LBMA

Alchemist

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In this issue

Of Elephants and Yams...Of India and Japan – In India it's said that when talking of elephants, don't discuss yams, a Subcontinental sentiment that forms the title of Tom Kendall's thorough and thoughtful article on PGMs in India. It's an especially timely subject, given that the LBMA's next conference – the ninth in as many years – will be held in conjunction with the London Platinum and Palladium Market in Kyoto, Japan from 28 to 30 September. So mark your diaries, send your ideas for conference speakers and subjects to the Executive – and read Tom's article on page 8.

Metals and Markets Meet in Mumbai

By Susanne Capano, Editor

Amid a hectic market of soaring precious metal prices, delegates gathered for the LBMA's eighth annual conference, held in Mumbai's Taj Mahal Palace and Tower Hotel.

The conference programme focussed on issues affecting a variety of market sectors, including investment options, trends in jewellery markets, the management by central banks of their reserve assets and concerns in the mining industry. An article adapted from the speech given by Tom Kendall on prospects for pgm demand in India can be found on pages 8 to 11.

Photos of the Conference sessions, the opening reception and Monday evening's reception and dinner are on pages 6 and 7.

Following the sessions held on Monday, delegates were given a chance to visit the Zaveri Bazaar. The impressions of some very impressed delegates, along with photos, are on pages 12 and 13.

Poll Results

Following tradition, the conference was summarised by Kamal Naqvi of Credit Suisse, who solicited opinions on major influences on the gold market and the direction of future prices as part of his presentation.

In many instances, similar questions had been posed at the past two conferences, so it was possible to compare and contrast the responses over the years. As Chart 1 shows, delegates overwhelmingly believe that the most significant supply/demand factor affecting the gold price is investment demand – though this year the percentage choosing that option declined. Of the remaining three possible factors, jewellery fabrication declined, while those believing central banks to be the most significant factor increased slightly. But it was hedging that saw the largest increase – more than tripling, from 6% in 2006 to 20% this year.

Over half of the delegates chose the US dollar as the most significant factor affecting precious metal prices (Chart 2), an increase of 9% over last year. The percentage finding inflation most important remained unchanged, while fewer delegates chose global insecurity and oil and other commodity prices.

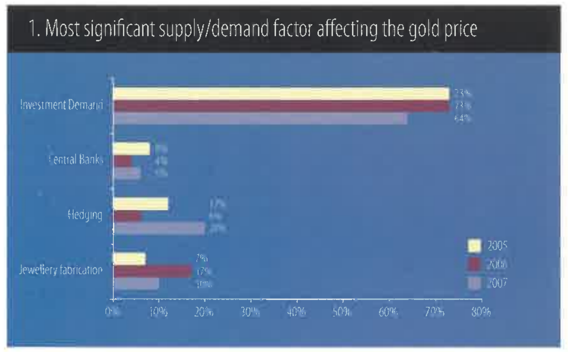
Both last year and this, delegates thought that the most influential "investor" in the gold market in terms of price direction was macro hedge funds (Chart 3). The share given to both CTAs and central banks remained unchanged, but the share given to institutions declined in favour of retail investors.

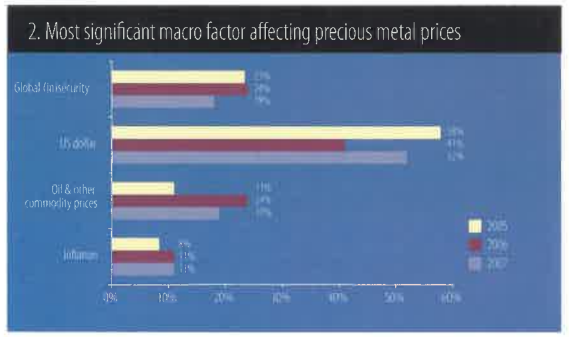
Onward and Upward

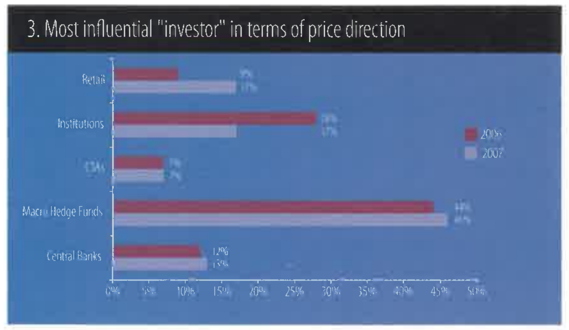
However, once again the consensus views for the future direction of gold, silver, platinum and palladium prices attracted the most attention, with delegates asked to choose the levels the markets would be trading at in September 2008, the time of the next LBMA Conference.

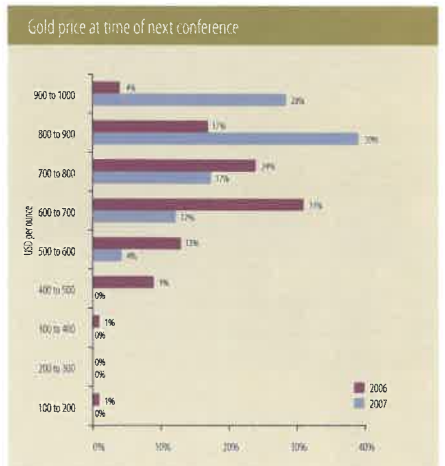
Given the bullish mood that had prevailed in the market over much of the latter part of 2007, it was hardly surprising that, once again, delegates predicted that prices would be higher for all four metals by the time of the Kyoto conference – as they had correctly forecast at both the 2005 and 2006 events.

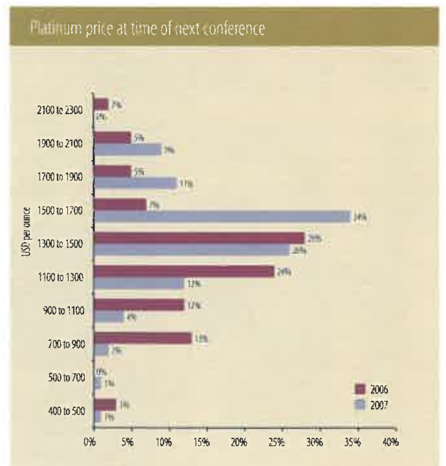
In palladium, the average price predicted by the delegates in Mumbai – $446.20 – was nearly unchanged from last year's prediction

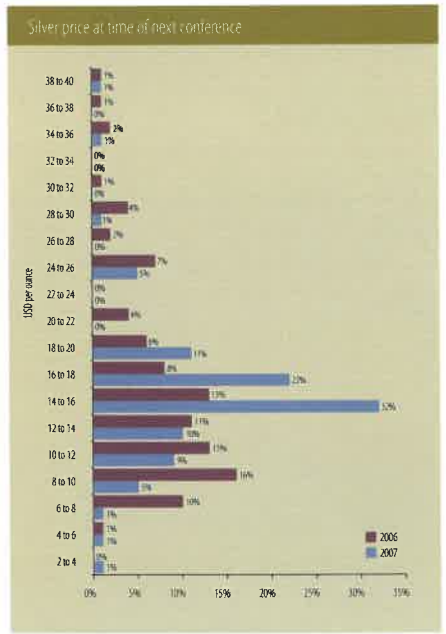


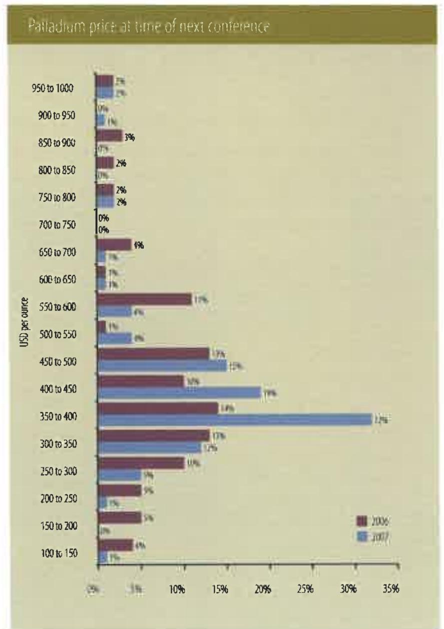












of $444.10. Should the price reach that level in September, it would represent a solid gain over the price when they cast their votes: $360.

With platinum trading at $1,460 – and climbing – at the time of the Mumbai conference, the delegates' average prediction that the price would be $1,519 in September 2008 was reached even before the year drew to a close, and the price continued its upward march in January. Approximately one third of the delegates chose the $1,500-to-$1,700 price band, a level that only 7% had selected in 2006.

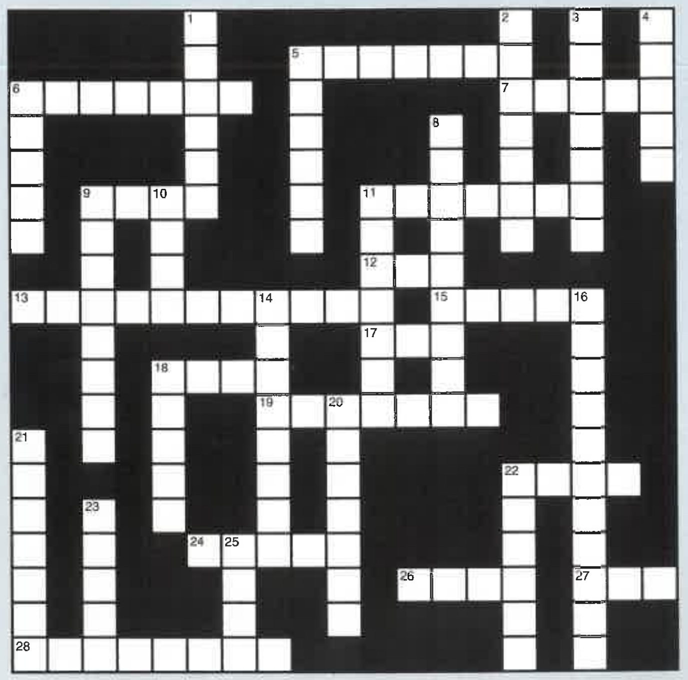
In Montreux, the extreme bullishness of a minority of the delegates helped to push the average price predicted for silver to $16.10, although only 13% chose the $14-to-$16 range, and 8% the $16-to-$18 range. In Mumbai, over half of the delegates thought that silver would be trading near the $16 level next September, which would represent a gain of $1.50 over the price prevailing at the time the votes were cast.

When asked in Montreux where they thought gold would be trading at the time of the Mumbai conference, the average of the responses was $698.60, representing a solid gain from the then-current level of $585. While the direction was right, the price in reality did even better than expected, ranging between $780 and $790 at the time delegates. The final tally of the votes there showed that delegates expected an average price of $843.70 in September 2008. While only 4% of the delegates in 2006 thought that the gold price would be between $900 and $1,000 at the time of the next conference, 28% of those attending in 2007 saw that as the most likely outcome.

Given that the price had already solidly broken the $900 level before the first month of the year was out, the only question remaining was whether those levels would be sustained – or possibly even surpassed – by the time delegates are reaching for their handsets to cast their votes in Kyoto. ■

LBMA Seasonal Crossword

All questions or answers relate (often tenuously) to the seasons. However, if the answer contains a word with one of the seasons in it, such as "springtime", then only the remaining part of the answer ("time" in this case) should be entered. The solution will be posted on the LBMA website on 22nd February. A bottle of champagne will be awarded to the first person to send a correct solution to the LBMA.



Compiled by Yarrum Trawets

Across

5 Four Seasons composer (7)
6 Cliff film (7)
7 Main country celebrating the autumn festival (5)
9 Should have been the show stopper for Hitler in The Producers (4)
11 Derived from the autumn flowering crocus (7)
12 Adult shop (3)
13 Midsummernight's Dream composer (11)
15 Owner of a winter coat used by royalty (5)
17 See 2 down (3)
18 Chinese restaurant staple (4)
19 Actress fan of Percy Bysshe (7)
22 Rugby players (4)
24 Ointment made from winter berries (5)
26 Suburb of Glasgow (4)
27 Official abbreviation for the winter blues (3)
28 Spring symphony composer (8)

Down

1 Dubcek made his name in this (6)
2 (with 17 across) Who said "Now is the winter of our discontent..." (7)
3 Summer Palace location (7)
4 Used for a forward somersault with 2 twists (5)
5 (with 20 down) Happens on 20 March, 2008 (6)
6 Who composed the Seasons? (5)
8 1918 poem by Wilfred Owen (9)
9 Who wrote "in the spring a young man's fancy lightly turns to thoughts of love"? (8)
10 Bernie's brother (4)
11 Jumping dog (7)
14 Druids' day out (8)
16 Winter Daydreams composer (11)
18 Schubert piano piece (5)
20 See 5 down (7)
21 Entertainment venue in Blackpool (7)
22 The other half of 10 down (6)
23 Pre-quartz power source (5)
25 Japanese vermicelli (4)

Mumbai 2007

The LBMA Conference included plenary and parallel sessions, a debate and excursions to some of the local sights. On Sunday evening, delegates gathered on the Chambers Terrace of the Taj Mahal Palace and Tower Hotel for the opening reception. The historic hotel was also the setting for Monday evening's reception and dinner, where delegates left their signatures on a commemorative canvas.

Of Elephants and Yams

Thoughts on PGM Liquidity, Demand and Recycling in India

By Tom Kendall, Precious Metals Strategist, Mitsubishi Corporation UK plc

India is a country that has recognised 22 different languages in its constitution. That has almost 500 different dialects. And that has countless proverbs and axioms. Amongst those is a Malayalam saying from Kerala, which provided the inspiration for the title of this article: "When you are discussing elephants… don't talk about yams."

Which can be roughly translated as: when discussing major issues, don't worry about the details. This article is not designed to examine the finer points of PGM demand in India – the 'yams'. Rather it will concentrate on some of the macro trends – the elephants – that will strongly influence the flows of PGMs in this part of the world in the future.

Demographics and Disposable Income

Demographics is our first elephant, and is very much the dominant bull of the herd.

Chart 1 compares the total populations of India, China and the US (the bars) and their respective per annum growth rates (the dots). As the bars indicate, India has around 1.1 billion people, China, roughly 1.3 billion, and the USA some 300 million. But there is an interesting difference in the growth rates –India's is currently 1.6% p.a. compared with 0.6% in China.

The age structure of the populace is equally as important – Chart 2 shows how many more people under the age of 14 there are in India than in either the US or China. That means that India's working age population – the economically active, in other words – is set to grow at a healthy rate for at least the next 40 years.

So whilst China's working age population will start declining from 2020 onwards, India's will increase until at least 2050. Today, China's working age population dwarfs India's by 230 million, but by 2050 the position will have reversed. Largely due to its one-child policy, China is aging faster than any other country in history and is in danger of growing old before it has grown rich.

It is not just the fact that the number of people in India is increasing that is significant – it is also that they are getting steadily wealthier. The noteworthy items in Chart 3 are not really the large gaps that currently exist between the developed and developing nations, but the huge potential for future wealth creation and spending in the developing countries. At its current growth rate, India's purchasing power parity is set to overtake Japan by 2025 to rank third after the US and China – a prediction that came from none other than Governor of the Bank of Japan, Toshihiko Fukui.

Electronics

Electronics is the second component of our elephantine analogy. Rapid growth in disposable income leads to rapid growth in consumer spending. IT is riding the crest of this wave of money – Chart 4 illustrates how low in per capita terms sales of personal computers and mobile phones currently are in India. US annual sales of PCs are equivalent to almost one for every four people – in India the figure is more like one for every 160. But this disparity is shrinking: the chart illustrates the phenomenal rate at which sales of IT hardware are expected to expand, particularly mobile phones.

The speed at which the telecoms companies are adding new mobile phone subscribers is extraordinary – more than seven and a half million new subscribers in September alone, with the total number expected to reach 250 million by the end of the year – an increase of 85 million in one year. Of course this translates into growth in phone sales, which are expected to top 115 million a year by 2010. PC sales are on a similar, though not quite as dramatic, upward trajectory, growing at almost 30% p.a. on average over the last seven years (Chart 5).

With rising electronic product sales comes rising domestic manufacturing: India is now a large and expanding centre for electronics manufacturing services companies. In this the industry is supported by a strong government desire to reduce the country's import dependence in high tech sectors of the economy.

In 2006 the value of electronics production in India amounted to roughly US$15.6bn, which sounds high but is a small proportion of national GDP compared to some other Asian countries. Again, however, it is the speed at which the sector is projected to grow over the long term that is of note – the Electronic Industries Association of India forecasts that annual growth will average at least 20% for the next eight years.

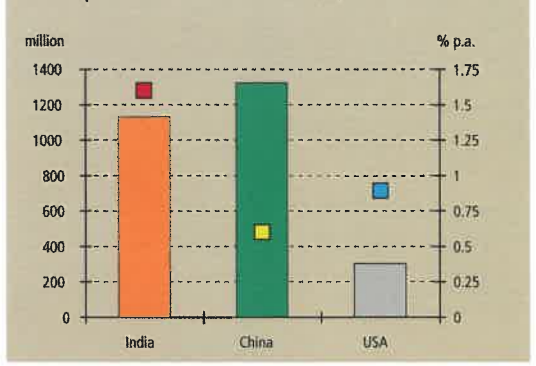
All that growth equates to a lot more demand for platinum-containing hard discs, palladium-based capacitors and ruthenium resistors (not to mention gold bonding wire and connectors, and silver pastes and solders).

The other side of the electronics coin for precious metals is scrap. Here, too, there is substantial growth potential in India. The country currently generates only around 200,000 tonnes of scrap a year compared to around 8 million tonnes a year in the EU. However, if Indian production and sales of electronic goods match the growth rates forecast, then it follows that e-scrap production will also increase almost exponentially over the next few years, rising by a factor of approximately 10 by 2012.

In addition to being a source of e-scrap in its own right, India has also become a major centre of e-scrap imports and intermediate processing (whole component removal, shredding of printed circuit boards, etc).

The industry, if it can be called that, is still largely unregulated and operates very much outside the mainstream economy. There continues to be substantial illegal landfilling and incineration of scrap; the sector is highly inefficient, resulting in low overall metal recovery rates; and it continues to be plagued by serious health and safety problems.

But the situation is changing on a number of fronts, as the combined pressures of legislation, public opinion and profits are brought to bear. Over the next few years we expect to see a substantial reduction in the volumes of waste being illegally buried or burned, and a steady modernisation and consolidation of the informal scrap sector, leading to better metal recoveries and increased precious metal scrap flows.



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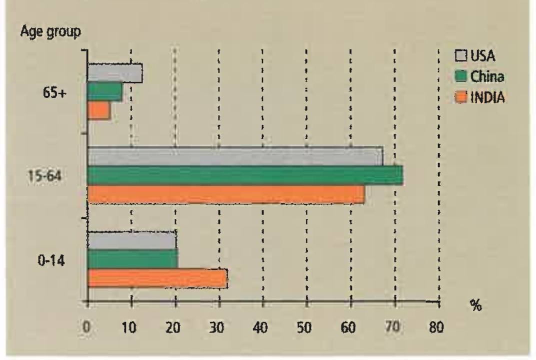
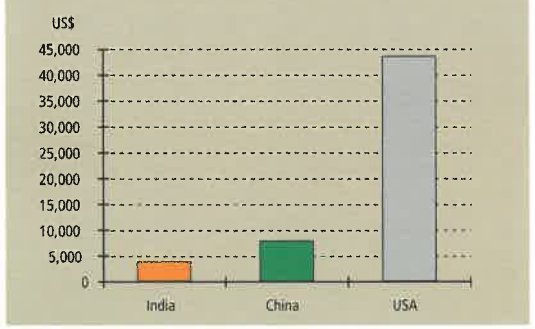
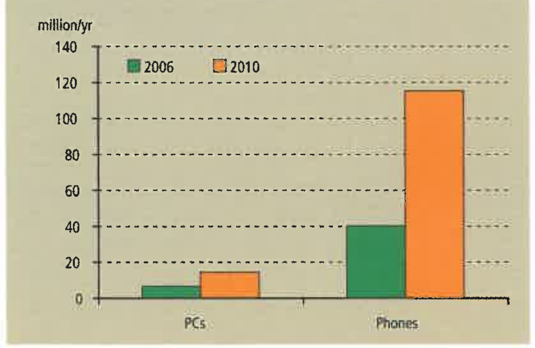


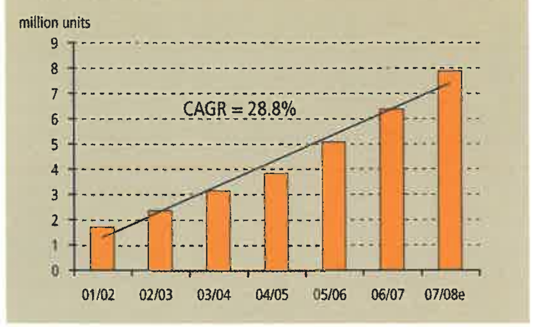
2. Population Age Structure



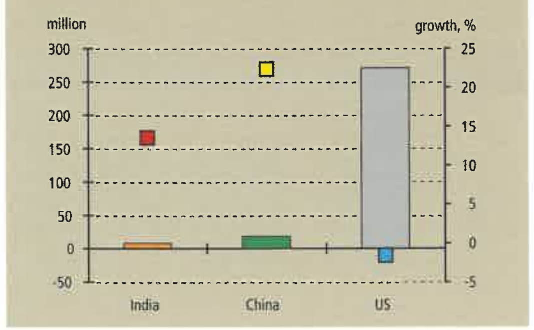
3. Purchasing power Parity, 2006 est.



4. PC & Mobile Phone Sales Forecasts



5. Indian PC sales, 2001-2008e (Apr-Mar FY)



6. Passenger Vehicle Population & Annual Sales Growth

The Automotive/Platinum Sector

Our third pachyderm – the automotive sector – is a restless and rapidly growing juvenile. The total car pool in India is low but is expanding at double-digit percentage rates, though the rate of growth is lower than in China.

Comparisons of per capita car ownership highlight the future potential (Chart 6). One interesting point is that, unlike China, which remains a predominantly gasoline car market, diesels are rapidly gaining ground in India. One of the key reasons is that diesel fuel is substantially cheaper than gasoline in India, typically costing 30% less per litre because of government price controls, versus an approximately 8% differential in China. The growth in the Indian light duty diesel market is strongly supportive of platinum demand.

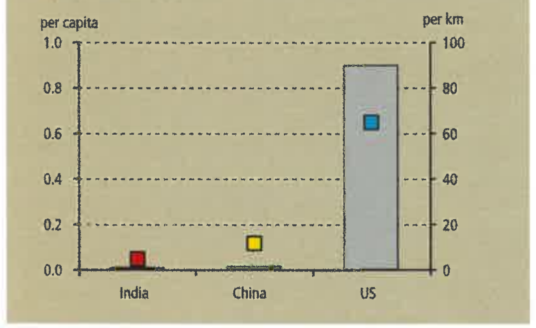
Sometimes infrastructure concerns or overcrowded roads are cited as possible drags on the vehicle market in India, with congestion in Mumbai often highlighted. But in the same way that downtown Shanghai is not representative of China, downtown Mumbai is not representative of India. Chart 7 (page 10) plots not just per capita car ownership (the dots), but the number of passenger cars per km of paved road (the bars), which barely registers on the scale.

That is not to say that everything is rosy for the growth of automotive platinum demand in India – it clearly isn't, and there are some major infrastructural obstacles (as well as other complications such as restrictions on capital flows, import duties and taxation, and excessive regulation).

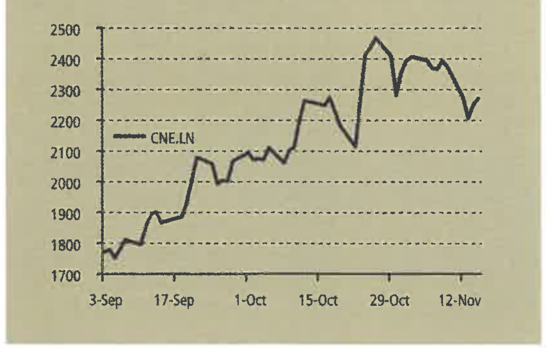
But the situation is improving and serious money is being spent. For example, according to Agence France-Presse, nine trillion rupees of investment in roads is planned over the next five years, earmarked for the improvement and expansion of more than 50,000 kilometres of highways.

Importantly, the spending is coming not just from the government but increasingly from the private sector. The Indian Infrastructure Development Finance Company has already established a $1 billion investment fund with the 3i private equity group and established a second investment fund in partnership with Citigroup and Blackstone towards the end of last year. Ernst and Young expect private investments in infrastructure projects in India to cross the four trillion rupee (US$101 billion) mark in the next five years.

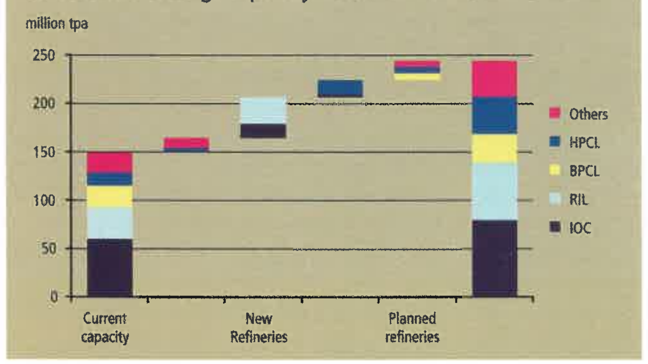
This article is adapted from a speech given at the 2007 LBMA Conference



7. Passenger Vehicles Per Capita & Per km Paved Road



9. Cairn Energy



8. Indian Refining Capacity: Potential Growth to 2012

Petrochemicals

The petroleum refining and petrochemicals business can be considered the matriarch of our group: a little mature but after a lengthy gestation period about to produce several offspring. Currently India has 19 operating petroleum refineries with a combined capacity of around 149 million tonnes per annum (m. tpa). Around 71 per cent of this capacity is under state control.

In theory there is plenty of spare refining capacity in India to service the domestic market. In practice, however, because the local market is distorted by government price controls on gasoline, diesel and LPG, those refineries in public ownership predominantly ship products to more lucrative export markets – the US (gasoline), Europe (diesel) and elsewhere in Asian (gasoline, diesel and kerosene).

The degree to which the various refineries can handle different crude qualities also varies widely. Generally speaking, average crude oil quality is decreasing – it is becoming more sour (higher sulphur) and heavier (requires more cracking/refining to attain end products). This gives a distinct advantage to modern refineries, such as Reliance Industries' Jamnagar complex, given their flexibility to handle lower quality, lower cost crudes.

In considering the potential growth of this sector, structural issues in the domestic market are less important than potential export markets. In its latest five year plan, the Indian government has targeted the promotion of the country as an export-oriented petroleum hub for Asia, with the goal of a 58% expansion of refining capacity to 235m. tpa by 2012 (Chart 8). This may seem ambitious and perhaps a little unrealistic given the cost inflation that the sector has seen recently and the bureaucratic maze that has to be navigated – however, construction has already begun on additional crude refining capacity of 57m. tonnes.

Along with this is coming very substantial growth in downstream production capacity of polymers – the basic building blocks of plastics – reflecting the rapid growth in demand in both the domestic and local export markets. For example, detailed planning for and construction of new paraxylene capacity at Jamnagar, Paradip, and Haldia totalling in excess of 3.5m. tpa is already well advanced.

Despite the rapid cost inflation in the sector, the trend in refining margins is supportive of investment in new capacity. Margins are expected to moderate a little from recent levels but should remain relatively firm in the Asian region until at least 2012. Comparing the margins seen by Indian refineries makes clear the advantage of targeting export markets rather than the domestic market – Reliance Industries consistently enjoys margins that are at least \$5 higher than state-owned Indian Oil.

In October last year, Indian Oil estimated that it was losing around 1 billion rupees a day from selling fuels below cost in India. Although it is compensated in part by the government's issuance of oil bonds, the compensation has been reduced in value by the rapid increase in the price of crude over the last 12 months. And there is no relief in sight: in mid-November, the Indian Oil Minister Oil Minister Murli Deora said that the government saw "no need for an immediate fuel price increase…" and the committee that sets prices took no action at a recent meeting in January. Escalating costs (amongst other factors) have resulted in the cancellation or indefinite postponement of several major refinery projects recently in Turkey, UAE, Indonesia and South Korea. This raises the questions of whether a window of opportunity for India has been opened – and if so, whether the country can take maximum advantage of it.

Conclusion – India: the Elephant in the Corner

In addition to the problems that we have already alluded to, India faces numerous other structural challenges, including:

- De-regulation
- Inflation
- Agricultural stagnation
- Rupee appreciation
- Political stability
- Restrictions on capital flows and FDI.

And not forgetting of course, that old chestnut: bureaucracy.

Examples of bureaucracy in India are as numerous as the country's proverbs. Chart 9 shows the share price of Cairn Energy, whose Indian subsidiary is trying to develop the Mangala oil field in Rajasthan. This highlights what happened to the share price recently when final approval for a pipeline linking the oil field to refineries on the coast was held up yet again by bureaucratic delays and internal government arguments over the project.

However, despite these caveats, in a number of respects India appears to be at a tipping point in terms of the speed of its infrastructural development and industrial growth.

We see the country becoming an increasingly important centre for the PGM industry, not only for primary demand from the autocatalyst, electronics, petrochemical and other industrial sectors, but also as a growing hub of secondary PGM material flows and liquidity.

Hopefully this rapid, elephantine tour has provided some food for thought, and hasn't, in the words of another Indian saying, been like blowing a conch in front of a deaf person (i.e. a useless exercise)! ■

Tom Kendall

In February 2007 Tom Kendall joined the Precious Metals Division of Mitsubishi Corporation from Johnson Matthey Plc. His responsibilities include market analysis, modelling and price forecasting for gold, silver and platinum group metals.

Tom started his career as a minor metals market analyst with Roskill Consulting in London. In 1992 he became a business journalist with the Metal Bulletin Plc publishing group, covering the worldwide non-metallic minerals and mining industries. He left Metal Bulletin in January 2002 to join the precious metals marketing division of Johnson Matthey Plc, where he was in charge of researching and writing the company's twice-yearly platinum market reports. In January 2006 he took on responsibility for managing JM's worldwide market research team, undertaking detailed fundamental analysis of the platinum group metals markets.

Tom holds a BSc in geology from Southampton University.

Market Moves

Colin Griffith to DMCC and DGCX

Colin Griffith is now working as the European Representative for both the Dubai Multi Commodities Centre (DMCC) and the Dubai Gold and Commodities Exchange (DGCX).

During his four years as Executive Director of DMCC, he introduced Dubai Good Delivery, Dubai Gold Receipt and the new national gold coins – Visions of Dubai.

He also planned and implemented the first electronic derivative exchange in the Middle East – the Dubai Gold and Commodities Exchange – DGCX – which opened in November 2005. Colin was Chairman of DGCX until end of October, and during his tenure started contracts with delivery in Dubai for gold, silver, currency, fuel oil and steel.

Diana Kratz to Commerzbank International

Diana Kratz has joined Commerzbank International Luxembourg's Precious Metals desk as an assistant to Jean-Peter Kanstein, the physical metals manager. Diana will be supporting him in the production, distribution and logistics for all of the bank's physical metals products in the group and will integrate the desk in order to centralise and expand the bank's physical trading on a global basis. Diana joins from Commerzbank Frankfurt, where she worked for nearly three years in collateral management. Prior to that, she worked in the credit department of Commerzbank.

The following positions have been filled at Bear Stearns:

Anis Abou-Rahme has moved to Bear Stearns to trade options and pgms. Anis was previously with JPMorgan.

Frank Amato has moved to Bear Stearns to trade and pgms in the company's New York office. He was formerly with JPMorgan in London.

Ollie Beane has taken a position as a senior marketer with Bear Stearns in London. He was formerly with HSBC in London.

Anya Cowen has taken a position as spot dealer in the London office of Bear Stearns. She was formerly with JPMorgan in New York.

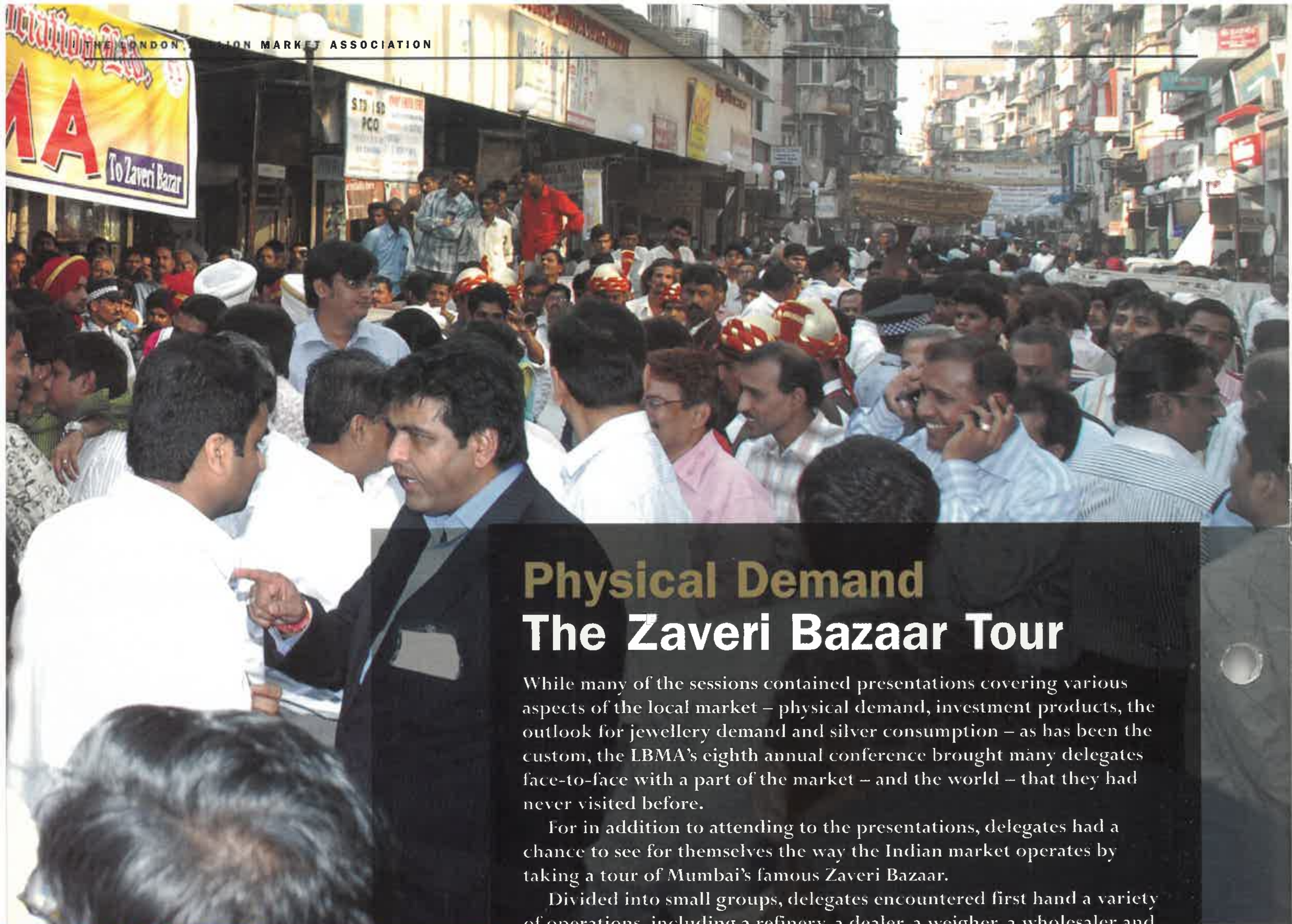
Gordon Cheung has moved to Bear Stearns, with the position of Senior Trader/Marketing. Gordon was formerly with the Hong Kong office of Mitsui.

Elizabeth Eggers, formerly with HSBC in New York, has taken a position with the Bear Stearns Marketing group in New York.

Andrew Ma has gone to Bear Stearns as a Senior PGM Trader in the company's Hong Kong office. He was formerly with Mitsui in the same city.

Jeff Ruffo has moved to Bear Stearns in New York, taking on a position as Senior Marketer. He comes to the company form HSBC New York, where he was head of marketing and hedge funds.

Gregg Smith is the new Chief Gold and Silver Spot Dealer for Bear Stearns in New York. He was formerly chief dealer at HSBC.



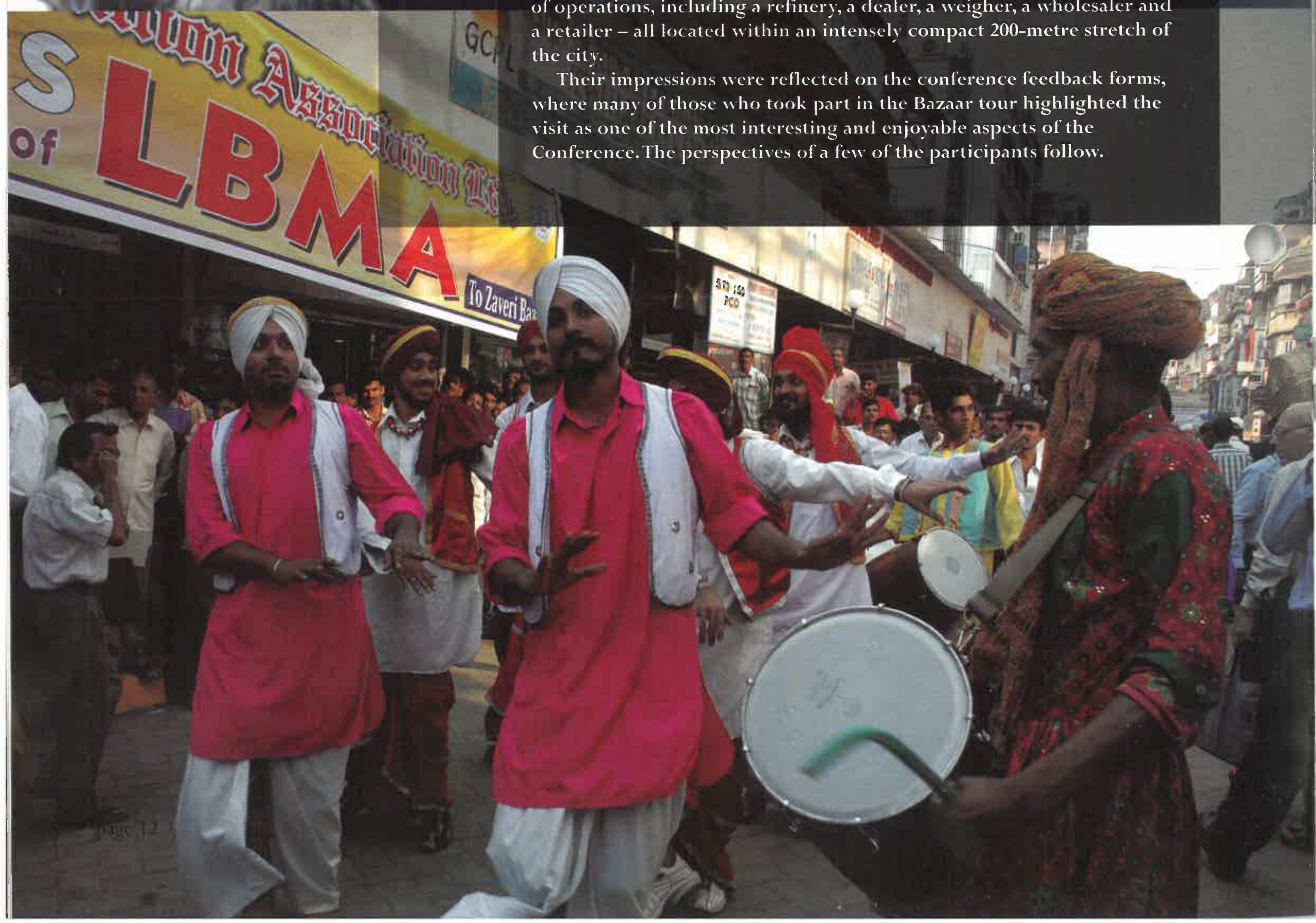
Physical Demand
The Zaveri Bazaar Tour

While many of the sessions contained presentations covering various aspects of the local market – physical demand, investment products, the outlook for jewellery demand and silver consumption – as has been the custom, the LBMA's eighth annual conference brought many delegates face-to-face with a part of the market – and the world – that they had never visited before.

For in addition to attending to the presentations, delegates had a chance to see for themselves the way the Indian market operates by taking a tour of Mumbai's famous Zaveri Bazaar.

Divided into small groups, delegates encountered first hand a variety of operations, including a refinery, a dealer, a weigher, a wholesaler and a retailer – all located within an intensely compact 200-metre stretch of the city.

Their impressions were reflected on the conference feedback forms, where many of those who took part in the Bazaar tour highlighted the visit as one of the most interesting and enjoyable aspects of the Conference. The perspectives of a few of the participants follow.



Adrien Biondi – Commerzbank International

The Zaveri Bazaar was a most overwhelming experience. The kindness of everybody, the interest shown in the delegates and the warm welcome we received at each stop during the tour was absolutely amazing. Seeing an area that is a town in its own right – where thousands and thousands of people buy, sell, exchange, discuss, work, but also live there because they are directly or indirectly involved with gold – was a most interesting experience for me, a trader sitting all day behind his screens and looking at numbers in a room in a suburb of Luxembourg.

The people of the Zaveri Bazaar have done such a great job that I thought: this is not how one receives visitors, but how one receives long-term friends!

Suki Cooper – Barclays Capital

This was an eye-opening experience. We were warmly welcomed and guided through the narrow bustling streets, where there was an amazing selection of gold, silver and gems catering to every budget. The bazaar offered an insight into every aspect of the gold market, from manufacturing to retail, from refining to trading, all taking place within close proximity to each other.

Nick Frappell – Sempra Metals

Stepping out of the hotel car, we were thrown into another world: with a clatter of drums and the ululating screech of Indian horns, we entered the Zaveri Bazaar.

In the next few hours we were privileged to see a part of Bombay that few foreigners witness. We threaded our way up stairs between buildings stained with decades of rain, their air-conditioning ducts wreathed in rust and years of rubbish. Down corridors braided in electric flex and the occasional one-eyed cat, we were led into rooms where fabricators showed their immaculate wares, silver kilo coins, glittering chain and drawerfuls of jewellery.

With a clang of elevator gates, a door would open and we would enter quiet green-lit dealing rooms where Loco Hyderabad could be priced and hedged against the London spot market. Yet, four floors down, a man would drag his shovel across a cement floor, and tip silver scrap into the orange glow of a furnace.

In the Zaveri Bazaar, we saw the precious metals market in full. Fabricators, jewellers, pawnshops, weighers and assayers, and dealers all occupied a tiny yet vibrant district of interlocking buildings.

In fact, the only people missing from the scene were compliance officers....

Serge Gambs – Metalor Technologies

I was very much impressed by the visit to the Zaveri Bazaar, not only by the warmth of the reception given by the Bombay Bullion Association, but also by the extensive area covered by the activities in gold and the number of shops. Also impressive was the infrastructure that has been put in place to serve this industry, including the vaulting facilities at the Reserve Bank of India, the weighing and assaying services and the melting, refining and trading of precious metals.

There is no doubt in my mind that India is and will continue to be a leading consumer and trader of gold.

Stuart Leslie – Standard Bank

The excursion was fascinating and nothing like what I was expecting. From the moment we stepped out of the vehicle, we received a tremendous welcome from the Bombay Bullion Association. We were paraded down the street by joyous dancers, musicians and onlookers all apparently celebrating our arrival. Donning traditional headdress we made our way down the many alleyways and claustrophobic lanes into buildings filled with jewellery stores, workshops and backroom refiners with furnaces burning at over 1,000 degrees.

The extent of the jewellery stores was overwhelming, from shop to shop, all enticing you to enter. I was surprised by the services on offer, particularly for the valuations of old gold pieces, from touchstone to modern X-ray assaying equipment. A real educational experience.

Samantha Trickey – CRU International

For me, this was my first trip to India. It's one thing to study the Indian gold market, quite another to experience first hand a cross section of the country's jewellery trade hub – from refiners to scrap merchants and bullion dealers. What stands out in my memory is the sheer volume of people packed into the narrow streets and the surprisingly high-tech office of RSBL tucked away at the top of one of the buildings.

Matthew Turner – Virtual Metals

One of the highlights of the conference was the trip to the Zaveri Bazaar. To call it simply a bazaar doesn't quite do justice to this bustling hive of industry. This is the epicentre of the Mumbai gold business, a small area of narrow lanes and tenement blocks into which is tightly squeezed the whole gold distribution chain, from refiners and wholesalers to jewellers and bullion dealers. Contrasts abound – not least between the rudimentary and dangerous refineries where workers carried crucibles of molten metal with their bare hands and (albeit at the top of a rickety lift) a modern online commodities trading firm displaying the gold price in real time. ■

Give a Little, Get a Lot – and Provide Liquidity

An Interview with the LBMA's Newest Market Makers

One of the key advantages that the London bullion market offers its participants is liquidity – the ability to execute transactions at a fair price even when market conditions grow increasingly volatile. The responsibility for ensuring that there is always a pool of liquidity in the market lies with the Market Makers.

What differentiates Market Makers from the other categories of LBMA membership is that these companies are required to quote prices to each other upon request throughout the London business day. The original requirements for market making stated that companies must do so in all three product categories – spot, forwards and options – in both gold and silver. This was modified in 2006 to allow companies to make markets in any combination of spot, forwards and options for both gold and silver.

Following the introduction of the new classification, two Members were reclassified as spot Market Makers during 2007: Mitsui & Co Precious Metals, followed by Bear Stearns Forex in December. Both companies successfully completed probationary periods of approximately three months.

The requirements for Market Making are the same for all companies, but not all may approach them in exactly the same way. Tim Gardiner of Mitsui and Robert Gottlieb of Bear Stearns provided their views on how – and why – their companies decided to apply for Market Making status.

Tim Gardiner started his precious metals career in 1989 when he joined Mitsui & Co., London, after receiving an MBA from IMD, Switzerland. He subsequently worked for four years with JP Morgan in Singapore and New York before rejoining Mitsui in 1996. He is currently President and Chief Executive Officer of Mitsui & Co. Precious Metals, Inc., based in New York.

Robert Gottlieb is a senior managing director of Bear, Stearns & Co. Inc. and Global Head of Precious Metals. Before joining Bear Stearns in 2005, he was managing director of trading and sales for precious metals at HSBC. He has more than 20 years of experience in metals, trading and risk management.

Why did your company choose to become a Market Maker?

Robert Gottlieb – We're expanding our metals business because it's an asset class of great interest to our clients. Many fund and asset managers want to diversify their portfolios, and gold and silver are high on their list. As one of the largest prime brokerage houses that deals with thousands of funds, we will leverage off the Bear Stearns client base.

As part of our long-range business plan, we always anticipated becoming a Market Maker – in developing a flow business we need the ability to access the OTC market, and the best way to do that is by becoming a Market Maker. And in staffing our business, we hired from top-tier market-making banks. We have trading and sales specialists in New York, London and Hong Kong.

Tim Gardiner – Market making is something that's been in our business plan for the past couple of years. We felt that there would be increasing and ongoing volatility in the markets, which of course would mean more opportunities to make money. We saw becoming a Market Maker as a good way to position ourselves for this: more counterparts would deal off our spreads, rather than the other way around. We of course anticipated a higher level of flow business.

We were aware that the LBMA was looking for more Market Makers and decided to step forward. Mitsui is a little bit different from other companies in that we don't have a cast of thousands on a multi-product dealing floor – our business is only precious metals. So staffing took on new priorities, especially in today's marketplace.

We've been a global market maker in PGMs out of the three major time zones for the past five years, and we had been making markets in gold and silver out of New York and the Asia/Pacific region for some time now. In addition, our New York office has been an option market maker for many years.

So we felt the need to fill in the missing piece for interbank gold and silver trading: the European time zone. That being said, we have no intention at all to reduce our New York trading team. As opposed to others, I firmly believe in the role of a New York-based trading desk – I feel too much is being asked of centralised London desks these days.

Of course, making markets is a two-edged sword: it means that we have taken on more risk as well. We've had some good days and some bad ones in the last six months, but on balance, we made the right move. Hopefully our action sends a positive message to other companies in the market that might be considering taking the step as well. And I'm pleased that Mitsui was able to show its support to the London precious metals market.

What are the considerations a company needs to take into account before applying to become a Market Maker?

Tim Gardiner – In order to prepare to take that step, a company must ensure that it has the ability to provide consistent, professional service over the long term. You cannot choose to quote the other Market Makers one week and not the next – you have to be there every day. I think it is a key point to ensure that you have the right personnel in place first. It was a base condition of mine in deciding to become a Market Maker.

Robert Gottlieb – For us, a major factor was that we had to progress at our own pace. We had to develop a sufficient flow of business before we applied to become a Market Maker. The other significant point was that we had to have the best personnel on board. I wanted to hire people with experience in every angle of the market – who, given the volatility of the commodity markets, would be prepared to deal with the unexpected. We had to have both of those elements in place first.

Becoming a Market Maker is a serious commitment – it shouldn't be something you try and then decide after the fact that it's not right for you. Of course, it's not always fun. Every Market Maker gets their share of the business, but no one company sees it all. Some days you have to give something back to the market. Knowing that will happen, you have to weigh that against your business flows in deciding whether it's the right move.

Did you notice a difference in your dealing relationships with other companies after having attained Market Maker status?

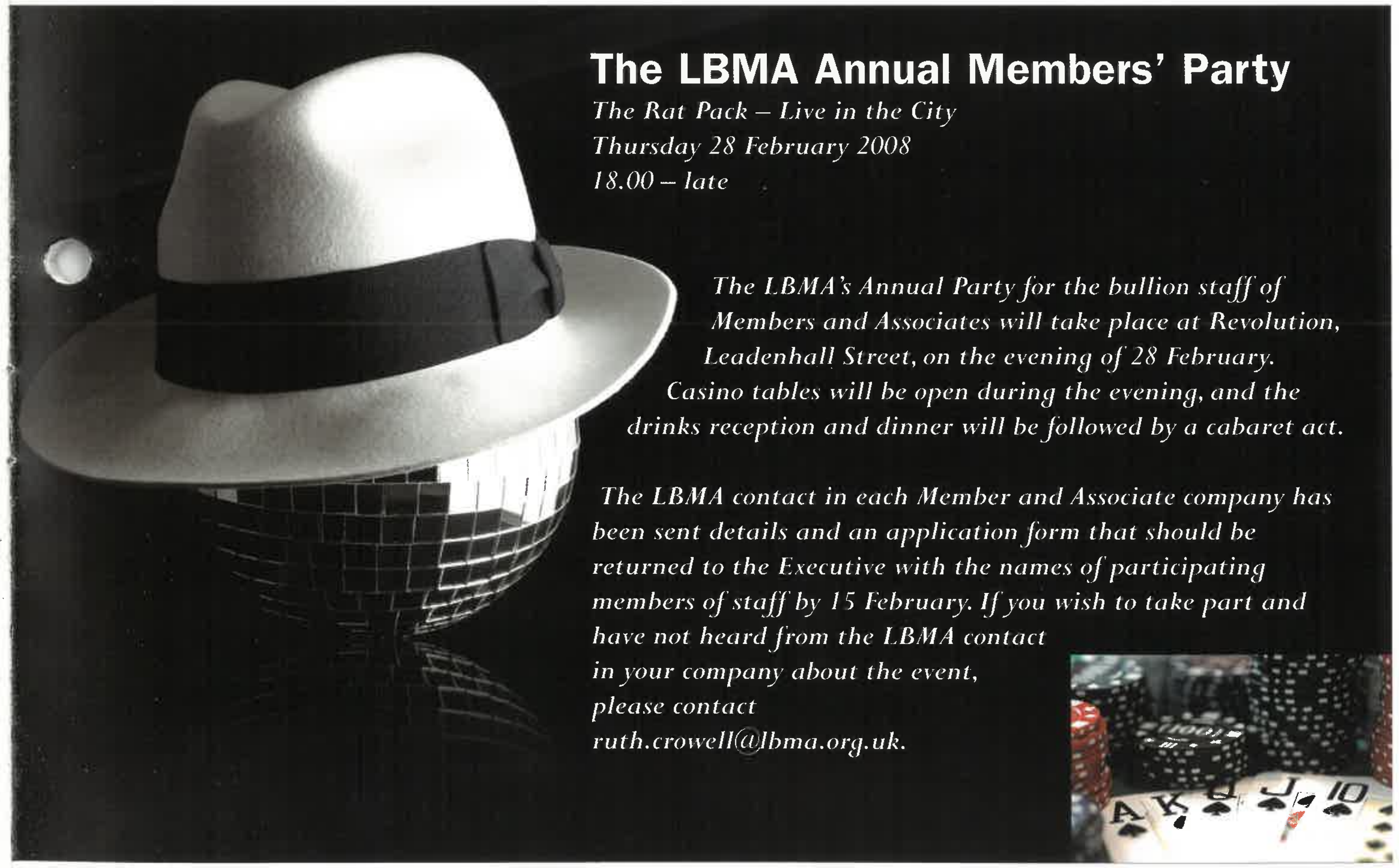
Tim Gardiner – Yes, I'd say that there was a difference – I think there is a new measure of respect in how other professional counterparts in the market see us. And our clients also saw it as a very positive step.

Robert Gottlieb – When we started the business here, customers had wanted to know what our commitment to the market was. Telling them that we planned to become a Market Maker proved to them that we had a strong commitment – we were here for the long run. Because we had stated our intentions from the beginning, we didn't see that much of a change in how we were treated by other companies after having achieved market-making status.

What do you see as the benefits of Market Making to the company – and to the market in general?

Robert Gottlieb – We gain, because it gives us the ability to hedge our risk. We have to quote our customers every day, and we can't rely exclusively on the exchanges for liquidity: we need to call out to the market, as well as provide liquidity back to the market – which means that the market gains as well.

Tim Gardiner – Becoming a Market Maker increases a company's commitment to the precious metals industry. We are very pleased to be able to give back liquidity that was, perhaps, taken for granted as a market user. I'm confident that we made the correct decision – one that clearly raises our status in the market. ■



Gold Futures Trading Debuts in Shanghai

The Shanghai Futures Exchange (SHFE) launched China's first gold futures contract at 9:00 am on Wednesday, 9 January. The initial transaction of one 1,000-gram contract was between seller Zhongjin Gold Co. and buyer Jiangxi Copper Co.

Approval for the landmark renminbi-denominated contracts was given by the China Securities Regulatory Commission in December 2007, the fifth futures product to receive approval over the course of the year. At the launch ceremony in Shanghai, the Commission's Chairman, Shang Fulin, stressed the financial nature of the precious metal and called for 'joint efforts for the stable operation' of the new futures product. He also said the gold futures would improve the country's domestic gold market and pricing mechanism and give options for financial institutions, gold producers and consumers to hedge market risk. The new contract also served to further expand the country's relatively underdeveloped futures services.

Feng Guoqin, deputy mayor of Shanghai, who also attended the opening ceremony, welcomed the addition of the new contract to the SHFE, saying: 'Gold futures trading reflects the quickening pace of the development of Shanghai as an international financial centre.'

Trading hours are from 9 to 11:30 am and 1:30 to 3:00 pm Beijing time each weekday. Currently the most active contract is for June delivery, with seven contracts trading in all. For the first day of trading, contract price movement was limited to 10 percent of the reference price, but returned to the normal limit of 5 percent thereafter.

Four gold mining companies received approval from the SHFE as the first gold futures proprietary traders. They are: China National Gold Group Corporation, Shandong Gold Mining Co., Ltd, Shandong Zhaojin Group Co., Ltd and Zijin Mining Group Co., Ltd.

The size of the contract – 1,000 grams, determined after a period of public consultation – is designed to attract institutional investors as well as to facilitate the exchange's integration into the global market. The minimum margin requirement has been set at 7 percent. Under the rules, individual investors are not allowed to keep their positions in the spot month, as individuals have other options for purchasing physical metal – via a bank or the cash market.

Three domestic commercial banks have been approved as designated gold delivery warehouses: Industrial and Commercial Bank of China Limited, China Construction Bank and the Bank of Communications. A total of 65 trademarks have been registered with the SHFE, nine of which are from domestic companies. The minimum deliverable fineness for these companies is 99.95%. The remaining companies, which are based overseas, are sourced from the LBMA's Good Delivery List, which was also ratified by the SHFE. ■

Above left – Shang Fulin, Chairman of the China Securities Regulatory Commission

Above – Feng Guoqin, Deputy Mayor of Shanghai at the opening ceremony

Photos courtesy the Shanghai Futures Exchange

2007 Forecast Winners

Stewart Murray presents two of the winners of the 2007 Forecast with their prizes, one-ounce gold bars donated by PAMP SA. At right, Glyn Stevens, the winner in platinum; at far right, Ross Norman, the winner in gold.

Where More is Less

Clearing Transactions are on the Rise, Albeit Much Smaller in Size

By Michael Jansen, Base and Precious Metals Strategist, JP Morgan Securities Ltd

The monthly clearing statistics published by the LBMA are a very useful barometer of activity in the London OTC gold and silver markets. Unfortunately – unlike conventional exchange volume numbers, which record every lot traded – clearing statistics only capture the end-of-day transactions between the clearing accounts. All transactions that take place over the course of the day between any two given counterparts are netted at the end of the day and a single transfer of the net amount is made.

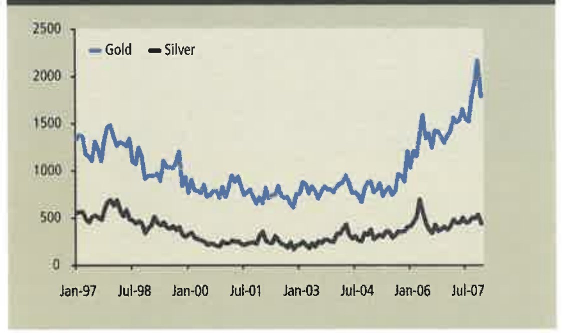
Clearing statistics are not, therefore, a true representation of the absolute turnover in the market. In fact, the methodology by which the statistics are collected clearly underreports true trading activity in the London bullion market. However, even allowing for the limits of the coverage, there are some useful themes emanating from the data, especially in light of the move towards increased transaction activity in 2007, which was especially true for gold late in the year. Indeed the number of transfers in gold in November reached a record average of 2,165 per day, with the daily average cumulative ounces transferred reaching 25.2moz, the highest level since mid-2006. The average daily value of $20.3 billion also reached a record (for more about how the statistics are calculated, see 'About the Figures').

ETFs – A Driving Force?

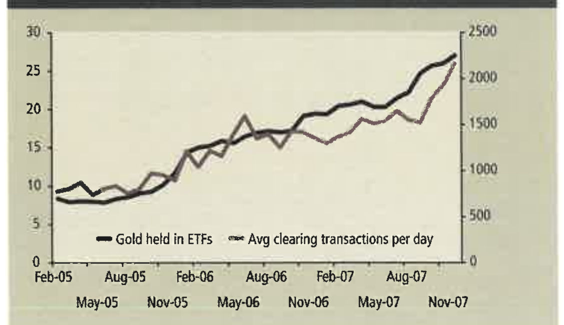
It is interesting to note that while the number of gold clearing transactions per day escalated sharply in 2007, this was not the case for silver – although the annual average number of transfers increased year-on-year, the level remained well below that seen in 1997-1998, when clearing statistics were first published. November 2007 – the month in which gold transfers reach their record high – was not a bad month for silver either – there were 533 transfers per day, the highest level for the year. This was a solid 40% up from November 2006 but, as shown in Chart 1, was well below the March-May period in 2006, when the average number of daily transfers was nudging 600 per day, with the highest number of transfers recorded in April that year.

What might have been the cause of the increase in the number of clearing transfers in silver during that time? March to May 2006 was the period when spot silver prices

1. Gold and Silver Clearing Transfers per Month



2. Gold in ETFs and Clearing Volumes



rocketed from under $9/oz to above $15/oz, a multi-decade high that was only exceeded in late 2007. The driving force behind the rampant silver price was most likely speculative buying/market positioning ahead of the release of the iShares silver ETF, which grew rapidly in size through the Q2 and Q3 period. Subsequently the silver ETF has posted very subdued, incremental growth in ounces that has, as indicated in the data, caused little end-of-day dislocation between London clearing accounts.

Meanwhile the gold ETF sector continued to grow at a far faster pace during 2007, and this may be largely responsible for the sharp increase in the number of clearing transfers. The aggregate number of ounces held by the main gold ETFs (Streetracks, iShares, Lyxor/GBS, ASX, ETFSecurities and NewGold) is shown in Chart 2, against the daily average of clearing transfers in gold.

The manner in which ETFs influence clearing statistics can be described thus: when a customer buys a share in a bullion ETF, it can be delivered from one of two sources – an ETF share trading in the secondary market or, if there are none available at the broker level, through the creation of a new share through the purchase of gold or silver via the OTC market. When the market is growing, this leads to the constant creation of ETF units and, in turn, likely leads to imbalances between the bullion banks that supply the gold and the custodian holding the gold. These imbalances need to be netted end of day.

Why More Equals Less

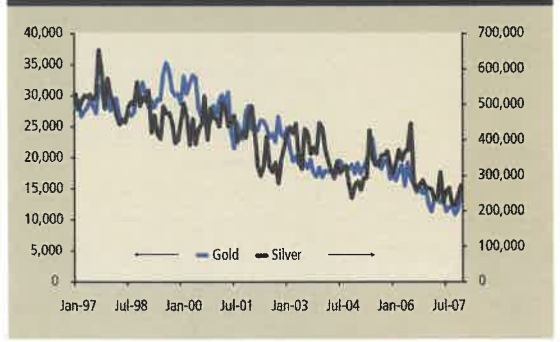
As Table 1 shows, another barometer of bullion market activity – the average ounces transferred per business day – was in 2007 a mere shadow of the levels seen in the late 1990s. Indeed, the current gold market is one in which more clearing transactions are taking place, but the average size of these transactions and the absolute quantum of metal cleared between accounts is considerably smaller – this is clearly illustrated in Chart 3. During the first three years of the statistics (1997 – 2000), the average size of each gold transfer was 30,000oz – 35,000oz, while the average size of each silver transfer was 500,000oz – 650,000oz. In 2007 the average size fell to 12,000oz in gold and just under 250,000oz in silver.

The creation of ETFs in the gold and silver bullion markets accordingly has helped to increase the number of clearing transfers, but these have been significantly smaller in size than those of the late 1990s. And in reality this makes sense, as the ETF sector features buyers, generally of a retail nature, all of whom are likely buying only modest parcels of bullion, thus leaving the clearers with relatively small end-of-day netting transactions.

Another potential reason why there are more transfers may be because there are now considerably more participants in the OTC bullion market relative to the late 1990s, evidenced by the increase in the number of new Members and Associates in the LBMA. Over the past three years, a total of 18 companies have joined the LBMA membership, ten of these during the last year. Many if not all of them are likely to have end-of-day imbalances with other counterparts in the system, albeit ones that are smaller in size.

A change in the business model of bullion banks towards consignment accounts may also help explain the smaller size of transactions between the clearers, a trend that has been present for the past few years. As Peter Smith explained in an article in *Alchemist* 32, 'When customers purchase out of the consignment account and the metal is hedged loco London, these transactions tend to occur in small increments, so that might contribute towards a lower number of ounces per transfer on average'.

3. Gold and Silver Clearing Size - Avg per Transfer



Another logical – and very important – reason why the size of the transfers in both gold and silver has declined in recent months is the slowdown in the pace of producer hedging. The global gold hedge book (i.e. gold sold forward on a delta-adjusted basis) is currently around 30moz– significantly lower than the 100 to 110moz seen in the late 1990s/early 2000s. The hedge book peaked in the early 2000s as gold producers rushed to hedge future production, which itself was being boosted at that time through technological advances and exploration-driven growth in new mine supply.

Less producer hedging means less gold being leased from the central banking system, leading to lower lease rates and, in turn, less large-scale spot market activity. Indeed the collapse in lease rates, which remain at historical lows in spite of the upwards move in interest rates in the wake of the subprime / liquidity crisis, has served to generally undermine 'traditional' activity in the gold market. The introduction of ETFs and gold's thematic value as a refuge in troubled financial times have partly turned the tide of softer activity in the London bullion market, but aggregate end-of-day clearing volumes look likely to remain lower for the medium term, certainly until a cyclical rebound in producer hedging activity takes place. ■

Michael Jansen

Michael Jansen is an Executive Director at JPMorgan. He has been at the firm since October 2006, and is responsible for research coverage of the base and precious metals markets for the bank's Global Commodities Group. Prior to joining JPMorgan, he worked for National Australia Bank in Sydney and in New York, responsible for commodity and financial markets research and the marketing and structuring of commodity derivative products for corporate and institutional clients. Michael's a broad experience in commodity markets comes of having held a variety of roles of increasing responsibility in metals and agriculture over the past 13 years.

About the Figures:

The Monthly LBMA Clearing Statistics

The figures – released monthly as a narrative overview with supporting charts – detail the volume (in millions of troy ounces) transferred on average each day, the US dollar value of that volume (applying the monthly average London pm fixing price for gold and the average London spot fixing price for silver) and the average number of transfers each day. In order to minimise double counting, the clearers only record the debit side of each transaction.

The figures consist of:

- Loco London book transfers from one party in a clearer's books to another party in the same clearer's books or in the books of another clearer
- Physical transfers and shipments by clearers
- Transfers over clearers' accounts at the Bank of England.

Excluded from the statistics are:

- Allocations between clearers where the sole purpose is for overnight credit
- Physical movements arranged by clearers in locations other than London.

Table 1 – Clearing Statistics Annual Averages

Gold	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	overall
Avg ozs transferred	36.8	33.4	31.0	23.1	21.5	17.8	15.7	14.9	16.5	21.5	20.3	23.1
Avg value	$12.1	$9.8	$8.6	$6.5	$5.8	$5.5	$5.69	$6.09	$7.38	$13.05	$14.27	$8.67
Avg no. transfers	1,285	1,188	1,007	793	802	729	801	828	863	1,321	1,649	1,027
Silver	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**overall**
Avg ozs transferred	294.2	247.9	185.1	115.7	108.0	87.0	92.5	103.8	110.5	146.9	114.4	148.5
Avg value	$1.46	$1.39	$0.96	$0.58	$0.47	$0.40	$0.45	$0.69	$0.81	$1.70	$1.54	$0.96
Avg no. transfers	550	503	405	256	241	241	233	326	331	447	462	366

LBMA News

By Stewart Murray, Chief Executive, LBMA

MEMBERSHIP

Members

Following an approximately three-month probation period, Bear Stearns Forex Inc was reclassified as a spot Market Making Member with effect from 19 December 2007. Bear Stearns is the second company to have taken advantage of the modified arrangements for market making, whereby companies can apply to be classified as market makers in any combination of spot, forwards and options. For more, see the interview on pages 14 and 15.

Natixis Commodity Markets relocated in January to Cannon Bridge House, 25 Dowgate Hill, London, EC4R 2YA. Telephone: 020 7090 1200.

Associates

The CME Group (formed as a result of the merger of the Chicago Board of Trade and the Chicago Mercantile Exchange) was admitted as an Associate on 1 January 2008.

The total membership now stands at 114 companies, comprising 11 market makers, 55 ordinary members and 48 associates. During 2007, membership increased by nine.

Subscriptions

January is of course the month when membership subscriptions are sent out. Once again subscriptions remain unchanged (as they have since 1999). We hope that all Members and Associates will pay their subscriptions promptly, without the need for chasing on our part!

GOOD DELIVERY LIST

Gold

The Shandong Zhaojin Gold & Silver Refinery Company of Shandong Province, China, was admitted to the Gold List on 13 December 2007.

The Japan Mint of Osaka (which is already on the Silver List) was admitted to the Gold List on 13 December 2007.

Silver

The Shandong Zhaojin Gold & Silver Refinery Company of Shandong Province, China, was admitted to the Silver List on 13 December 2007.

The company that operates the Jinchang Smelter in Tongling City, Anhui, China, changed its name from Anhui Tongdu Copper Stock Company to Tongling Nonferrous Metals Group Company with effect from 19 September 2007.

COMMITTEES

Management

The Management Committee met once in the past quarter to review the work and recommendations of the subcommittees (described below) and the applications for membership (see above). In addition, the Committee approved the initiation of a project to prepare solid-sample reference materials for use by Good Delivery refiners and others for the validation of spectrometric analysis equipment for gold and silver. (See the sidebar opposite.)

The Committee also approved donations to the charities supported by the Lord Mayor of London and the Friends of Hillside (which caters for children with severe learning difficulties).

Physical

The Committee has met on four occasions during the past quarter. In addition to approving the applications for the Good Delivery List described above and monitoring progress with three further applications, the Committee has also reviewed the results from the second cycle of proactive monitoring of companies on the Good Delivery List.

One of the important functions of the Physical Committee is to monitor the physical quality of bars arriving in London so as to ensure that the high quality for which the Good Delivery List stands is maintained in all cases. Particularly with the rise in precious metal prices over recent months, there have been some examples of quality control standards at refineries slipping, and the Executive has contacted those refiners where it was felt that attention to quality control was necessary.

The Committee continues to investigate the possibility of finding an alternative to beam-balance weighing for Good Delivery gold bars. Electronic weighing of silver is used as standard in the London Bullion Market, but the problem in finding a satisfactory electronic balance for gold is the need to match the high accuracy and repeatability of the beam balance.

The Committee has also reviewed the discussions between the Executive and the referees concerning the list of elements to be used in the spectrographic analysis of gold and silver. Once agreement is reached, all refiners on the Good Delivery List will be informed of the recommended list, though it is not intended that this should become a compulsory list of elements to be analysed.

Discussion of the Good Delivery status of bars coming out of deep storage has continued within the Committee with a view to preparing a visual guide to acceptability that can be used to help identify bars that do not meet current standards due to physical defects.

Public Affairs

Tim Wilson, the chairman of the Committee for the past two years, has stepped down from that position owing to an impending relocation to Singapore, though he will remain as a member of the Committee. The new chairman is Kevin Crisp of Mitsubishi, who is already a member of the Management Committee.

The Public Affairs Committee has been busy recently making plans for the LBMA's annual conference, which is being organised as a joint venture with the London Platinum and Palladium Market. The Conference will take place in Kyoto, Japan from 28 to 30 September 2008. See the call for papers (and ideas!) below left.

Finance

The Committee met as usual in October to prepare a budget for the coming year. Following several years in which a surplus was generated, the budget for 2008 is for income and expenditure to be closely balanced. ■

A Date for your Diary

The LBMA's Biennial Dinner will take place on 20 November 2008. The venue will once again be Goldsmiths' Hall. The Executive will be contacting Member and Associate companies nearer the date of the event with further information and a registration form.

Conference 2008

Call for Papers (and Ideas)

This year's conference will be organised as a joint LBMA/LPPM event and will take place in Kyoto, Japan from 28 to 30 September. Traditionally, the task of selecting speakers for the conference has fallen to the LBMA's Public Affairs Committee.

This year, the LPPM is also involved in this task. But in addition, this year we would like to solicit suggestions for speakers and ideas for topics from the *Alchemist* readership. The conference sessions will range over a number of themes, and although these have not been definitively established, they are likely to include the following:

- **The environment for the precious metals market** – Economics, geopolitics, social and demographic trends
- **Conditions in the bullion market** – Response of various sectors of the market and the industry to the rise in prices over the past two years (if maintained!) and the volatile trading conditions for precious metals
- **Significant technical developments affecting use of the precious metals** – This is likely to be a particular theme for the PGM section of the conference, though there may be technical gold and/or silver papers
- **The role of London** – Intermediation, risk management, insurance, Good Delivery and vaulting
- **Debate** – A topic of concern to the market that can be persuasively argued from opposing sides.

The above is just for guidance, so if you have a suggestion for an interesting paper that does not appear to fall within the scope of these categories, feel free to send it in.

Anyone who wishes to submit a paper for the conference should send an abstract of 300 words to the Chief Executive (stewart.murray@lbma.org.uk) by the end of February. Alternatively, you may have a suggestion for a speaker whom you have heard at another conference and who could make a useful contribution to the conference, or you may wish to suggest a particular topic that would be of interest to delegates attending.

DIARY OF EVENTS

February 2008

4 – 7
Mining Indaba 2008
Cape Town, South Africa
T: +1 314 824 5516
F: +1 314 824 5603
www.iiconf.com

20
49th Minesite Mining Forum
London
T: +44 (0) 20 7395 1935
F: +44 (0) 20 7395 1931
www.minesite.com

20 – 22
CIS Precious Metals Summit
Moscow
T: +44 (0) 20 7490 3774
maria@adamsmithconferences.com
www.adamsmithconferences.com

March

2 – 5
PDAC 2008 International Convention
Toronto, Canada
T: +1 416 362 1969
F: +1 416 362 0101
info@pdac.ca
www.pdac.ca

12
50th Minesite Mining Forum
London
Details as above

April

9
GFMS Gold Survey 2008
London, Johannesburg, Toronto
T: +44 (0) 20 7478 1777
info@gfms.co.uk
www.gfms.co.uk

22
51st Minesite Mining Forum
London
Details as above

24
GFMS Platinum & Palladium Survey 2008
London, Johannesburg
Details as above

May

7 – 8
World Silver Survey 2008
New York, Mexico City
info@silverinstitute.org
www.silverinstitute.org

12 – 13
Hard Assets Investment Conference
New York
T: +1 314 824 5516
iiconf@iiconf.com
www.iiconf.com

Reference Materials Project

This project originated in the discussions that took place at the LBMA assaying seminars held in 2005 and 2007. It became apparent that there was a need for solid-sample reference materials containing well defined amounts of a range of commonly occurring impurities.

Following approval of the start-up by the Management Committee, the first meeting of the Project Steering Committee took place at the LBMA offices in January under the chairmanship of Mike Hinds of the Royal Canadian Mint. The other members of the Committee include the Great Wall Gold and Silver Refinery (China), Metalor Technologies SA (Switzerland), the Rand Refinery Limited (South Africa), Tanaka Kikinzoku Kogyo KK (Japan) and Umicore SA (Belgium).

The aim of the project is to produce high-quality reference materials in gold and silver (two different materials in each case containing low and high levels of some 20+ commonly occurring impurity elements). Manufacturing of the reference materials will commence only when sufficient Good Delivery refiners have committed to purchasing them. An offer document allowing advance purchases to be registered will be sent to Good Delivery refiners by the end of the first quarter of 2008. Once the samples have been manufactured, checked for homogeneity and analysed through a collaborative process (involving 10 laboratories) samples will be distributed to advanced purchasers and will then be made available for sale to other laboratories (including Good Delivery and other refiners, independent assayers and equipment manufacturers). At this stage it is difficult to forecast exactly when the samples will be available, but it is projected that the reference materials will be available in 2009.

The Increasingly Public Role of the PAC

Editorial Comment by Kevin Crisp, Manager, Precious Metal Dept., Mitsubishi Corp. UK plc

For those involved in the precious metals market, early 2008 shows no sign of slowing down: it's lining up to be another epic year for the bullion markets.

Rising prices and volatility present both challenges and opportunities for the banks, traders and refiners that constitute the main membership of the LBMA. However, we mustn't forget the implications that this situation has for the growing number of market participants who either use precious metals in their day-to-day business or who trade or invest in precious metals privately or institutionally.

The proverbial "man on the street" is now fully aware of precious metals prices, and market commentary is a regular feature of mainstream media around the world. In such an environment it is of course beholden on the LBMA to play an active role in ensuring that the market functions properly, and that the core values established by the London bullion market over the years are communicated and understood by everyone.

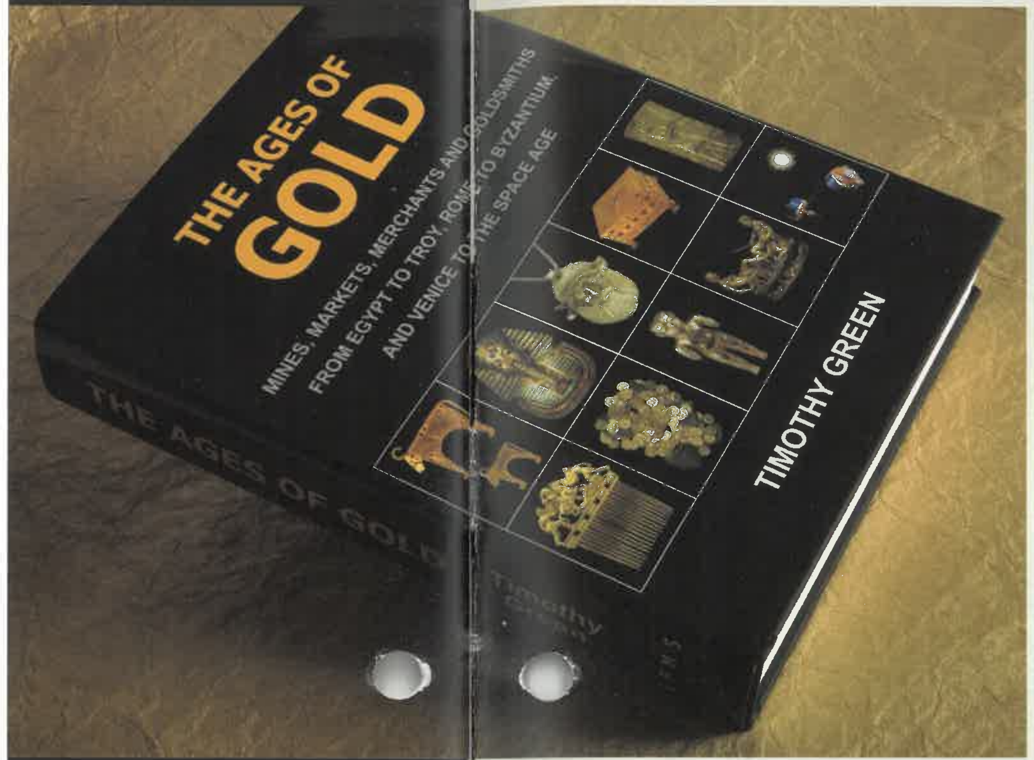
It is the role of the LBMA's Public Affairs Committee – the PAC – to support the LBMA's Executive and the Management Committee in communicating with the membership and the wider market.

And as the new Chairman of the PAC, I would like to begin by offering my thanks – first and foremost to my predecessor, Tim Wilson of JPMorgan Chase, who is taking up a new assignment in Singapore. We are very pleased that Tim will continue to contribute to the PAC with first-hand opinion and input from Asia. I would also like to thank the existing members of the PAC for their great contribution on a whole range of issues at our regular meetings. Time is itself an increasingly precious commodity these days and the PAC members give much of their time over the course of the year to the benefit of the whole market.

That is not to say that we do not welcome input from all market members on the issues addressed by the PAC. Indeed, we strongly encourage anyone with thoughts and ideas about how the LBMA can better communicate with its members and market users to step forward and tell us. If you have something to say, you are encouraged to contact the Chief Executive, who will raise the issue with the PAC.

Among the PAC's main functions in the year ahead is to contribute to organising the LBMA's Precious Metals Conference, an increasingly important and popular annual fixture since the first event in Dubai in 2000. Last year's conference in Mumbai finally took us to gold's greatest consumer market. It was an unforgettable experience and, fair to say, an organisational challenge overcome in part thanks to the great support received from LBMA Associates in India. Not for the first time, though, the success of the Mumbai Conference was in the largest part due to the hard work of the LBMA Executive, often above and beyond the call of duty. As always, a huge 'thank you' to Stewart and his team.

This year's conference will be held in Kyoto from 28 to 30 September. For the first time, 0the conference will be held jointly with the LPPM. With interest in all precious metals so high, the timing of such a joint conference in Asia could not be better. The PAC is already working closely with the newly formed Conference Subcommittee of the LPPM to put together a stimulating and informative speaker programme in Japan, a programme that will cater to the needs not just of LBMA and LPPM members, but to industrial users and investors in Asia and the rest of the world. I look forward to seeing you in Kyoto. ■



The Ages of Gold

by Timothy Green

After forty years writing about the modern market, Timothy Green's latest book investigates gold's history. In this article, he records highlights.

Setting out to track gold over the last 6,000 years you cannot be sure what you will find. Of course, there are the famous set pieces. The 'wonderful things' found in Tutankhamun's tomb (currently in London) or the treasures of Troy and Mycenæ unearthed by the maverick archaeologist Heinrich Schliemann, who first made money in the California gold rush as an agent for Rothschilds in London. The Roman aureus coin, in which legionnaires were paid, circulated over an area larger than the present eurozone. Venice pioneered the first daily gold 'fixing' on the Rialto and its ducat was up to London Good Delivery status, while the British sovereign became the symbol of the gold standard. But the story of mines, markets, mints and goldsmiths is full of intriguing insights.

Ancient prospectors thought gold grew in the ground, like an exotic truffle, so early geology was akin to gardening as they sought fertile patches. The key, though, was that, prior to the Californian and Australian gold rushes of the 1850s, gold was indeed a rare metal. Annual output was at best 10m tons – and often much less – for centuries at a time. By contrast, California and Australia each yielded 100m tons, and output now is 2,500m tons.

Despite this scarcity, gold's trump, beyond its natural beauty, was its unique properties of conductivity, ductility, malleability and resistance to corrosion, which meant it was valued in differing ways by successive ages. In the beginning it was easy to fashion into ornaments, but its versatility made it adaptable into the glowing tesserae of Byzantine mosaics, the exotic sculpture of Benvenuto Cellini's salt cellar, and now in electronics for integrated circuits in iPods and space probes. The long-term stability of its price also earned it an enduring reputation as a safe haven when currencies or countries were under siege.

The challenge is to get the right perspective on gold's output and value – statistics were sparse in the ancient world. The breakthrough came with the first coins minted by Croesus of Lydia (now western Turkey) around 550 BC. Coins required consistent fineness to become acceptable, achieved by the advance of adding salt in the refining process, resulting in the 'parting' of gold and silver.

The coins of Croesus were 990 fine and weighed just over 8 grams. His coins, and their successor, the Persian daric of 8.35 grams, became the standard for paying troops. The Greek general Xenophon paid his men one gold daric per month, around \$200 at today's price, with a bonus of 1.5 darics when fighting got tough. Under the Roman Empire, soldiers received nine aurei annually (\$1,800); the yearly budget for a legion of 3,000 men was over \$5.5 million.

The first major international transfer of reserves, the treasury of Darius of Persia seized by Alexander the Great in 330 BC, was also significant. By my estimate the treasure, contained up to 40m tons of gold, now valued at nearly \$1 billion, with silver worth an additional \$170 million. Alexander's senior officers got gold bonuses that would now be worth \$60,000.

China, however, holds the record for ancient reserves. The Han dynasty emperor Wang Mang (AD 2-24) amassed a stock estimated at 155m tons (no mean quantity, given that China currently declares official reserves of only 600m tons). The emperor's chief ministers received annual salaries, quoted in gold, worth over \$365,000, not out of line with modern politicians.

The Roman Emperor Nero set another record: a recoinage of the aureus (AD 64-7) issued over 120 million new coins calling for 240m tons of gold from scrap, recycled coin and newly mined Spanish gold. Not until the 1850s did the mints of Britain, France and the United States, flush with gold from Australia and California, outdo Nero. Before that the only serious challenge came from a recoinage of the guinea in Britain (1773-6), when the Royal Mint used 155m tons.

Gold for that recoinage was marshalled for the Bank of England by their broker, Mocatta (now ScotiaMocatta). The Mocatta dynasty already had a century's experience in the London market, having sent their first gold to India in 1676. The firm became broker to the nascent Bank of England, working in tandem with the Bank's Bullion Office, the crossroads of precious metal, as London cornered gold from a rush in Brazil between 1700 and 1760 that underpinned the guinea and enabled the Bank to build the first central bank reserve. Although Rothschilds and Sharps became active in gold after 1800, the Mocatta-Bank alliance lasted until 1840.

The working of that market was revealed by the 1810 Bullion Committee of the House of Commons looking into the high price of gold during the Napoleonic wars (as opposed to the stable price of the previous century). The Committee heard evidence from market-makers, merchants and refiners. A Mocatta partner, Aaron Asher Goldsmid, was first witness, explaining how the daily price was determined and the crucial role of the Bank of England's Bullion Office. The investigation was the most detailed study of the gold market ever undertaken (there is no modern parallel). John Kenneth Galbraith once wrote that, 'The debate it provoked was the most famous in all history on money and its management'.

Thus the market had the experience to shoulder the soaring output that California and Australia produced in the 1850s, most of which came through London en route to new coinage on the continent and rising hoarding demand in India. The 'famous' five brokers, who still existed into the 1960s, were all in business shortly after 1850.

Real change did not come until after 1968, when the fixed price of \$35 an ounce, set by President Roosevelt in 1933, was suspended. The last forty years of the price as a moving target has changed the game. The London market of 1968 had more in common with that of 1868 than today, yet it remains a unique centre of expertise.

The testimony is the continuing gold fixings, the LBMA with its Good Delivery List and annual global conference, while the Bank of England is the preferred depository for the gold of many nations. ■

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