK vote to leave the European Union (EU), the implications of that decision remain unclear. Insofar as the UK retains domestic regimes based on those in the EU, it is widely hoped that the EU Commission will reach a conclusion of reciprocal arrangements to EU requirements regarding most of the UK financial services regime.

Whilst we await further developments, the domestic markets continue to prepare for the implementation of upcoming European regulations. MiFID II, Market Abuse and Benchmark Regulations will all continue to apply in the UK and will need careful planning and considerable resources.

In the meantime, there remains some uncertainty and market participants can only speculate as to the direction that the UK-EU negotiations will take.

Market Abuse Regulation (MAR)

The effective implementation date of 3 July 2016, saw significant developments in the financial market under the new MAR regime. The purpose behind the new regulation, which replaces the existing Market Abuse Directive (MAD) from 2003, is to ensure the integrity of the financial markets and improve the standards of protection for investors to restore confidence in financial instrument dealings. The changes include various developments related to disclosure information, insider lists, managers' dealings and market manipulation. The outcome of the Brexit vote does not affect implementation of MAR. The main concern to LBMA members remains the interpretation of certain terms to help determine the scope of the regulation. In the meantime, firms will need to review their systems and controls identifying insider dealing and market manipulation as well as the identification of suspicious activities and reporting.



THE MOST SECURE BULLION COINS IN THE WORLD

With unparalleled security featuring finely engraved radial lines, ultra-precise laser marks and the digital signature of Bullion DNA technology, Gold and Silver Maple Leaf bullion coins from the **Royal Canadian Mint** continue to be the preferred choice of investors around the world.

Our innovative new Bullion DNA Reader makes it easier to use those features to facilitate the authentication of our 99.99% pure bullion coins.

Protected by Bullion DNA technology, Gold and Silver Maple Leaf coins from the Royal Canadian Mint are the most secure bullion coins in the world.

Learn more: mint.ca/bullion

La plupart de ces informations sont également disponibles en français à monnaie.ca/investissement.

© 2015 Royal Canadian Mint. All rights reserved.

LBMA News

By Ruth Crowell, LBMA Chief Executive

Membership

The Membership consists of 147 companies, including 13 Market Makers, 57 Full Members, 10 Affiliates and 67 Associates.

Good Delivery List

Hunan Jinwang Bismuth Industrial Co., Ltd in Chenzhou City, China was added to the LBMA's Silver Good Delivery List, with effect from 13 September, 2016.

There are presently 71 refiners on the Gold Good Delivery List and 80 on the Silver Good Delivery List. There are currently three active applications for silver, two of which are in the initial review stage and the third is moving into Stage 2.

LBMA Board

The main focus of the Board has been the LBMA's governance and strategic development. With regards to governance, the focus has been on the appointment of independent Non-Executive Directors (NEDs) as well as a review of the Subcommittees' Terms of Reference. The LBMA's new independent Chairman, Dr Paul Fisher, took office on 5 September as Co-Chairmen with Grant Angwin. Following Dr Fisher's appointment, the Board is now shortlisting candidates for the other NED positions. NEDs are important in order to safeguard the interests of the Members, while also empowering the Board to make decisions.

In terms of decisions, the Board is also focused on the LBMA's strategy and market development work. Following further feedback from potential providers, the Board has been reviewing potential Heads of Terms in relation to the RFP (Request for Proposal) final providers. The LBMA will announce the successful solution provider at the Conference in Singapore.

Other important items that the Board is discussing include further lobbying for the reduction of the Net Stable Funding Ratio (NSFR) for gold and all precious metals. It has also provided assistance on preparation of two other important publications, the revision of the Guide to the London Precious Metals Market as well as the drafting of the new Precious Metals Code.

The Board thanked Bob Davis for his meaningful contribution to work of both the Board and the Physical Committee, and wished him well on his retirement.

Subcommittees

Regulatory Affairs Committee

The Committee is developing a number of regulatory updates which the LBMA will be publishing going forward. These will take the form of a regular series of financial regulatory briefings that will look into the most significant legal issues faced by the precious metals market. The first briefing issued in September covered the new Market Abuse Regulation regime as well as the rules concerning the initial margins and variation margins that came into effect on 1 September, 2016. Members who would like to contribute to the MAR response work are invited to contact the LBMA with any questions or issues that could affect the market. The LBMA is proposing to set up a working group to ensure that the appropriate people can respond to any consultations in a timely manner.

The Committee is also focused on other developments in relation to international regulations, including NSFR, EU regulations and developments in the US. Further regulatory information can be found in the Regulation Update on page 20.

Physical Committee

Contracts are now being drawn up for the production of a new series of Certified Reference Materials (CRMs). Market research has shown that there is still significant demand for such materials.

The LBMA has launched a market-wide consultation on the potential implementation of a Responsible Silver Guidance (RSG) for silver refiners. This follows demand from downstream users as well as from the London Good Delivery Gold and Silver Refiners themselves. The RSG would be based on the OECD Due Diligence Guidance, as well as Know Your Customer, Anti-Money Laundering and Combating Terrorist Financing regulations. A webinar was held in New York on 15 September during Platinum Week and this was followed up with a similar webinar tailored for European and Asian participants on 29 September.

The LBMA Executive is working with the Committee to help co-ordinate REACH registration for PGMs on behalf of the market before the May 2018 deadline.

Membership Committee

The Committee continues to focus on the review of the new Due Diligence policy and ongoing monitoring process for Members. The Executive is currently carrying out a pilot scheme and, following review by the Committee, the application process will be revised to reflect these additional checks. Once this scheme is finalised, the changes to the application process will be implemented in the new online application process. This online application process will be launched in early 2017 (see page 19 for more information).

The Committee is also processing a number of new applications for Full Member, Associate and Affiliate status. Any companies including refiners, producers or central banks that may be interested in applying for Membership are invited to contact the LBMA Executive at mail@lbma.org.uk.

Public Affairs Committee

The Public Affairs Committee's attention in recent months has been very much focused on preparations for the 2016 Conference, with particular emphasis on the speaker programme. Edel Tully, Chair of the PAC, summarises the highlights of the speaker programme in the Editorial on page 25.

The Committee is also finalising preparations for the Biennial Dinner, details of which you can find below on the next page.

Finance Committee

The Committee continues to focus upon the current 2016 financial position, which moves from strength to strength, along with setting the three-year forecast to 2019. In the latter half of this year, the emphasis will be on delivering improvements in account management processes to provide even further transparency and forecasting capability for both the LBMA and its subsidiary, Precious Metals Pricing Limited (PMPL), as separate entities. Looking to the future, the Committee is monitoring the financial management integration workstream of the LBMA's exciting new customer relationship management (CRM) project set for launch in early 2017. This is featured in an article by Ed Blight on page 19. Last but not least, the Committee remains fully committed to playing its part in the successful transition to the new LBMA governance structure.

Executive Travel and Events

The LBMA Executive recently attended a series of meetings and events during Platinum Week, 12-16 September, in New York. The LBMA also co-hosted a cocktail reception with the LPPM on 14 September.

Future LBMA Events

LBMA Biennial Dinner, 1 December 2016 Goldsmiths' Hall, Foster Lane, London EC2V 6BN

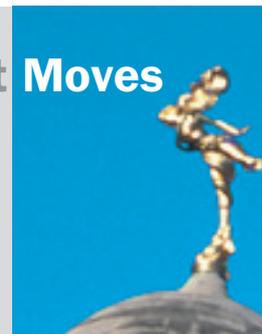
The 2016 Biennial Dinner is a black tie event for Members, Associates and guests of the LBMA. This year, the dinner will take place in the salubrious surroundings of Goldsmiths' Hall in the heart of the City of London. The proceedings begin at 18:30 with a cocktail reception followed by the dinner at 19:30. The keynote speaker for the event has been confirmed as the Right Honourable Michael Portillo, former MP and Cabinet Minister, and now a renowned broadcaster and journalist. For those coming to the event by train, don't forget to take your George Bradshaw Railway Guide. Registration for the event is now open.

LBMA Assay & Refining Conference, 19-22 March 2017

Royal Garden Hotel, 2-24 Kensington High Street, London W8 4PT.

The biennial Assay & Refining (A&R) Conference is a technical forum designed for assayers and laboratory analysts, refinery managers and engineers, but will also be of interest to anyone interested in hearing about the latest technical developments within the assay and refining industry. Bringing together experts from refineries located around the world, it naturally presents the perfect opportunity for those attending to network with their peer group. Registration for the event is now open. Please refer to the LBMA website for further details.

Market Moves



Jeff Klein joins Heraeus Metals

Jeff Klein joined Heraeus Metals New York, as a Senior Trader on July 18th. He began his career as a Trainee with UBS in New York, and was promoted over time to Chief Spot Dealer dealing with Gold, Silver, Platinum and Palladium. His next role was as VP/Senior Forwards Dealer at Credit Suisse First Boston. He worked at the NYMEX running a brokerage business servicing OTC market in trading futures, options and spreads in the gold and silver markets until moving on to Commerzbank. At Commerzbank, he worked in New York as the Director of the precious metals desk working with refiners and private banking customers. He supported the transition of the Metals Desk from New York to Luxembourg in 2014 and remained there until he decided to return to the US in early 2016. In his current role he is responsible for trading and developing the platinum and palladium books at Heraeus NY.

Gianluca Vitelli joins Sharps Pixley

Gianluca Vitelli has joined Sharps Pixley Ltd in London as a Business Development Manager. He was previously with Baird & Co as a precious metals dealer before moving into wealth management at Old Park Capital and Charteris. He brings with him an excellent understanding of the precious metals markets coupled with extensive experience in building new client relationships, especially in the wealth management sector.

TD Securities

Following a successful career spanning over 25 years, Tim Gardiner is retiring from TD Bank effective October 31, 2016. He joined TD in 2009 and successfully launched the Global Metals Sales and Trading franchise. David Swinburne, has assumed the role as the Global Head of the Business and Steve Scacalossi has taken on an expanded role as the Global Head of Sales. In Singapore, David Quarumby has joined TD from Standard Chartered Bank, where he was the Head of Structured Inventory Finance. He will be responsible for Asia Pacific Sales for TD. In London, Bob Davis, Head of the Metals desk, retired from TD at the end of August. Bob was a key figure in growing the franchise in the EMEA region and likewise had 25 years' experience in the market. Vikas Chamaria has joined TD from Barclays Bank, where he was Head of EMEA & India Commodities. He brings 17 years of experience and will lead the sales initiative for EMEA and India.

DIARY OF EVENTS FOR 2016/2017

OCT 31 - NOV 04

LME Week
London, UK
www.lme.com

NOV 02-03

2016 Precious Metals Summit
Park Hyatt Zurich, Zurich, Switzerland
www.precioussummit.com/event/2016-summit-zurich

03-04

International Precious Metals & Commodities Show Munich
MVG Museum, Munich, Germany
www.edelmetallmesse.com/

04

2016 Precious Metals Summit London
Hyatt Regency The Churchill, London, UK
www.precioussummit.com/event/2016-summit-london/

14-15

Silver & Gold Summit and Resource Expo 2016
San Francisco, USA
cambridgehouse.com/event/53/the-silver-summit-and-resource-expo-2016

DEC 01

LBMA Biennial Dinner
Goldsmiths' Hall
Foster Lane, London, EC2V 6BN
www.lbma.org.uk

07-08

11th China Gold & Precious Metals Summit
The Regency Shanghai,
Yan An Road, Shanghai, China
www.chinagoldsummit.com/index.html

2017

FEB 06-09

Investing in African Mining Indaba
Cape Town, South Africa
www.eiseverywhere.com/ehome/indaba2017/home

MAR 02

LBMA Annual Office Party
Bounce
241 Old Street, London, EC1V 9EY
www.lbma.org.uk

19-21

LBMA Assay & Refining Seminar
Royal Garden Hotel
Kensington, London, UK, W8 4PT
www.lbma.org.uk

APR 19-20

European Gold Forum 2017
Park Hyatt, Zurich, Switzerland
www.europeangoldforum.org/egf16/

MAY 10-11

121 Mining Investment London
ETC Venues, 8 Fenchurch Place, London, UK
www.weare121.com/121-mining/

SEP 29-30

Coinex 2017
The Ballroom, Millennium Hotel, London, UK

Editorial Comment

By Edel Tully, Global Head of Precious Metals Distribution, UBS Investment Bank and Chairwoman of the LBMA's Public Affairs Committee.

Gold is important in Singapore. It's so revered that the nation's first-ever Olympic gold medalist at the 2016 Rio Olympics games, Joseph Schooling, was given a S\$1.0mn bonus from the national Olympic Committee. As one of the principal trading hubs of Asia, Singapore is no less important to the international bullion market. This isn't the first occasion for the LBMA to travel to Singapore. Back in June 2014, we held a Bullion Market forum, but this is the first time for the LBMA to host its annual Conference here. The organisation always strives to pick host nations based on their market linkages, and Singapore has that in spades.

Once again, the Conference will be held in partnership with the LPPM, and with Singapore as our base, I am delighted that the Conference will also be held in association with the Singapore Bullion Market Association. Embedded within the infrastructure of the Asian physical market yet also home to an increasingly active investor community, Singapore is an ideal place to debate what lies ahead for the precious metals market. At our last conference in Vienna, delegates forecasted a gold price of \$1,160 by the time of the Singapore Conference. We all got that one a little wrong. Following a circa 25% year-to-date rally, forecasts from the Singapore Conference will capture much attention.

To ensure our delegates feel sufficiently welcome, the LBMA/LPPM opening session will have no fewer than five introductory welcome remarks, including from Dr Paul Fisher, the new LBMA co-chairman, Tim Pearce, LPPM Chairman, and Lim Hng Kiang, Minister for Trade and Industry & Deputy Chairman of the Monetary Authority of Singapore. Our two keynote speakers, William White and Eric Robertsen, will lay the foundation for a dynamic conference.

Against the uncertainty of the US presidential elections, negative interest rates, low real rates, a slew of negatively yielding sovereign bonds, and central banks lacking credibility and exploring various unconventional forms of monetary policy, monetary financing and fiscal policy, economic uncertainty sits at an all-time high. In theory, this is all good for gold. But CME net length sits near record highs, and more than 20moz have already been added to global ETFs this year. Where will the marginal buyer come from going forward?

Hopefully, the investor session will have some answers. William White, our keynote speaker, will extend his expertise into the investment session, with experts from Blackrock, Millennium Capital and Blenheim sharing their thoughts on market opportunities. The

conversation isn't just about gold; it's about the entire precious metals complex.

Many of the gold buyers this year aren't concerned about the fundamentals of the market or indeed positioning. For many institutional investors, gold has been bought as a hedge to S&P length. But gold's impressive rally this year has forced out the physical buyer. From East to West, physical demand remains very lacklustre. So far, this hasn't been an impediment to a higher gold price. But is the market too complacent in this view? This year, we have two sessions dedicated to the Chinese and Indian markets, as well as a producer session.

The standalone PGM session will delve into a number of key fundamental areas relating to the PGM market, with speakers from Johnson Matthey, PGI, Tanaka and SFA talking on topics such as the outlook for the Chinese autocatalyst market, Asian jewellery demand, Japanese retail investment and Asia's impact on the PGM market and prices, now and in the future.

In swift fashion, the LBMA Executive will deliver an update on some of the key industry developments as well as the latest news on the LBMA's strategy review. Sakhila Mirza, LBMA's general counsel, will probably have the toughest challenge of the whole conference – trying to deliver a comprehensive regulatory update in a 10-minute window. Sticking with this theme, there will be a session on Responsible Gold Guidance, with speakers from the OECD, Intel and the Artisanal Gold Council.

This year, in an attempt to bring a new dimension to how we look at future trends in key precious metals markets, we will step into the world of futurology. Andrew Staples from The Economist Intelligence Unit will tell us what his crystal ball foresees for the forces shaping Asia's key economies and, in turn, the accompanying panel session will extrapolate what that implies for the precious metals world. The sharp intellects of Tim Gardiner, John Levin and Bob Takai, who together bring a wealth of industry experience, together with the external objective view of Chris Watling from Longview Economics should provide the ingredients for a lively discussion.

The grand finale, the wrap session, is always one of the more popular slots over the two days. John Reade and David Jollie did such a good job as the dynamic duo in Vienna that we asked them back again this year. I've no doubt that Batman and Robin will perform very ably once again.

Most importantly, this is a conference for the industry, by the industry. It is an opportunity for all of us to catch up with old friends and make some new ones, to experience the wonderful city of Singapore and engage in some great discussions. I wish you all a great conference.



Edel Tully is UBS Investment Bank's global head of precious metals distribution. Prior to that, Edel was the bank's chief precious metals strategist,

with responsibility for forecasting and publishing research on the precious metals complex. Edel holds a PhD from Trinity College Dublin (2006), awarded for her thesis 'A Tripartite Investigation of the Gold Market: Pricing Influences, Intraday Patterns and Daily Seasonality'. She is chairwoman of the Public Affairs Committee of the LBMA. Prior to joining UBS in 2010, Edel was head of precious metals research at Mitsui and Co. Precious Metals Inc., a role she held from 2006.

The Alchemist is published quarterly by the LBMA. If you would like to contribute an article to the Alchemist or if you require further information please contact Aelred Connelly, London Bullion Market Association, 1-2 Royal Exchange Buildings, Royal Exchange, London EC3V 3LF
Telephone: 020 7796 3067
Fax: 020 7283 0030
Email: aelred.connelly@lbma.org.uk
www.lbma.org.uk

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

The Seventh LBMA Assaying and Refining Conference

The Royal Garden Hotel
Kensington, London
19-22 March 2017

Registration now open – please go to www.lbma.org.uk
for more information or email jamie.maskall@lbma.org.uk



facing facts

By William Tankard, Research Director, Precious Metals Mining, Thomson Reuters GFMS

Although titled 'Facing Facts', it should be pointed out that central to the arguments that follow is conjecture by the author. This does not necessarily reflect the view of Thomson Reuters or the LBMA.

The platinum market, South African producer community and investors therein have experienced an extraordinary and woeful past five years, faced with iron-fisted union intimidation, unprecedented labour unrest, civil discontent in mining communities, heightened government intervention and depressed (dollar) PGM prices. The profound rand-dollar volatility, mostly to the downside, has given producers some breathing room over the past four years and especially in the past twelve months, but spiralling inflationary factors have meant that, in spite of this, margins have remained thin and, in several cases, negative for an extended period of time.

Writing in mid-September (just as New York Platinum Week draws to a close) and having conversed with a broad range of participants, it would appear that the level of recognition by many in the market as to the potential for disruption to platinum supply is modest. Furthermore, it does not appear to be showing through in the price action. Though commodities' strong performance over the past nine months ameliorates a recent sell-off, after a gain of 40% in dollar terms, it is reasonable to suggest that the markets were due a period of consolidation. That platinum has given up some 14% (and palladium close

to 10%) since its twelve-month peak just over a month ago would also suggest the market is neither struggling for metal nor especially nervous about the potential supply of metal. My question surrounds the extent to which this trend can or will continue in the coming weeks and months, and the level of preparedness going into what may well present as a phase of renewed turmoil.

Since the five-month strike (now more than two years ago), producers have sought to get operations back on track and oft-volatile labour relations have shown a period of remarkable calm. A strong rebound in production over the latter part of 2014 and into last year could be attributed to some operations offering extensive overtime opportunities, which many workers were keen to take; a reflection of both parties' financial vulnerability following the lengthy period of foregone output and pay. Over the course of 2016, this theme has remained pertinent and frequently cited by the producer community as a key reason why mineworkers do not have any appetite for a strike, as they continue to seek to work to reduce indebtedness or rebuild the domestic coffers. In a similar but opposing vein, although little reported, GFMS hears that key spokesmen for the leading workers' unions have been highlighting that the precarious state of the mining industry's financials means that the companies can ill afford a strike and will hence capitulate to 'reasonable' pay demands this year. This reflects the huge gulf between the two parties, in the middle of which sits the now-dominant union, AMCU, and a weakened NUM seeking to regain memberships.

Although the latest wage settlement expired on 1 July 2016, very little has been

communicated to the market as to the demands laid out for 2016 onwards. Although just opinion, I would strongly disagree that the mining companies will readily bend to union demands and, on the other side, although I agree that few mineworkers have the appetite for a drawn-out strike, would question the extent to which this will be a relevant sentiment when led by a union with a history of intimidation and clear political ambition.

Another important point to make has been the apparent lack of stock building by either producing or consuming industry this time around. Although there have been a handful of process bottlenecks that would, all factors being equal, reflect an accumulation of metal that could be available for a 'rainy day', stock above and beyond refined outturn has been sold so far this year. For example, Anglo Platinum's platinum sales of 1.22 Moz in the first half of the year exceeded mined platinum by 6% and refined platinum by 21%. We do not believe that the same level of flexibility exists in the system now as was the case in 2014.

In my opinion, although at this stage it is impossible to suggest that we will necessarily see a repeat of the lost five months of work and 1.4 Moz of platinum from 2014, meaningful labour unrest and production losses seem inevitable. In a recent GFMS forecast, we have conservatively suggested an approximate doubling of the typical South African disruption allowance to almost 0.4 Moz of platinum for 2017. Coupled with a market that has shown reasonable firmness in 2016, these dynamics point to a renewed deep market deficit next year.

Further out, projects in the pipeline have been deferred on grounds of a lack of both financial and regulatory predictability. Where deployed, capital

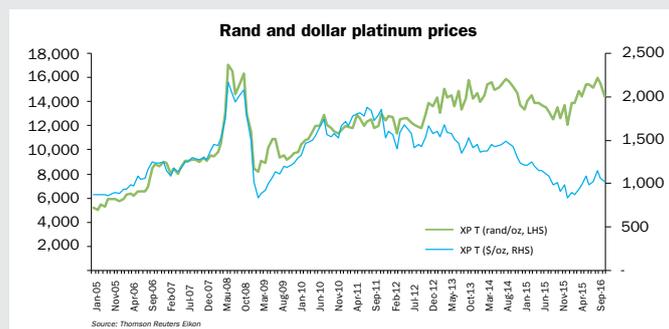
commitments appear to be increasingly focused on optimising existing facilities (for example, in Lonmin's case, upgrades to its minor PGM refining capability). "Capital containment", "cash preservation" and "disciplined capital allocation" have been prominent phrases in the past few rounds of annual and interim reporting; although outright production cuts have not been made, it seems likely that the sharp reduction that producers have made in capital investment will present as a growing headwind to the industry maintaining current levels of production.

The platinum mining industry, especially in South Africa, is in a decidedly unhealthy state and GFMS is of the view that unlike the events and price action in 2014, there is less preparedness and therefore scope for a renewed destabilising event to South African labour to drive a more obvious move in the market. Whether this will present itself before the LBMA conference in Singapore, or perhaps more likely in early-2017, remains to be seen, but there are a handful of factors that suggest to me that the market may well respond differently this time around.



William Tankard, Research Director, Precious Metals Mining, Thomson Reuters GFMS

Having joined GFMS Ltd as a Metals Analyst in 2005 to cover the mining sector, William was brought across to Thomson Reuters in GFMS' 2011 acquisition and holds the role of Research Director – Precious Metals Mining, within Thomson Reuters' Commodity Research & Forecasts division. He has accountability for the mining team's research output of global production, mining costs and producer hedging research across the precious metals.



THE WORLD'S **ONLY** BULLION AUTHENTICATION APP

Take hold of the future with technology that scans and verifies the unique surface profiles of bullion coins and bars, just like matching a fingerprint, from the palm of your hand.

Position. Scan. Verify. Simple



VERISCANTM
BULLION IDENTIFICATION SECURITY SYSTEM

EXCLUSIVELY FROM

PAMP[®]
Produits Artistiques Metaux Precieux

An MKS PAMP GROUP Company



Compatible only with iPhone versions 6 and up.
Please visit pamp.com/veriscan for further details.