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LBMA

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EDITORIAL

WHAT HAS LBMA EVER DONE FOR US?

BY JONATHAN SPALL, LBMA HEAD OF COMMUNICATIONS

A long time ago...

I started work in 1983 and, after initial exposure to foreign exchange and fixed income, ended up in precious metals just as the industry, with a push from the Bank of England, founded the London Bullion Market Association (LBMA) in late 1987. I had an inkling of its role but frankly was not that interested. Good Delivery Lists and documentation – important work but little to set my pulse racing. After disappearing off to Hong Kong and Australia for nine years, I came back to London in mid-2000. By this time, LBMA seemed to have plenty of committees, had organised its first conference (Dubai), but otherwise much was the same.

Several of my then colleagues were getting involved with LBMA and presumably to good effect, but would the market have stopped functioning if there had been no London Bullion Market Association? Even the name was parochial since it implied its policies were only relevant to the UK, whereas I was talking to central banks and investors internationally.

NOW IT IS STARKLY EVIDENT THE CENTRAL ROLE LBMA PLAYS IN THE GLOBAL MARKET FOR PRECIOUS METALS.

MARKET LEADERSHIP

It struck me when Deutsche Bank announced in early 2014 that it was exiting precious metals and, by extension, the gold and silver fixings. LBMA stepped in, co-ordinated the market response and the LBMA Silver Price was born. LBMA then took over the intellectual property rights, creating the LBMA Platinum and Palladium Prices with the LBMA Gold Price following in March 2015.

Could the market have organised this by itself and rejigged the mechanism to promote transparency and accessibility? Unlikely, since although the knowledge clearly exists, it would have needed a high degree of co-operation from institutions that are naturally competitors. Indeed, if there had been no LBMA, it would have been essential to create it just to resolve this particular issue.

CHAMPION AND QUASI-REGULATOR

Since then, the work needed from LBMA has mushroomed:

- The Management Committee became a Board with independent non-executive directors.
- LBMA-i, the trade reporting portal developed in association with Simplitium goes live in the second half of 2018. This will create an accurate picture of the size of the market; promote greater transparency as well as engendering confidence in the liquidity and efficiency of the OTC market.
- Monitoring the requirement of major market customers that metal be responsibly sourced.
- Issuing the Request for Proposal to further strengthen gold supply chain integrity by use of technology, including blockchain, and security features to protect against fraudulent bars.
- Published the Global Precious Metals Code (the Code), to which market participants must attest their adherence.
- Established the Code training portal, in collaboration with ACI.
- Lobbying European authorities to mitigate the impact of the Net Stable Funding Ratio on our members.
- Liaising with the relevant authorities regarding any change to the VAT treatment of precious metals following the European Union questioning the ongoing validity of the Terminal Markets Order.

LBMA also:

- Co-ordinated the market response on any renewal of the European central bank gold agreement.
- Published the Guide to the Global OTC Precious Metals Market.
- Is devising a Vault Operators Accreditation Scheme.
- Is organising its 19th annual conference (Boston in October), the biennial dinner (December in London's Guildhall), the biennial Assayers and Refiners Conference (London, March 2019) and held its annual party for the market (March).

LBMA CHAMPIONS THE INDUSTRY TO PROMOTE THE STRENGTH AND RESILIENCE OF THE GLOBAL OTC MARKET.

LBMA now has two distinct roles. Firstly, a quasi-regulator of elements of the global precious metals market – most obviously around the strict criteria for good delivery and responsibly sourced metal, but also around setting standards for the market as evidenced by the Code. Secondly, LBMA is a champion for the industry, working with organisations around the world to promote the strength and resilience of the global OTC market.

So yes, there is plenty going on and much still to do for a small team. I urge you to support LBMA, either by joining the Association if you are not already a member or by more actively participating in our various committees to ensure a robust and dynamic future for this important global asset class.

INSIDE THIS ISSUE

Front cover - taken from the Deutsche Bundesbank's Money Museum in Frankfurt. (c) Deutsche Bundesbank / Uwe Nölke.

THE BUNDESBANK'S GOLD HOLDINGS

Transparency Campaign: Book Publication, Exhibition and Symposium

BY CARL-LUDWIG THIELE,
FORMER MEMBER OF THE EXECUTIVE BOARD OF THE DEUTSCHE BUNDESBANK

(c) Deutsche Bundesbank / Nils Thies

3,374 TONNES...

ACCUMULATED WITHIN THE SPACE OF JUST OVER 20 YEARS

GERMANY'S GOLD RESERVES

The Federal Republic of Germany boasts the second-largest stock of gold holdings in the world, at 3,374 tonnes. From 1948, these holdings were initially managed by the Bank deutscher Länder, before its successor, the Deutsche Bundesbank, took over in 1957. They were accumulated within the space of just over 20 years, between 1951 and 1973, during the era of the European Payments Union and the Bretton Woods system, which was the global currency regime between the end of World War II and 1973. Long relegated to the fringes of public attention, Germany's gold reserves were thrust into the spotlight when turmoil erupted in global financial markets in late 2008 and the German general public suddenly began to take a different view of things. This change of mindset coalesced in a desire for greater security and a need for more information, particularly on Germany's stock of gold reserves.

GREATER TRANSPARENCY

The past six years have seen the Bundesbank respond with a variety of measures designed to gradually boost transparency surrounding Germany's gold holdings. Indeed, back in autumn 2012 it ranked among the first central banks to even disclose where it stores its gold, and how much. A few months later, in January 2013, the Bank called a major public press conference at which 20 bars from its vaults were displayed, filmed, photographed and explained in public for the first time.

RELOCATION OF GOLD

That press conference also saw the Bundesbank unveil its storage concept, which outlined in detail why the Bank was planning to transfer 674 tonnes of Germany's gold to Frankfurt by 2020. Gold forms part of the reserve assets, and there is no need to hold reserve assets in a monetary union, which was why it was decided to close the storage location in Paris. Another decision was that, in line with standard practice at many other central banks, more than half of Germany's gold should be stored in Germany in future, hence

the intention to ship 300 tonnes from the US Federal Reserve to the Bundesbank by 2020. As we now know, this transfer was wrapped up in 2017, well ahead of its self-imposed deadline.

Regular gold shipment updates at the beginning of the year kept the media and general public abreast of developments. But that wasn't all. There followed further steps to enhance transparency and make Germany's gold reserves an even more vivid experience for the general public. The beginning of 2015 saw the Bank put a short film on its website which explained to the public for the first time how the gold bars moved to Frankfurt were shipped and processed. This was swiftly followed in autumn of the same year by another première: the first-ever publication of a gold bar list, which provides a schedule of all the gold bars held in storage by the Bundesbank. This list is updated annually and published on the Bank's website. And finally, to give everyone an opportunity to experience the gold for themselves, the Bundesbank displayed a gold bar for visitors to see and feel at its last two open days in Frankfurt, in 2014 and 2017, and also at its revamped Money Museum.

JOHNSON MATTHEY & CO. LTD. PRODUCED THE BAR IN 1937... AND HELD BY THE BUNDESBANK FOR MORE THAN 60 CONSECUTIVE YEARS.

BUNDESBANK'S MONEY MUSEUM

Furthermore, in recent years the Bundesbank has received a steady flow of queries from the public at large about where Germany's gold came from and how it is used. The Bank's numismatic collection, which includes more than 90,000 coins, making it one of the country's largest collections, and boasts an unusually high number of gold coins, is another "conversation starter" which can serve to provide interested members of the public with historical information about the use of gold coins as a means of payment. This was the backdrop which prompted the Bank to consider launching another project that would shed more light on the history of Germany's gold. To coincide with a special exhibition at the Bank's Money Museum entitled "Gold. Treasures at the Deutsche Bundesbank", which was opened on 11 April 2018 with a symposium attended by numerous national and international gold and numismatics experts in Frankfurt, I unveiled a newly published book called *Das Gold der Deutschen (Germany's Gold)*. This publication is the first to give a detailed account of the history of Germany's gold reserves and the use of gold coins as a form of payment, besides sharing a number of fascinating scientific titbits about gold as a precious metal. Richly illustrated, the book gives readers a sense of what it is like to hold the gold bars and coins and savour their details. An English edition of the book will be published in the not-too-distant future.

(c) Deutsche Bundesbank / Nils Thies

The Johnson Matthey bar produced in 1937.

(c) Deutsche Bundesbank / Uwe Nölke

PURITY MATTERS

The exhibition presents a selection of particularly interesting bars from the Bundesbank's holdings. Computer-animated features explain the meaning of the different hallmarks which various entities stamp or etch on the bars to confirm the purity of the precious metal content. The gold bar which the Bundesbank stocks under inventory number 3 is a good example of this, and its markings offer a vivid account of its provenance. London-based assayers and refiners Johnson Matthey & Co. Ltd. produced this bar in 1937 (see photo below) as number 6185 with a listed weight of around 12.6 kilogrammes. The Royal Mint in Stockholm audited the bar in 1945 as number 98, and a fineness test by Degussa in 1954 under number 2110 found that it had a fineness of 99.61%. That year also saw the bar come into the possession of the Bank deutscher Länder, which means that it has now been held by the Bundesbank for more than 60 consecutive years. During that period, the bar's fineness and weight were examined multiple times as part of Bundesbank internal audits, with no fault with the data provided being found.

KING CROESUS OF LYDIA

For more than two-and-a-half thousand years, gold coins played a hugely important role in most monetary systems around the world, so it's no surprise that an extensive range of gold coins are on display in the Money Museum's exhibition. The invention of coinage at the turn of the 7th to the 6th century BC is tied up with King Croesus of Lydia and his father Alyattes II. To begin with, these coins were made from electrum, an alloy of gold and silver which was gradually separated to form a bimetallic currency system of pure gold and pure silver coins. Non-numismatists remember Croesus to this day as the inventor of coinage through the expression "rich as Croesus".

What had begun under Croesus did not end for good until 15 August 1971: the direct link between gold and means of payment. On that date, Richard Nixon severed the link between the US dollar and gold. But even today, gold is nonetheless an important anchor of confidence in monetary policy, which is why gold reserves are securely stored in central bank vaults.

FERNAND BRAUDEL

The participants of the symposium on "Gold and its significance for currencies" also visited the new exhibition. For the first time ever, we have combined aspects of numismatics and monetary history with issues of modern gold processing and gold trading as well as central bank gold. This approach reflects the understanding of history put forward by the renowned French historian Fernand Braudel, who emphasised the *longue durée*, or "long duration", of certain historical processes.

THE INVENTION OF COINAGE AT THE TURN OF THE 7TH TO THE 6TH CENTURY BC IS TIED UP WITH KING CROESUS OF LYDIA.


(c) Deutsche Bundesbank / Nils Thies

Speakers at the Bundesbank Symposium including Ruth Crowell.


(c) Deutsche Bundesbank / Uwe Nölke

The use of gold as a means of payment for two-and-a-half millennia is a classic example of such a process with a particularly long duration.

The problem with very long processes such as this is that they are not normally perceived as development by contemporaries. It is only when historians look back that, with the benefit of hindsight, these processes can be identified as such. In my view, it is vital for a central bank to have an equivalent degree of foresight, which is why I personally make every effort to initiate and encourage dialogue in this area.


(c) Deutsche Bundesbank / Uwe Nölke

BUNDESBANK SYMPOSIUM 10-11 APRIL, 2018

Following welcoming remarks by Stefan Hardt, Director General Cash Management, the symposium kicked off with a presentation by Professor Bernhard Weisser, Director of the Münzkabinett of the Staatliche Museen zu Berlin, who discussed electrum and gold in antiquity. Professor Hubert Emmerig of the Department of Numismatics and Monetary History at the University of Vienna turned his attention to the medieval gold money landscapes in the German Reich. Professor Bernd Kluge, former Director of the Münzkabinett of the Staatliche Museen zu Berlin, traced Prussia's path towards gold in the Early Modern age. Professor Svein Gullbekk from the Coin Cabinet of the University of Oslo's Museum of Cultural History brought the historical overview to a close with his presentation on modern history and outlined the role of the US double eagle in overcoming the Great Depression. Having thus been enlightened on the historical context, we heard from Christoph Wild, CEO of the gold refinery Argor-Heraeus, who covered the gold

(c) Deutsche Bundesbank / Nils Thies

value chain, with processing and responsibility forming the key points. Ruth Crowell, Chief Executive of LBMA, detailed the history of London as a gold trading centre and the development of the Good Delivery Standard. Wolfgang Schulte from the centre of excellence for gold at the Bundesbank's Directorate General Payments concluded the proceedings by reporting on how Germany's gold reserves came into being and on their use by the Bundesbank.

The measures I outlined earlier make the Deutsche Bundesbank today one of the world's most transparent central banks with regard to its gold reserves.

RUTH CROWELL DETAILED THE HISTORY OF LONDON AS A GOLD TRADING CENTRE AND THE DEVELOPMENT OF THE GOOD DELIVERY STANDARD.

In spite of some doubts about where transparency will lead and what it will trigger, other central banks have now taken this path, too. When it comes to the security of individuals and assets, transparency about gold also meets its limits. Yet even over the past few years, the Bundesbank has proved that transparency and security can indeed go hand in hand. The proof is in the gold transfers we conducted in recent years, which came off securely and discreetly but were also disclosed to the public as transparently and promptly as possible.

Carl-Ludwig Thiele was a member of the Executive Board of the Deutsche Bundesbank until April 2018. He was responsible for the Directorate General Cash Management, the Directorate General Controlling, Accounting and Organisation as well as for the Directorate General Payments and Settlement Systems. From 1990 up until joining the Bundesbank in 2010, Mr Thiele, who had previously worked as a lawyer, was a member of the German Bundestag. Between 1990 and 1994 he was a member of the Bundestag's Budget Committee. From 1994 up until 2010 he was a member of the Bundestag's Finance Committee, where he was entrusted with the function of Chairman between 1994 and 1998 and then Deputy Chairman between 1998 and 2005. For 16 years, he was also a member of the Mediation Committee between the Bundestag and the Bundesrat. From 2002 up until 2010 he was Deputy Chairman of the FDP parliamentary group.

THE GOLD EXHIBITION IN THE MONEY MUSEUM OF THE DEUTSCHE BUNDESBANK

in Frankfurt runs from 11 April to 30 September 2018. Admission to the museum is free of charge.

www.geldmuseum.de

HEDGING ON THE UP

BY SEAN RUSSO, PRINCIPAL AND MANAGING DIRECTOR, AND DAVE ROWE, PRINCIPAL, NOAH'S RULE

In the mid 1980s, Australian gold producers were some of the first to embrace hedging. Hedging allowed entrepreneurs to access debt to develop mines where previously only large companies had been able to access capital.

In 1988, the news of Newmont's 1 million ounce gold loan knocked the gold price down but also really got the ball rolling on the use of hedging by North American miners.

As prices fell over the next decade and pressure on margins increased, more and more miners sought salvation in increasingly complex gold derivatives that seemed to solve the problem of the day but generally heavily mortgaged an already uncertain future. At its height in December 1999, the global gold producer hedge book (see chart 1) was reported as nearly 106 million ounces (3,305 tonnes).

Anybody with even a passing interest in the gold market and gold equities is all too familiar with the incredible sum of money shareholders were required to stump up between 2002 and 2012 to close out hedging largely instigated before that period.

By the time producers finished their buy-backs, the global hedge book had hit lows of 2.5 million ounces in December 2013. No wonder hedging copped such a bad rap, with producers collectively maxing out at the low and buying all the way to the high.

Nearly five years on, the global hedge book has slowly increased to around 7.5 million ounces (having briefly reached 9.5 million ounces in June 2016). Australian gold producers are again some of the most active, with the other large contribution coming from Russian producers.

While several North American companies have put a tentative toe in the water, the hedges have been generally tied to specific events (e.g. New Gold and Rainy River Development) and over relatively short periods. In almost all cases, these companies have been at pains to say they are not otherwise returning to hedging in the ordinary course of their business.

There is no doubt in our mind that the enormous growth in the penetration of debt funds has also contributed to lower levels of hedging, as debt funds have both crowded out the traditional lenders who have historically insisted on hedging alongside their loans and made it exceedingly difficult for their borrowers to do any hedging.

THE ENORMOUS GROWTH IN THE PENETRATION OF DEBT FUNDS HAS ALSO CONTRIBUTED TO LOWER LEVELS OF HEDGING.

IN DECEMBER **1999** THE GLOBAL GOLD PRODUCER HEDGE BOOK WAS NEARLY **3,305** TONNES

In the case of Australian and Russian producers, currency weakness in the period after the USD gold price collapsed in 2013 allowed companies a chance to lock in very favourable gold prices in local currency terms. Having looked into the abyss in 2013, the more geared or high-cost producers were quick to move back to hedging when the potential to lock in solid margins in local terms was presented. Interestingly, Canadian-based mines have also enjoyed the benefits of a weaker currency but they seem to be far more influenced by a USD-centric view of the world, so like their southern neighbours, they have largely ignored the opportunity to grab some revenue stability in what have been very volatile times.

Perseus's Edikan gold mine in Ghana. Reproduced courtesy of Perseus.

It's very important to note that the recent behaviour of the vast majority of Australian gold producers has been different to what was observed in the 1980s and a world away from some of the practices of the late 1990s.

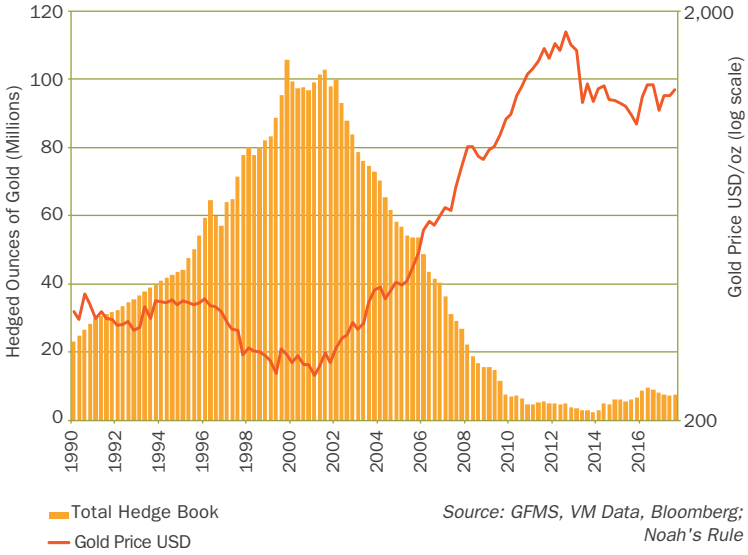
IT'S ALL ABOUT SECURING MARGINS TO WORK THEIR BALANCE SHEETS HARDER, NOT PUNTING ON THE GOLD PRICE.

Today's hedge books in Australia are relatively modest (see chart 2). The average hedge book of the producer group shown here is 200,000 oz. Expressed in as equivalent months of production volume in the table below, it is equivalent to 6 months of average production[1]. The vast majority of producers have an average currently realisable price in the range of $A1,650 – $A1,725. A very solid price level if you consider that the AUD gold price has only closed above $A1,700 in 10 months in history and in only eight months since the collapse in 2013. We have also observed the industry average hedge price rise steadily over time as spot prices have risen, which is very pleasing.

This suggests that most producers are acting responsibly, dealing promptly with their lower hedges and being disciplined both with the prices they add to cover and the volumes that they add. It's all about securing margins to work their balance sheets harder, not punting on the gold price.

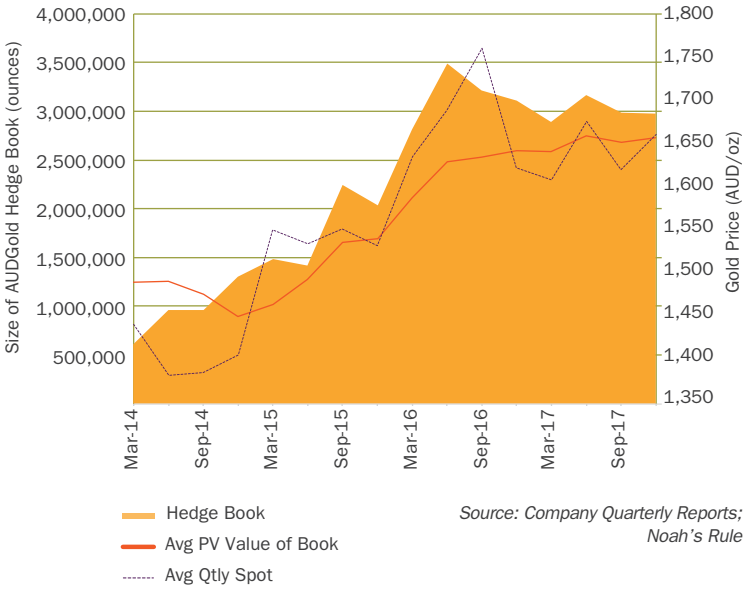
On visits to North America last year, we met with or saw presentations by more than 50 producers. Overwhelmingly, they still quote shareholder interests as their prime reason for eschewing hedging.

CHART 1: GLOBAL HEDGE BOOK AND US $ GOLD PRICE



Source: GFMS, VM Data, Bloomberg; Noah's Rule

CHART 2: AUSTRALIAN PRODUCER HEDGE BOOK AND AUS $ GOLD PRICE



Source: Company Quarterly Reports; Noah's Rule

CHART 3: AUSTRALIAN PRODUCER HEDGE LANDSCAPE

Source: Company Quarterly Reports; Noah's Rule

1. As at December 2017

Cleaning of a newly cast gold-silver dorebar. Reproduced courtesy of PanAust.

The current hedging landscape suggests some encouraging conclusions (see chart 3). Most encouraging is that the hedging being done in recent years is not like the hedging done in the 1990s (either in size, price or complexity) and, equally, that the majority of companies that do hedge are managing their hedge books in a disciplined and strategic manner. In 2018, the vast majority of gold hedge books are doing what they were always intended to do – providing stability and predictability in a volatile and ever-changing market.

NOAH'S RULE PTY LTD

For more than 13 years Noah's Rule has been providing tailored expert Market Risk and Debt Advisory services to the global mining resources and importer and exporter communities. The firm is known for its frank, robust approach across metals; currency; interest rate and debt markets as well as capacity to help companies gain clarity in uncertain environments. As well as helping firms manage their long term strategic positioning in these markets the firm also provides benchmarked weekly short-term trading advice across a broad range of markets.

Indeed, the one question we were often asked was 'how do Australian miners get away with it?', followed by the statement 'if we hedged, we would be punished in the equity market'.

The irony of course is that several of the leading miners in Australia who regularly hedge are trading at or close to 52 weeks and, in some cases, near all-time, highs. Far from being punished by investors for hedging and 'giving up the upside', Australian miners who hedge are increasingly being rewarded for showing how they have taken advantage of the more predictable revenue streams (and margins) that hedging allows, reducing debt, drilling hard, and increasing reserves and paying dividends.

Right now the gold price looks good in almost all currencies. Unhedged gold producers may play catch-up on their hedged rivals if gold prices really take off from here. However, with only six months of production hedged, and at prices that are locking in what are close to record operating margins, the overall negative impact of higher prices on the hedged producers will be limited. On the other hand, if gold prices again roll over, the hedged producers will have much more time to react and adjust. It's this latter point that seems to be dawning on those investors that are recognising the advantages delivered by miners that hedge sensibly.

Sean Russo, Principal and Managing Director, Noah's Rule. Sean is passionate about helping companies manage market risk to build strength and sustainability in their businesses. He has a fierce commitment to delivering responsible and innovative risk solutions to all Noah's Rule clients.

Since founding Noah's Rule in 2004, he has been a hands-on, strategic advisor for the management of financial and commodity market risk and negotiations and oversight for hedging execution.

He has a strong track record in delivering excellent strategic risk advice to CEOs, company boards and senior management. His success at Noah's Rule comes from formidable industry knowledge gained over more than 30 years in financial markets. His roles included Managing Director of Treasury at NM Rothschild and Sons (Australia).

A strong advocate for developing a high level of risk awareness in the business community, he takes pride in developing and fine tuning intelligent and responsive risk solutions for all Noah's Rule clients.

Dave Rowe, Principal, Noah's Rule. Using his in-depth expertise in financial markets, Dave is highly successful in identifying and managing key financial risks for Noah's Rule clients. With over 30 years of industry experience, much of it in the development of treasury products, he possesses deep knowledge of precious and base metals, energy, agricultural and financial markets and is adept at reporting, pricing and trading risk across these markets.

Before joining Noah's Rule, he held senior roles at NM Rothschild (Australia), National Mutual Royal Bank and Citicorp. At NM Rothschild and Sons (Australia) Limited he was a director and managed large trading and sales teams as Head of Trading and Head of Market Risk.

By gaining a perspective from 'both sides of the business' at Rothschild, he is well placed to offer critical insights for clients seeking to trade profitably and accurately report market risk.

This makes him an indispensable member of the Noah's Rule team.

He has a Bachelor of Economics from Macquarie University and a Graduate Diploma in Theology from Morling Theological College.

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DID YOU KNOW?

Golden Cities of the World – Ballarat, Australia

BY AELRED CONNELLY, PR OFFICER, LBMA

The Pioneer Miner`s Monument in Sturt St.Ballarat Victoria Australia.

2018 marks the centenary of the last gold mine to close in Ballarat, Victoria. But the story of the city begins much earlier.

An Australian, Edward Hammond Hargreaves, had witnessed the gold rush in California and conscious that the geological features he had seen there were very similar to his homeland became convinced that he would discover gold. In May 1851, within a week of his arrival back in Australia, he discovered gold in New South Wales (NSW)[1]. Quite quickly other discoveries were made, and in August 1851 gold was found in the nearby state of Victoria, at Poverty Point in Ballarat. The discovery was to transform Ballarat from a small sheep station into one of the great golden cities of the world as thousands of migrants, mainly from Britain, but also from Europe and the US, arrived in search of their fortune.

The alluvial fields of Ballarat were rich in terms of gold yields and many 'diggers' quickly grew rich on the back of gold discoveries. However, as was the case in California, the alluvial gold that was easily available on the surface was soon collected and it required greater effort and more sophisticated machinery to mine the gold further below the surface. Miners with pans were quickly replaced by groups of men with heavy crushing equipment to dig ever deeper.

Gold fields sprang up elsewhere across Victoria most notably at Bendigo and Castlemaine. The discoveries triggered an exceptional level of migration. Between 1852 and 1860 nearly 300,000 people migrated to Victoria from the British Isles, as well as 15,000 from other parts of Europe and 18,000 from the States.

BY THE END OF THE 19TH CENTURY AUSTRALIA WAS THE LARGEST GOLD PRODUCER IN THE WORLD.

Huge quantities of gold were being discovered and the amounts mined in Victoria began to dwarf the finds in NSW, which had been the original source of discovery. Indeed, during the 1850s, 650 tonnes of gold were yielded in Victoria compared to 90 tonnes in NSW. In this period, Australia produced one-third of the world's gold and, by the end of the 19th century, Australia was the largest gold producer in the world. In the process the gold rushes served to transform what were effectively colonies of convicts into progressive and vibrant economies.

The impact of the gold discoveries in colonial Australia had a greater significance for Britain than those in California. Whereas most of the Californian gold remained in the US, 80% of the Australian gold was shipped to London. The Bank of England Bullion Office and the London refiners, assayers and brokers worked overtime to deal with the influx of gold and new players came on stream to help deal with demand. In 1852 Sir Anthony de Rothschild leased the Royal Mint refinery and Stewart Pixley set up a brokerage business and in 1853 Samuel Montagu set up a bullion office.

Australia, Central Victoria, Ballarat, Sovereign Hill

1. This discovery is officially recognised as the start of the first gold rush in Australia. Although gold had been discovered in Australia prior to 1851 such finds had been surpressed by the colonial authorities in order to avoid destabilisation of the local economies. The California gold rush of 1848 shifted the opinion of the authorities - not only had a lot of men emigrated from Australia to join the rush but the government began to think of the economic benefits of an Australian gold rush.

For Ballarat the most remarkable discovery was still to come. In 1858, a golden nugget, which came to be called the Welcome Nugget and weighing an incredible 69kg, was discovered by 22 Cornish miners at Bakery Hill in Ballerat. At the time, it was the largest ever discovered and would be worth some $3 million today. In 1859 it was shipped to London, however its ultimate fate is unknown. The Pioneer Miner's Monument in Ballarat (see main photo) was unveiled in 1951 to commemorate the 100th anniversary of the discovery of gold there. At the centre of the monument is a replica of the Welcome Nugget.

INFRASTRUCTURE AND DEVELOPMENT

The wealth from the gold discoveries made Ballarat the richest place in the world for a period and the new settlers used their acquired wealth to establish new institutions, an orderly form of government as well building an extensive array of civil and social infrastructure. Grand designs for water storages, road construction and the Town Hall were commissioned. The new Gardens Pavilion provided facilities locals as well as for those tourists. In the main boulevard of Sturt Street, modelled on the Royal Mile in Edinburgh, were constructed the stone buildings that give the city its streetscape of today. Such was the prosperity of Ballarat that it was often compared with cities in Europe and Edinburgh in particular.

Aelred Connelly, PR Officer, LBMA

Aelred joined the LBMA in September 2011. He provides support to the Chief Executive in the administration and organisation of the Association's Public Affairs. He is responsible for Press enquiries, is the editor of the *Alchemist* as well as contributing to other LBMA publications, provision of the website and support for LBMA events.

Prior to joining the LBMA, he worked at the Bank of England for more than twenty-five years, the last five as an analyst in the Bank's gold bullion department.

END OF GOLD MINING

As the nineteenth century wore on the fortunes of Ballarat waned as its importance faded relative to Melbourne and Geelong. Workers sought greener fields, especially in the gold mines of Western Australia and New Zealand. Mining had become unprofitable due to the cost of pumping ground water from the deep mines and the labour shortage caused by World War I only made matters even worse. The last goldmine in Ballarat at Black Hill eventually closed in 1918.

However, Ballarat's association with gold is not all in the past. Gold continues to be found 167 years after the first discoveries. Indeed, in 2013, a nugget weighing an impressive 5.5kg was discovered by a man with a Minelab GPX-5000 metal detector, alleged to be the most sophisticated of its type in the world. So why not get yourself a Minelab GPX-5000 and jump on a flight to Ballarat. *"There's gold in them thar hills" and "there's millions in it"*. Perhaps Ballarat may have another gold rush yet.

Eureka Uprising

The local Gold Commissioner tried to exert his authority over the newly arrived diggers by making them purchase licences in order to prevent unauthorised mining. In January 1852, a licence fee of 30 shillings per month was levied, which later, in December 1853, was reduced to £1 per month. But tensions brewed as the Commissioner tried to impose the levy.

Thousands of the miners on the Ballarat Diggings protested against the cost of the licences, which did not give them a claim on the land they were working, and the arbitrary manner in which inspections were carried out by the army and local police. The more militant miners organised training and acquired weapons to resist the authorities. They built the Eureka Stockade on the Eureka Lead as a barricade for their own protection. Before dawn on Sunday, 3 December 1854, armed soldiers marched from the Government Camp, supported by mounted and foot police, and collectively attacked the stockade. The subsequent battle resulted in about 30 deaths and the arrest of some 120 diggers.

THE AFTERMATH OF THE UPRISING

Following the uprising, the Eureka Treason Trials held in Melbourne before juries in February and March 1855 saw the acquittal of all those accused, and sweeping reforms followed. In 1855, men who held miner's rights were given the right to vote in the Electoral District of Ballarat and to buy land. More land was surveyed and suburban allotments were sold.

The first wooden buildings were erected up on the escarpment of the Ballarat West plateau. Courts and local government got underway. The uprising is unique as the only rebellion in Australian history and is regarded as the catalyst for the birth of democracy in Australia.

Left: AUSTRALIA: REBELLION, 1854. /nThe 'Eureka Stockade' at Ballarat gold fields in Victoria, Australia. Wood engraving, 1886.

LBMA NEWS

The Global Precious Metals Code. With effect from 1 June 2018, adherence to the Code becomes mandatory for all LBMA members involved in the global wholesale precious metals market. LBMA has set up a training programme to assist members with their preparations.

The OECD announced at the recent Responsible Minerals Forum that LBMA's overarching due diligence principles are fully aligned with the principles of the OECD Guidance.

LBMA is liaising with the relevant authorities to convey the industry's concern over any change to the VAT treatment of precious metals following the European Union's discussions with HM Treasury questioning the ongoing validity of the Terminal Markets Order. Please note that gold is out of scope.

Publications. We recently published a heavily revised version of the LBMA Who We Are brochure. If you would like a hard copy, please contact LBMA at: events@lbma.org.uk.

The LBMA website has recently been refreshed in line with the new rebranding exercise.

GLOBAL PRECIOUS METALS CODE

The Code is intended to define a robust, fair, effective and transparent market where all participants are able to transact following best practice guidelines. For application, proportionality is key and discretion is given to market participants to determine which provisions of the Code are most appropriate for their business.

WEBINARS AND TRAINING

To assist members and market participants in adherence to the Code, LBMA has developed a training module in partnership with ACI Financial Markets Association (ACI). This will provide LBMA member institutions and individual practitioners with access to an E Learning, Attestation and Certification (ELAC) portal. By offering access to the ELAC portal, LBMA will ensure members participate in a standardised, high-quality training and education programme.

The ELAC portal combines illustrative examples and scenarios for precious metals market practitioners across different roles and circumstances, building on the ACI ELAC portal developed to assist market participants including central banks, regulators and operations personnel with adherence to the FX Global Code of Conduct (FXGC).

LBMA hosted a training webinar on 26 April 2018 to provide members with a demonstration of the portal. Look out for further webinars in the future.

Further details regarding access to the portal can be found on the LBMA website at www.lbma.org.uk, or if you have any questions, please contact Hayley Brooks at: hayley@c-view.co.uk or regulatory.affairs@lbma.org.uk.

OECD ALIGNMENT ASSESSMENT REPORT

The LBMA Executive attended the OECD Responsible Minerals Forum in Paris on 17-19 April 2018 and also participated in the OECD/World Bank meeting on 20 April.

One of the key highlights of the forum was the presentation of the Alignment Assessment Report by the OECD, which stated that:

"Many of the core principles of the OECD Guidance were incorporated into the requirements of the RGG (v6). These have been further improved by the revisions introduced by RGG (v7) and the LBMA's standards are now fully aligned with all the overarching due diligence principles of the OECD Guidance."

In its report, the OECD highlighted three key strengths of the LBMA programme:

- Programme requirements closely follow the structure and content of the OECD Guidance.
- Principles of company responsibility and accountability are clearly understood by refiners interviewed or visited during the assessment.
- Strong internal governance and structured management processes are provided.

NEXT STEPS

LBMA is working on Version 8 of its RGG, expanding the scope to include Responsible Business Practices, particularly in the areas of Environment, Sustainability and Governance, further strengthening the links the LBMA programme has with both upstream and downstream sectors.

STAFF NEWS

Jonathan Spall of G-Cubed Metals Limited, an industry veteran who will be familiar to many of you, is spending more time at LBMA, working as our Head of Communications.

Jeremy East is LBMA's man in the Far East, working as our consultant and key point of contact to develop strategy and outreach in this key region of the global precious metals market.

LBMA are delighted to announce that **Hollie Etheridge** has been appointed as the new Events Executive and **Emmy Richardson** as the Office Co-ordinator.

ACCREDITED REFINERS

CURRENT APPLICATIONS

There are three active applications for the Gold Good Delivery List, of which one is in the initial review stage, another is progressing into stage 1 and the other is approaching Stage 2.

There are also six active applications for the Silver Good Delivery List – one is in the initial review stage, another is at Stage 1 and four have progressed to Stage 2.

LBMA held a webinar on 26 and 27 April 2018 for Silver GDL refiners to explain the Responsible Sourcing Silver Guidance. If any silver refiners missed the webinar, please contact: gdl@lbma.org.uk.

LBMA MEMBERS

There are currently 144 member companies located in more than 30 countries.

The membership is broken down as follows: 13 Market Makers, 61 Full Members, 11 Affiliates, 3 Exchange Affiliates and 56 Associates.

Any companies including refiners, miners or central banks that may be interested in applying for membership are invited to contact the LBMA Executive at: mail@lbma.org.uk.

Keynote Speaker Confirmed for Boston

The distinguished economist Adam Posen, will be the keynote speaker at the 2018 LBMA/LPPM annual precious metals conference in Boston, 28-30 October. Adam is President of the Peterson Institute for International Economics. He has been the recipient of major grants and research fellowships from the American Academy in Berlin, the Bank of England, the Brookings Institution, the European Commission, the Ford Foundation, the Sloan Foundation and the US National Science Foundation. He has been widely profiled and interviewed by leading news organisations, including Bloomberg, the *Wall Street Journal*, *New York Times*, *Washington Post* and the *Financial Times*. He has written articles for many publications and he has served as a columnist for the *Financial Times*.

LBMA Outreach and Industry Events

3-5 June 2018
Asia Pacific Precious Metals Conference (APPMC).
Park Royal, Beach Road, Singapore

Paul Fisher will deliver the keynote address on 4 June about the current challenges faced by regulators in Asia to modernise their gold markets.

13 September 2018
LPPM/LBMA Members' Cocktail Reception
Lotte New York Palace Hotel, New York

9-12 June 2018
IPMI 42nd Annual Conference
JW Marriott San Antonio Hill Country Resort & Spa
San Antonio, Texas

28-30 October 2018
LBMA/LPPM Precious Metals Conference
Boston Park Plaza Hotel, Boston

12 July 2018
LBMA AGM
Glaziers Hall, London

5 December 2018
LBMA Biennial Dinner
Guildhall, London

24-26 July 2018
China Gold Congress and Expo 2018.
China National Convention Center, Beijing

17-20 March 2019
Assaying and Refining Conference
The Royal Garden Hotel, Kensington, London

LBMA

BOSTON

28-30 OCTOBER
A DATE FOR YOUR DIARY

PRECIOUS METALS CONFERENCE 2018

Boston Park Plaza

REGISTRATION NOW OPEN!

- Leading industry figures will attend
- Comprehensive programme and expert speakers
- Excellent networking opportunities

Interested in sponsoring or exhibiting?

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LPM
LONDON PLATINUM & PALLADIUM MARKET

2018 LBMA ANNUAL PARTY

LBMA's Annual Party was held this year at Aqua Nueva, Regent Street, London on Thursday 8 March. More than 250 people attended the event, and enjoyed a range of great food, refreshments and conversation.

Many opted to chance their arm on the gaming tables. Fortunately, everyone was playing with "pretend" money so no one actually lost any real money. Three prizes of bottles of Moet champagne were on offer to the winners in each of the three categories, blackjack, roulette and poker. Among the other forms of entertainment was a masterclass in sherry tasting experience with a sommelier (dressed as a matador!) as well as dressing up props and a selfie mirror.

Congratulations to the winners of the competition, David Swinburne, TD Securities (blackjack), Patrick Gardner, Triland Metals (roulette) and Sanjay Saraf, Theseum Ltd (poker).

A selection of photos from the evening are featured here and the rest can be viewed on the members section of the LBMA website.

We look forward to seeing as many of you as possible at the next party in 2019. Do let us know if you have any interesting ideas for a party theme.

Value that endures

KRUGERRAND

RAND REFINERY

MEMOIRS OF A **PC CHAIRMAN**

Peter Smith recently stood down as Chairman of LBMA's Physical Committee. To mark the momentous occasion, the LBMA's very own version of Richard and David Dimbleby, Neil Harby and Aelred Connelly, interviewed him (under caution and anaesthetic) about his 26 years of selfless and dedicated service, not only to LBMA, but also to the wider market.

What is your greatest personal achievement during your 26 years as Chairman of the Physical Committee?

Guiding LBMA's Physical Committee to retain its premier status globally as the go-to list and the standard setter for the physical precious metals market. Apart from looking after the Good Delivery List, it was then about expanding that out into proactive monitoring and making that work. Gradually, we improved the criteria for the Good Delivery accreditation, which requires constant revision and enhancement, as the parameters are always changing.

Under your watch, how have things gone?

They have gone from reasonable to quite a bit better. Is it perfect? No, it is not, but we certainly try to keep pace with what the market wants and move things forward. It is not easy and it requires a lot more skill and diligence now than it did all those years ago, but it is something that we still have to do to ensure that London and the UK and LBMA remain in the premier position in the precious metals business.

Is LBMA fit for purpose?

You'd expect me to say yes, but when you look at it, it has done pretty well at what it has set out to do. It's true that it has not always been in the right place at the right time or made every move correctly, but no organisation can seriously say that it has got everything right over a number of decades. All things considered, its track record has been good, and I am convinced it will continue to have a positive and central role to play.

Is it an exclusive club?

It has been criticised as being an exclusive club. I can understand why an outsider would think in that way. However, LBMA has actually been assisted by senior people from investment banks and a range of other market participant institutions who have given up their own time on a totally pro bono basis to keep the market in a positive position. These LBMA committee members have, to the best of their ability, assisted the organisation in a fair and responsible manner. They have not done it purely for the self-interest of themselves or their institutions. They have done it for the good of the market and for the continuance and ongoing prosperity of it.

It must be a fairly rare or unique situation where you effectively have competitors acting for the good of the market generally, working together to make sure that the market works.

That is absolutely right. The simple answer is that you need counterparties to interface with who care about the health of the market and who want to see it function normally and succeed overall. You cannot just have one dominant player in the market or a small number of dominant players. There are lots of people involved in the precious metals business globally who have historically made, and continue to make, good revenue returns on their business model. A lot of that is thanks to a relatively safe and stable market environment across a very broad spectrum of products, which is exactly what LBMA promotes.

So LBMA is truly global?

Yes. To continue to be so, it needs to continue to look at the spheres of influence in other parts of the world in the business. It probably needs to better understand what, for example, the Chinese and the Indian markets are looking for in terms of support and partnership.

"I look down on him... but we all look up to Peter". Taken at the commemorative dinner held by LBMA to mark Peter's 26 years service. Left to right Peter Drabwell, Neil Harby and Peter Smith.

However, it is too easy to give the shop away for nothing and allow someone to take all of LBMA's copyright. We do not want that to happen, but we do want to make sure that we are seen as the ultimate standard setter for the precious metals market throughout the world.

Is there a degree of benevolence required?

Yes, to a certain extent. You just have to make the call as to the difference between being benevolent and being taken advantage of. That is the tricky bit. Yes, sometimes you have to step back and be cautious, and sometimes you have to say: 'Well, we can work as partners and, ultimately, determine a way of coming to the best solution for both institutions.' Generally, you find that people will want to work with you. If they are as honest and upfront as we would like them to be, then it should not be difficult.

What is the next big challenge for LBMA?

The big challenge is to remain relevant both for the London market in its narrow sense – because it is a relatively tightly focused market – and in broader terms of working out how best to be ambassadorial in our approach to other markets, other regimes, other thought processes and new technology. That does not mean being a slave to new technology but rather seeing where it adds value.

That is quite a radical view for a market that has been very sedate and traditional for many years.

Sure, but you only have to look at the pace of change globally across all sorts of different spheres now. Who would have thought five years ago that people would be shunning diesel cars and that countries like the UK and Germany would be thinking of banning them entering city centres? You would not have thought that was possible. You would not have thought that electric cars would be one of the replacement items for those.

Do you think that in your lifetime we will metricate the market?

Well, the 'troy ounce' still has cachet. In precious metals terms, people want to trade in US dollars and they expect to get troy ounces, pure and simple. All of us possess the abilities to convert dollars to any currency in the world, including bitcoins or whatever other cryptocurrency you want to use, just the same as we can convert gold into any divisible weight that you want to use. People are just somehow comfortable with the concept of dollars and troy ounces – it is just history. There is nothing magical about it, but that's human nature for you. You can change whatever you like, but people currently are more than happy to continue with those existing, shall we say, rather old-fashioned methodologies.

Why is the Physical Committee the most important committee of LBMA?

I think the Physical Committee has pretty much always been staffed by some of the most senior people from our members who are used to, in the daily clearing and settlements process, working with each other to find solutions to daily problems. The Physical Committee has worked very well because of that – because we act not for our individual institutions but to seek solutions that work for the good of the market.

We have always tended to work a little bit like a Premier League football team. It is precisely because the team plays together regularly that we generally perform better than, for example, a national team full of individual superstars who all have different visions of what they want to achieve.

In the Physical Committee, we have always worked with the simple goal to make life in the market as straightforward and as simple as it can be and to make sure that participants can all live with whatever rules we create. It has worked very well. I have always felt that we play as a premier team.

Do you think that the new Board structure has improved the way that LBMA operates?

Having non-executive directors is a major help. Reducing the number of investment banking slots on the Board is also an improvement because it allows in members with a different mix of skills, concepts and ideas.

Why are the meetings so well attended? And why do people want to be on the Physical Committee?

Ultimately, whichever way you view the precious metals business, however diverse the bullion transaction, someone somewhere has to hold or own the underlying physical position assets, somewhere in the world. Therefore, this is a market that is not a virtual, always cash-settled market. It is a market where physical metal, be it gold, silver, platinum or palladium, is moved around the world for either investment or manufacturing or other purposes.

As a consequence of that, you can make all of the assumptions about these metals being financial assets and financially tradable, which they clearly are, but they are also assets that people either want to hold and cherish and keep in custody, or they want to use them, for example, in autocatalysts, electricity generating panels, jewellery, and so on.

That probably reflects the fact that the bread and butter work of LBMA is physical.

Yes, the physical services provide the backbone supporting the trading side of the business, in turn allowing it to flourish. You will know this Neil from your days at the Rand Refinery that you cannot exist successfully in the precious metals business if you are not prepared to move assets from one part of the world to another. That is ultimately the key to the whole product suite, whether you are providing platinum gauzes for petrochemical cracking or silver for medical purposes.

Is the Physical Committee the equivalent of oxygen for the body?

In my view, we most certainly are the oxygen – without which the body would fail to endure.

Just as the body cannot stop breathing because it does not want to breathe for a while, the precious metals industry does not have that option – the gold must always move.

Yes. It always has to be somewhere. Someone somewhere has to hold those assets. You can magnify those assets multiple times by trading around the globe, but ultimately, when you put all of those trades into simple accounting terms and cross off the sell debits against the buy credits, you come down to one seller and one buyer. However many thousands of moves there are along the way to get there, that is what it comes down to.

In your time, who have you most admired in the industry?

All of my peer competitors, because I look at them and see they have different bits of the business where they are successful. I always try to understand where they are coming from, how they have got to where they are and whether I want to try to replicate what they do and what it will achieve. I have worked with some incredibly interesting people within J.P. Morgan, some incredibly intelligent people and some very dynamic traders. Guy Field (the former Assistant General Manager at J.P. Morgan in London) was one example who was incredibly insightful and was a fabulous role model. I have been lucky in that I have had the opportunity to work with the CEOs and owners of refiners and the major mining companies, and I know who most of my peers are.

Most of them I do have considerable regard for and, despite the fact that we will compete strongly in the market, we will still be good friends outside of the business environment.

The bullion market is characterised by people staying in the market for a long time. Do you think that this continuity in retaining knowledge and experience is the reason that London continues to be the most important global centre for precious metals?

Absolutely. People get fascinated with the precious metals business, because if you talk to most people who work in the trading rooms of other fixed income or equities markets, most of the roles, even if they are at the most senior levels, can be relatively financially driven and might seem less tangible and relatively one dimensional by comparison. Whereas you enter the precious metals business and, because of the physical nature of the business and the global way it trades, you get to see, at a very advantageous level, pretty much how the macro economy is working globally.

WHAT PEOPLE HAVE NOT FULLY UNDERSTOOD IS THAT I AM FULLY PLANNING TO CARRY ON WITH THE DAY JOB.

You see, for example, an Asian government or central bank increasing its gold reserves because it is becoming more and more successful as a country and needs to increase its reserve assets. And then you see what you may consider to be a wealthy Western economy selling assets because they perhaps think that there is not enough sensible return on their gold, or that they need to sell because they have issues that they have not wanted to see publicised.

You get to see a vast array of global interdependence between economies and countries. Because of that, and because of the ability to see clients all round the world, it is an industry that people have tended to find completely absorbing and, consequently, difficult to find another markets role that is more compelling.

The photo was taken in a JPM, Bank Street, Canary Wharf meeting room, with Andrew Lovell, Executive Director of JPM and an LBMA Physical Committee member, with Sally Lee, Vice President of Brinks, Asia.

What does the market not know about Peter Smith?

The simple answer is 'not much', and what you see is what you get. I am fairly straightforward, transparent and honest. I do not embarrass easily, nor do I get intimidated easily, and all of that comes from having been with J.P. Morgan for so long. You assume a certain suit of armour and become fairly robust. Luckily, I do not have too many problems interfacing with people, whether it is the deputy governor of a central bank or someone of similar status. It is simply a matter of talking to people and understanding how best to work with them.

Do you think that those qualities you have, which you mentioned, have been shaped by the market or the other way round?

They have been shaped by J.P. Morgan and by the market, and I will hopefully continue to be shaped by new experiences in my career.

So we are not going to get any scandals then?

No, there are no scandals. There is not much about me that is not pretty transparent out there.

What is the next business for you?

What people have not fully understood is that I am fully planning to carry on with the day job. I am just giving up the voluntary work, if you like, purely because I think the time has come for new blood to continue the work. I have been thinking for almost two years now about handing over.

What do you feel is still unfinished business?

I do not think there is any unfinished business. There is just continual business that constantly changes. To someone like me, there is no end because I enjoy it. If you think there is an end and you think you have got somewhere, then you really have not understood what everything is about.

So there must be an enduring appeal of working at J.P. Morgan?

J.P. Morgan has been, as we know it today, in the precious metals business for almost 40 years and I can honestly say that there is never a dull moment. Our customers expect us to be able to fulfil their trade and investment needs at any point in time in just about any size. I cannot allow a situation where a major client calls to request a large gold allocation and asks how long it is going to take us to amass it for them, for the answer to be: 'It is going to take several days to get that together.' I have to respond: 'You can have it this afternoon if you need to do it today.' It is that sort of criteria that J.P. Morgan has to fulfil. So, running our physical business, I have to have assets realisable in all of the major parts of the world. Otherwise, J.P. Morgan is not fulfilling its remit. We have to have that level of bandwidth.

I think you summed it up earlier on when you said that you need people to play with.

I need people to play with and I need competitors to benchmark against, and I do mean that sincerely. I do not get the business because of our size, but because J.P. Morgan has the wherewithal to provide the service at the price the client is prepared to pay when they have compared us to others in the market.

During his 26-years as Chairman,

PETER HAS ATTENDED MORE THAN

300

Physical Committee meetings

How has J.P. Morgan viewed you juggling the chairmanship of the Physical Committee with the demands of your day job? How does JPM senior management regard that?

I am viewed on the basis of what business I support at J.P. Morgan and the revenues achieved, and the firm expects me to balance that with other activities. Most people have many different outlets and things that interest them. I happen to get a buzz out of being a small part of the bullion market, so I have been happy to devote some of my time to assisting LBMA. It is that simple really, and now the time has come when I can step away a little bit from that.

We have a strong Physical Committee. You have a much stronger executive at LBMA with a much greater depth than we have ever had in its existence and, as a consequence of that, it is getting to the point where I should be able to stand back and there should be incredibly little impact in my not being there. That is the way I see it. It is not the fact that I have done a great job or whatever else, but that the support levels around me enable me to feel relaxed about stepping away and that I am not walking away from a situation that is going to deteriorate. I am expecting it to continue to grow and develop and improve. That is my view.

Has the publication last year of the amount of gold and silver held in London vault holdings helped deliver greater transparency?

Surprisingly, it has. I did not think it would. I was a sceptic, I must say. However, there has been less objection to it and more acceptance in the market than I would have ever imagined. It has possibly quietened a few.

Thank you, Peter. Is there anything you wanted to add?

One small comment that we have mostly covered – I think that the Physical Committee does provide the lifeblood for the entire professional wholesale physical market in precious metals. Without it, the market would become very unruly. As I say, LBMA has to continue to look to broaden its horizons as much as it can and work with partners that have the same ultimate goals.

And finally, any stand out historical events you recall about the bullion market?

There were a couple – the collapse of Johnson Matthey Bankers and the Brink's-Matt robbery – both of which, despite their unfortunate circumstances, provided many valuable learning insights into the markets inter-relationship complexities, the underlying credit and security risks of precious metals transactions. But most importantly of all, we witnessed how well the London Market came together to help and work through those challenges.

PETER MUNK OBITUARY

BY BARRICK GOLD CORPORATION

Peter Munk is named a Companion of the Order of Canada, the country's highest civilian honour, by Governor General Michaëlle Jean in 2008.

A $100 million contribution in 2017 from Melanie and Peter Munk (seated) to the Peter Munk Cardiac Centre at the Toronto General Hospital is the largest single gift ever made to a Canadian hospital.

It is with deep sadness that we announce the passing of our founder, Peter Munk, the iconic Canadian entrepreneur and philanthropist. He was 90.

Munk founded his most significant venture, Barrick Gold Corp., in 1983 and built it into the world's largest gold mining company in less than 25 years. He did so by leading a small team of partners who trusted one another implicitly and who together balanced boldness and prudence in the pursuit of fierce entrepreneurial ambitions.

One of Canada's most significant philanthropists, Munk donated nearly $300 million to causes and institutions that were close to his heart. With his wife, Melanie, he established the Peter Munk Cardiac Centre at the Toronto General Hospital in 1997. Munk donated more than $175 million to the institution, including a $100 million contribution in 2017 that remains the largest single gift ever made to a Canadian hospital. To his alma mater, the University of Toronto, Munk gave $47 million to create what has become Canada's pre-eminent degree-granting institution for the research and study of global affairs, the Munk School of Global Affairs.

For his leadership as an entrepreneur and philanthropist, Munk received numerous awards and honours, including honorary doctorates from the University of Toronto, Concordia University, Bishop's University and the Technion-Israel Institute of Technology. In 2008, he was named a Companion of the Order of Canada, the country's highest civilian honour, limited to no more than 165 living Canadians at any one time, which he cherished.

Peter Munk was born into a prosperous Jewish family in Budapest in 1927. When the Nazis invaded Hungary in 1944, he escaped with his family to Switzerland on the Kastner train, ultimately arriving in Toronto in 1948 at the age of 20 with nothing but a small suitcase. An immigrant with neither social connections nor a command of English, Munk nevertheless felt welcomed by Canadians, and he would go on to profess a lifelong love of his adoptive country. In 2011, he remarked: "Canada's inclusiveness is vital: it is a characteristic of overwhelming value and importance, and distinguishes Canadians from anybody else. This is a country that does not ask about your origins but concerns itself with your destiny."

While his loyalties were national, his ambitions were global. He pursued them with audacious vision and a relentless internal drive that would become his trademarks. After graduating from the University with a degree in Electrical Engineering, he formally entered business in 1957 with $3,000 from his then father-in-law, William Jay Gutterson. Peter Munk Associates built custom-made hi-fi sets for wealthy clients and, within a year, in partnership with David Gilmour, was reborn as Clairtone Sound Corporation. Combining mid-century Scandinavian design with high-end stereo manufacture, Clairtone's stereo consoles became immensely popular, won design awards and gained endorsements from Frank Sinatra and Oscar Peterson. Soon, however, the company grew too big too quickly and eventually collapsed. The experience was pure Munk, only doubly so: spurred by a rapturous desire to pursue what seemed impossible, yet in its very failure raising that desire to even greater heights of sweet ache.

Upon that foundation, Munk went on to build a hotel empire in the South Pacific, create a highly profitable real estate investment trust and pursue new ventures in oil and gas.

In his third and most illustrious act, Munk turned to gold. Beginning in 1983 with modest investments in two small mines in Ontario and Québec, he and his partners, including Bob Smith, the legendary mining engineer, grew Barrick into the world's largest gold miner in less than a quarter of a century. As the journalist Nina Munk wrote of her father: "The more impossible the situation, the more single-minded he becomes."

Munk is survived by Melanie, his wife of 45 years, by his children, Anthony, Nina, Marc-David, Natalie and Cheyne, and by his 14 grandchildren.

His memory lives on with more than 10,000 Barrick employees on five continents, as well as the countless individuals and communities he touched through his philanthropy in Canada and around the world.

Peter Munk, Bob Smith and Dr Brian Meikle survey Barrick's Goldstrike mine in Nevada in 1992.

MARKET MOVES

Metals Focus Opens Office in Mumbai

Harshal Barot has joined Chirag Sheth in Metals Focus' new India office. He has over seven years' experience as a precious metals analyst, five of which were spent at one of India's foremost commodity brokers, Motilal Oswal, where he also featured on business news channels. He has a Bachelor of Engineering and a post graduate degree in Finance.

Steve Scacalossi joins SCMI, US Inc

Steve Scacalossi has joined SCMI, US Inc, a subsidiary of Sumitomo Corporation, as Senior Sales Manager of the Commodity Business Unit. He has over 23 years' experience in metals having worked at Credit Suisse, Mistui & Co. Precious Metals, Inc. and most recently at Toronto-Dominion Bank, where he was the Global Head of Metals Sales. He is responsible for the expansion of Sumitomo's client franchise inthe America's.

FACING FACTS

BY DANTE ARANDA, SENIOR MINING ANALYST – GFMS, SUPPLY CHAIN AND COMMODITIES RESEARCH, THOMSON REUTERS

China, the world's number one gold producer and accounting for 13% of global mine production, took a step back in 2017, reducing mine supply by 6% to 426 tonnes as the government escalated efforts to fight pollution and increase environmental awareness.

Previous estimates pointed to a 10% decrease in output, but losses decelerated during the fourth quarter led by higher than anticipated production from non-ferrous smelters. Year-on-year toll smelter production is estimated to have dropped by 14 tonnes, in tandem with a 12-tonne contraction in the country's integrated mining and refining industry. Environmental protection laws and resource tax policies also impacted domestic gold miners, particularly in provinces with a long history of mining such as Henan and Fujian, which account for 12% of the country's total production.

As a consequence, integrated miner/refiners now account for approximately 32% of Chinese gold production, compared to almost 50% in 2010. Amongst the main producers, Zhaojin Mining saw a muted change in mine-produced output on stronger output at Xiadian and Zaozigou, while smelter production contracted by 14.5% to 13 tonnes. Lingbao Gold Mining saw a fall in production from its mines due to delays as well as lower than expected recovery rates, together with a 4-tonne drop in output from the smelter business. In the current year, we expect Chinese mine production to inch higher following a number of plant upgrades implemented over 2017. Given the fragmented state of the Chinese mining industry, we continue to account for losses from smaller miners, though at a lower rate than last year.

32%

INTEGRATED MINER/REFINERS NOW ACCOUNT FOR APPROX. 32% OF CHINESE GOLD PRODUCTION.

In **Indonesia**, the region's second-largest producer, output fell by 21 tonnes, or 11.7%. The introduction of a nine-month tax amnesty programme by the Indonesian government, which hoped to repatriate billions of dollars from overseas, saw artisanal production from Kalimantan and Sumatra fall sharply as many traders were reluctant to remain in the industry. GFMS estimates that this supply topped 100 tonnes in 2016 and struggled to exceed 60 tonnes in 2017. In addition, tighter environmental controls on mercury and cyanide caused artisanal and illegal mine production to fall. Although illegal mine production will prove difficult to eradicate altogether, jewellery fabricators have noted a drop in output from a number of artisanal fields.

Further losses were registered at Batu Hijau, where output is estimated to have contracted by 5 tonnes as the operation reached the end of Phase 6. Mining rates were also affected as the workforce transitioned from PT AMNT to Macmahon Holdings, a mining contractor, over the second half of the year. Meanwhile, higher output at Grasberg and Gosowong provided a partial offset year on year. At the former, output rose by 46% to 48 tonnes on higher grades (+69%) despite a 12-week export ban that ended in April 2017. With the final phase of the open pit near completion, Freeport expects production to reach 75 tonnes in 2018 before transitioning to the lower-grade Grasberg Block Cave underground mine in 2019. However, market conditions and regulatory uncertainty are two potential headwinds that may reduce or defer capital in its underground development project. In addition, the company is currently seeking an extension of its copper export licence, which expired in February 2018.

Total mine production in **Chile** fell by 7 tonnes due primarily to the suspension of mining and crushing activities at Maricunga in August 2016. Production from the rinsing of heap materials placed on the pads prior to the suspension of mining activities amounted to 3 tonnes, or 48% below the same period last year. Lower throughput was also noted at El Peñón, where output dropped by 2 tonnes following the implementation of an optimisation plan in 2017.

We estimate that **Colombian** gold output fell by 6 tonnes due to a drop in illegal mine production. This was due to two factors. First, the strong increase in coca cultivation areas in the lead-up to the government's peace deal with the Revolutionary Armed Forces of Colombia (FARC). According to the UN Office on Drug and Crime (UNODC), coca cultivation areas rose by 52% in 2016 driven by the agreement, which prioritises crop substitution and economic subsidies for farmers to move away from coca production. Some of these areas, which were under the direct control of the FARC, also benefited from adjacent gold mines that facilitated money laundering activities. Secondly, with the complete disarmament achieved by mid-2017, we believe the upward trend in coca cultivation extended into 2017 and consequently affected production from illegal mines.

In addition, a government clampdown in the province of Chocó, a region rich in natural resources and focal point of the Colombian armed conflict, saw the seizure of over nine mines. Last year, 38 operations against illegal mining (up from 11 in 2016) resulted in the seizure of 45 illegal mines.

Top 10 Gold Producers

Rank			Output (t)	
2017	2016	Country	2016	2017
1	1	Barrick Gold	171.6	165.6
2	2	Newmont Mining[1]	163.3	163.8
3	3	AngloGold Ashanti	112.8	116.8
4	5	Kinross Gold[2]	84.2	81
5	4	Goldcorp	89.4	79.9
6	7	Navoi MMC[2]	75.5	77
7	6	Newcrest Mining	76.7	71.1
8	9	PJSC Polyus	61.2	67.2
9	8	Gold Fields[2]	63	62.6
10	10	Agnico Eagle	51.7	53.3

1 Includes production from Duketon until 10th March 2016, and Batu Hijau until 2nd November 2016.
2 Estimate.
Source: Company Reports; GFMS, Thomson Reuters

The theme continued in **Peru**, where output fell by 6 tonnes chiefly due to a government crackdown in La Pampa – a prolific illegal gold mining and trade area since the opening of the Transoceanic Highway in 2012. However, illegal mining routes proved resilient as noted by stronger flows to Bolivia year on year. In the country's formal sector, lower leach tonnes placed at Yanacocha resulted in a 4-tonne drop in output, somewhat mitigated by fresh ounces from Buenaventura's Tambomayo gold mine. The operation reached commercial production in the third quarter of 2017 – one quarter behind schedule – due to bottleneck issues in the tailings filtration process. The company expects to produce almost 4 tonnes in 2018.

Russia, which contributes 83% of European output, added 17 tonnes in 2017. This rise came despite a significant rouble appreciation (+13%), which hurt producers with weaker revenue growth relative to the cost of production. However, the rouble strengthening was fully offset by strong operational results at Polyus, where higher grades, improved mill performance and a lower power tariff in the Far Eastern Federal District allowed production to rise by 10% to 67 tonnes. The majority of the increase was seen at Olimpiada, the world's fifth-largest primary gold mine, due to a 15% increase in processed grades. Looking ahead, we expect Polyus to show year-on-year gains on the back of a ramp-up at Natalka and consolidate its position as one of the world's top four producers by 2019. We expect the bracket in 2019 to be composed of Newmont, Barrick, Goldcorp and Polyus, with Barrick the only producer with lower ounces against 2017.

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Production in the **United States** rose by 8 tonnes supported by new project ramp-ups (Long Canyon and Haile) and higher grades at Barrick Nevada and Bald Mountain operations. Gains were partially countered by a 2-tonne drop at Barrick's Turquoise Ridge on lower grades and throughput at Twin Creek's mill. Ore mined at Turquoise Ridge is normally processed at Newmont's Twin Creeks' mill; however, a small tonnage of low-grade material was processed at Barrick's Goldstrike operation after being rejected by Newmont.

Elsewhere, hyperinflation and the run-away parallel exchange rate in **Venezuela** continued to support illegal mining in the jungle state of Bolivar. In early 2016, the government passed an executive decree to open up the Orinoco Belt to mining activities to reinforce their grip around existing operations and replenish central bank coffers. According to reports, the zone contributed 8 tonnes of gold last year, compared to less than one tonne in 2016. Further gains were posted in **Suriname**, where output jumped by 13 tonnes, or 63%, led by the first full year of production at Merian.

Top 20 Gold Producing Countries

Rank			Production (tonnes)	
2017	2016	Country	2016	2017
1	1	China	453.5	426.1
2	2	Australia	290.2	295
3	3	Russia	253.6	270.7
4	4	United States	222	230
5	7	Canada	165	175.8
6	6	Peru	168.5	162.3
7	5	Indonesia	174.9	154.3
8	8	South Africa	145.7	139.9
9	9	Mexico	133.1	130.5
10	10	Ghana	94.1	101.7
11	12	Uzbekistan	82.9	84.9
12	11	Brazil	84	79.9
13	13	PNG	62.8	61.9
14	15	Argentina	57.9	61
15	14	Dem. Rep. Of Congo	60.4	60.1
16	18	Kazakhstan	49.8	55.1
17	17	Mali	49.8	52.2
18	16	Colombia	57.1	50.6
19	19	Tanzania	49.7	49.1
20	22	Burkina Faso	40.9	49.1
		Rest of the World	555.5	556.4
		World Total	3,251.40	3,246.50

Source: GFMS, Thomson Reuters

2018 MINE PRODUCTION OUTLOOK

Based on limited updated guidance, we expect mine production to post year-on-year gains in 2018 to a new record high of 3,265 tonnes. We expect Asian countries such as Indonesia, Mongolia and China to contribute to gains in the current year, accompanied by Russia, Australia and Canada. In addition, we estimate Panamanian mine production to rise by 5 tonnes led by fresh ounces from First Quantum Minerals' Cobre Panama project. By the end of 2017, development of the project had advanced to 70% completion, with construction activities at the process plant currently underway. Similarly, following the commissioning of B2Gold's Ferkola operation in Q4 2017, we estimate that output in Mali will increase by 5 tonnes to a total of 57 tonnes. More broadly, there are relatively few new projects and ramp-ups expected to begin producing this year. These include: Tasiast in Mauritania, Cerro Moro in Argentina, Kibali in DRC and Tambomayo in Peru. On the other hand, the United States, Tanzania and South Africa are expected to show strong declines year on year.

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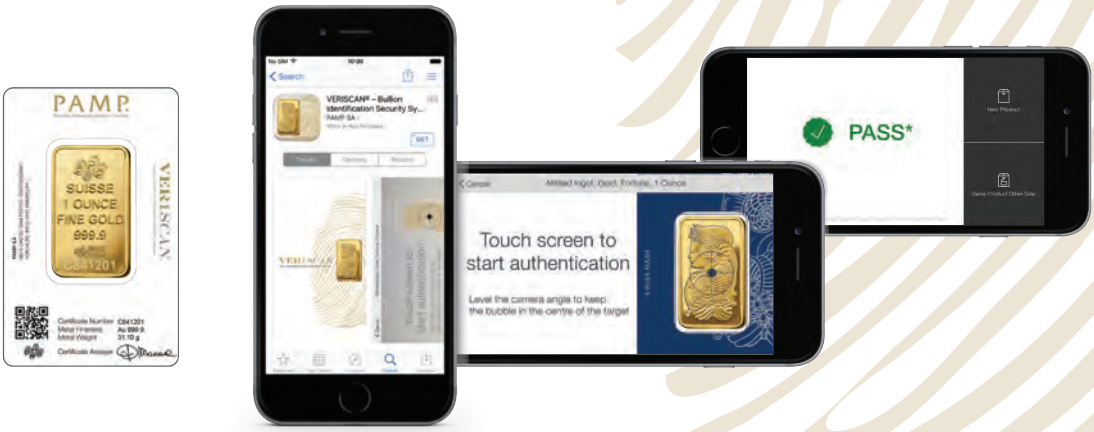

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