

**Public consultation - Update for units of measurement directive**

**Subject :** Consultation on the Units of Measurement Directive (80/181/EEC)

Please see the attached letter together with a submission from the LBMA on the Use of the Troy Ounce in the Bullion Market.

Best regards

Stewart Murray  
Chief Executive  
London Bullion Market Association  
London, EC2V 5BQ

**Attachments :**



European Commission  
The Directorate – General for Enterprise and Industry  
Metrology Sector

By e-mail to: [entr-metrology@ec.europa.eu](mailto:entr-metrology@ec.europa.eu)

2<sup>nd</sup> March 2007

Dear Sirs

**Consultation on the Units of Measurement Directive (80/181/EEC)**

I have pleasure in sending herewith a response from the London Bullion Market Association to the European Commission's Consultation on the Units of Measurement Directive (80/181/EEC).

Yours faithfully

*(sent electronically)*

**Stewart Murray**  
**Chief Executive**

Enc. Submission to the EU Commission concerning use of the troy ounce

**Submission from the London Bullion Market Association**  
**on the European Commission's Consultation**  
**on the Units of Measurement Directive (80/181/EEC)**

This document is submitted by the London Bullion Market Association (“LBMA”) in response to the Commission’s consultation document of December 2006 concerning the Units of Measurement Directive (80/181/EEC).

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1<sup>st</sup> March, 2007

## **1. Executive Summary**

The London Bullion Market Association (“LBMA”) is the body which represents the wholesale market for gold and silver bullion focused on London (hereinafter referred to as “the London Bullion Market”). The London Bullion Market is the world’s dominant Over-the-Counter (ie, principal-to-principal) market for bullion products and derivatives. The LBMA’s broad-based membership includes banks and dealers; mining companies, refiners and fabricators; and suppliers of various services to the bullion market. In total, 20 countries are represented by the LBMA’s membership.

The LBMA considers that it is essential that the derogation, under which the use of the troy ounce is permitted for the weighing of gold silver and other precious metals, should either be continued for the foreseeable future or, preferably, replaced by a permanent legislative dispensation to allow the use of the troy ounce by the London Bullion Market in perpetuity.

It is no exaggeration to say that the market would be severely disrupted if it were forced to convert to metric units. Indeed, its future viability could be threatened by such a requirement. This relates to the enormous stocks of gold and silver bars in the London vaults which have been weighed in troy ounces using a method which means that these weighings could not be converted to metric units without all the bars being physically reweighed.

The use of the troy ounce in the London Bullion Market is in no way a barrier to trade within the EU, as its use is limited to the operations of the wholesale market in London. In this market, the trading infrastructure and IT systems of banks and dealers (regardless of their location) is geared to the use of the troy ounce. Other wholesale market participants in the EU and elsewhere, such as fabricators and refiners, are able to weigh their products in metric units. At the retail level, fabricated products containing precious metals (such as jewellery) are not in general sold by weight. The main exception is in the market for small investment bars and coins which are available in many different shapes and sizes, denominated in either troy ounces or grams. The global marketplace for these bars and coins includes many troy ounce denominated products – often produced in countries which use metric units in general.

The termination of the derogation allowing the use of the troy ounce would bring no benefit to the bullion traders, producers, consumers in the UK or the EU as a whole. The main beneficiaries of the market disruption that would result from such a change would be the major bullion trading centres which compete with London, namely those in Zurich, New York and Chicago.

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## **2. The LBMA and the Bullion Market**

The LBMA is the trade association representing the wholesale Bullion Market in London, the origins of which go back to around 1671, since which time the market has used the troy ounce as its unit of measurement.

The membership of the LBMA has become increasingly international in recent years. Prior to January, 2000, all Members had to be UK domiciled but today any suitably qualified company in any country may join the Association, either as a Full Member or an Associate. The latter category of membership does not include voting rights.

The London Bullion Market comprises the members of the LBMA and their trading activities with a worldwide customer base. The membership (see Annex 1) includes 107 companies comprising 9 Market Making Members, 54 ordinary Members plus 44 Associates. In total, these companies are located in 20 different countries. The majority of Members are investment banks, while the Associate category consists mainly of refiners. Six of the Market Making Members provide a clearing service for both paper gold and silver (based on unallocated accounts) and physical gold and silver in the form of allocated bullion. Other institutions, including the Bank of England and security transport companies also store physical gold and/or silver.

The London Bullion Market does not operate as a commodities exchange. Rather, it operates on an Over-the-Counter (“OTC”) or principal-to-principal basis which enables participants throughout the world to trade with members of the London market. The market supplies a wide range of physical and derivative products and most importantly these are provided on flexible terms which can be tailored to meet the individual business needs of each customer. The customers of the market include central banks, mining and refining companies, regional dealers and large investors (such as hedge funds). Their transactions can be in the form of book transfers of unallocated metal or physical bars complying with the “Good Delivery” specifications set down by the LBMA. It is important to realise that in spite of its name, the London Bullion Market is the global OTC market. This is illustrated most clearly by the LBMA’s Good Delivery List for gold and silver refiners (attached as Annex 2) which is the de facto world list of accredited refiners, and is recognised and used by markets and exchanges around the world as the basis for their own lists of acceptable refiners in their local markets.

Due to the fact the London Bullion Market is an OTC market, no comprehensive data is published as to the amount of metal which is traded in the London market. The only indication of trading volume is given by the statistics of clearing volumes published by the LBMA. In January 2007, the **daily** average quantities of gold and silver cleared through the London Bullion Market were 17.1 million and 98.8 million troy ounces respectively with the corresponding average daily values being US\$10.8 billion and US\$1.27 billion. The detailed figures are attached as Annex 3. Previous estimates of the daily volumes traded in the London market have suggested that the quantities are a positive multiple of the clearing volumes with a multiplier of between 5 and 9.

Very large stocks of bullion are held in the form of standard gold and silver bars on behalf of customers by the nine recognised custodians in the London market. All of these bars have been weighed in troy ounces as described below. Again, as with trading volume, there are no statistics on the amounts held. However, for gold alone, it amounts to many thousands of tonnes. The Bank of England alone reported that in 2006 it was holding approximately 3,000 tonnes of gold for its clients, which include central banks and Members of the LBMA.

The London Bullion Market is a truly international market, in that although dealers in other bullion trading centres may trade in their local markets and commodity exchanges, they also deal extensively in “loco London” bullion. This term means that the gold or silver will be settled in London either by way of book transfer or physically, but in either case the transactions are normally denominated in troy ounces.

All loco London transactions entitle the purchaser or holder of the gold or silver to physical delivery if they so require in which case the gold and silver tendered has to be produced by a refiner appearing on the LBMA’s Good Delivery List of acceptable refiners and the bars delivered have to comply with Good Delivery specifications laid down by the LBMA.

It is the transactions of these and other participants with members of the LBMA (whether based in London or in other countries) which have resulted in London becoming the global wholesale market for precious metals.

The other main bullion trading centres are the commodity exchanges located in New York and Chicago (which also use the troy ounce as their unit of measurement) and the OTC market in Zurich. There are a number of other commodity exchanges where trading is denominated in metric units. The most important of these is in Tokyo. Others include Shanghai, Istanbul, Sao Paulo, Dubai and India.

### **3. The Importance of the Troy Ounce**

This section describes the way that bars are weighed on arriving in London and explains why the recorded weights of existing bars cannot be simply converted to grams. It also describes the potential consequences of forcing the London Bullion Market to adopt metric units.

#### **Weighing Issues**

An important part of the reason for the difficulties that would result from forcing the London Bullion Market to convert to using metric units stems from the method of weighing gold and silver in the London Market. For the sake of brevity, we have concentrated here on gold but broadly similar criteria apply to silver, though these differ in detail. In the London Bullion Market, gold has always been weighed on beam balances. The smallest weights used to balance the bar are of 0.025 troy ounces and the registered weight of each bar will be expressed as a multiple of this weight. The balance also has a scale with divisions which represent 0.001 of a troy ounce. In order to ensure that the customer always gets “full measure” the practice in London is that the bar must weigh at least 0.002 of a troy ounce more than the weights on the balance pan. In other words, when a close balance has been achieved, the needle must settle on a point at least 2 divisions in favour of the bar. The recorded weight is then taken as the sum of the balance weights (i.e., a multiple of 0.025 a troy ounce). This means that (ignoring any errors in the balance weights or the set-up of the balance) the true weight of a bar can be anything from 0.002 to 0.027 of a troy ounce greater than the recorded weight.

EU weighing regulations for metric scales require them to have a Verification Interval of one gram which does not correlate with 0.025 of a troy ounce (being around 30% larger). As existing weight lists only show the final weight (i.e. rounded down to the nearest 0.025 troy ounces), without data to show what rounding has taken place, it would not be possible to merely mathematically convert the troy ounce weights to metric units. Every bar would need to be reweighed. There are many hundreds of thousands of gold bars stored in the London Market and reweighing this metal would take a considerable amount of time, a conservative estimate being at least two years, and disrupt the day-to-day working of the market, not to mention the considerable associated costs which would also undermine its competitiveness. New procedures for weighing gold and silver in metric units would also need to be established and approved, beam balances would need to be modified and new fully verified metric weights would be required. Currently beam balances are the only approved method of weighing gold in London as electronic scales are not considered to be sufficiently accurate to weigh to LBMA standards.

Having reweighed the gold, it would then be necessary to make adjustments between the numerous holders because although any one holder would have gains and losses on individual bars, overall they are likely to have a net gain or loss and those with a loss may seek to recoup such losses from the parties from whom they received the metal previously. Although the monetary amounts may appear insubstantial, the reconciliation process, which could take many months as some of the bars have been held in deep storage for well over fifty years, would represent a substantial disruption to the London market. Most importantly, this would do nothing to improve bullion trading in the EU but instead, given the dominant position of the London Bullion Market, would be detrimental to both the United Kingdom and the EU as a whole.

#### **Other Operational Issues**

All the London Bullion Market’s gold and silver accounting, price establishment, pricing models, price reporting systems and accounting systems are based on the troy ounce and although the time and

cost of changing these would impact on the competitiveness of the market, the biggest concern by far is the potential disruption to the London Bullion Market whilst the underlying IT programmes were amended and tested.

Most legal agreements and standard market documentation (eg, the documentation published by the International Swaps and Derivatives Association (“ISDA”) in New York) relating to the trading and storing of gold and silver are expressed in terms of the troy ounce. These would need to be rewritten, which would be a very time-consuming and expensive exercise.

Similarly, investment products such as Exchange Traded Funds, some of which have a life of up to thirty five years, are denominated in troy ounces for pricing, auditing and accounting. Approval to change to metric units would have to be sanctioned by the relevant Exchanges which could well not only disrupt the exchange trading in those products but the underlying physical gold and silver markets as the metal is held in allocated form giving rise to the various weighing issues already discussed above.

Most central banks and similar Monetary Authorities record their holdings of gold in troy ounces and the International Monetary Fund’s International Financial Statistics (see Annex 4) show the holdings of the official sector in troy ounces.

### **Potential Impact of a Change to Metric Units on the London Market**

As mentioned, the US gold and silver markets also use the troy ounce, the main markets being exchange based (COMEX in New York and the CBOT in Chicago). Although they do operate a physical market, this tends to be domestic. Therefore, if business were to be diverted from London it is probably more likely to migrate to Switzerland rather than the U.S.A.

The Swiss market, although much smaller than the London market, is a physical market. Previously when the London market was closed temporarily in 1968 following the collapse of the Gold Pool, a lot of business was diverted to Switzerland and it took many years to win that business back. Over the years, the Zurich market has suffered from a combination of bank mergers and transfers of key functions to the London market but there are currently clear signs that the Swiss market is eager to compete with London again. Moreover, the London market until recently had two Good Delivery gold refiners but these have now closed whereas Switzerland has five active gold refiners. Consequently if the London Market were to suffer disruption and / or became less competitive, there is a real possibility that the business would flow to Switzerland to the detriment of the UK’s (and the EU’s) financial market earnings.

## **4. Troy Ounce – No Barrier to Trading**

The use of the troy ounce in the London Bullion Market is in no way a barrier to trade within the EU as its use is limited to the operations of the wholesale market in London. In this market, the trading infrastructure and IT systems of banks and dealers (regardless of their location) is geared to the use of the troy ounce. Other wholesale market participants in the EU and elsewhere, such as fabricators and refiners, are able to weigh their products in metric units. At the retail level, fabricated products containing precious metals (such as jewellery) are not in general sold by weight. The main exception is in the market for small investment bars and coins which are available in many different shapes and sizes, denominated in either troy ounces or grams. The global marketplace for these bars and coins includes many troy ounce denominated products – often produced in countries which use metric units in general.

According to the LBMA’s Good Delivery Rules, gold and silver bars may optionally be stamped with their troy ounce or metric weight. In either case such bars will be accompanied by a weight list and when delivered in to the London Bullion Market the bars will be weighed in troy ounces and all subsequent transfers and accounting will be denominated in troy ounces. Dealers normally trade in US dollars per troy ounce but there is nothing to prevent them trading on another basis e.g., Yen per gram, but for gold and silver accounting purposes, all transactions will still be converted back to troy ounces.

If the London Bullion Market were to be prevented from using the troy ounce for weighing gold, silver and other precious metals, the London Bullion Market would be seriously disrupted. Given the very competitive nature of the bullion market it is very likely that this disruption would result in business being lost – not to other EU countries (as there is no alternative bullion market to London in the EU) but instead to Zurich and New York. Such a change would therefore do nothing to promote the EU internal market and would instead be detrimental not only to the United Kingdom but to the EU as a whole.

1<sup>st</sup> March, 2007

**Attachments:**

Annex 1 LBMA Membership List

Annex 2 LBMA Good Delivery List

Annex 3 LBMA Clearing Statistics for January, 2007

Annex 4 International Financial Statistics Gold Reserves Data



**Annex 1 - LBMA Membership List****The London Bullion Market Association****MEMBERSHIP LIST**

As at March 2007

**Market Making Members**

<b>Company</b>		<b>Telephone</b>	<b>Address</b>
The Bank of Nova Scotia – ScotiaMocatta	C GF SF	(0)20 7638 5644	Scotia House 33 Finsbury Square London EC2A 1BB
Barclays Bank Plc	C GF	(0)20 7773 8630	Barclays Capital 5 The North Colonnade Canary Wharf London E14 4BB
Deutsche Bank AG	C GF SF	(0)20 7545 8000	Winchester House 1 Great Winchester Street London EC2N 2DB
Goldman Sachs International		(0)20 7774 2010	Peterborough Court 133 Fleet Street London EC4A 2BB
HSBC Bank USA National Association, London Branch	C GF SF	(0)20 7991 8888	Level 4 8 Canada Square London E14 5HQ
JP Morgan Chase Bank	C	(0)20 7726 4681	125 London Wall London EC2Y 5AJ
Royal Bank of Canada Ltd		(0)20 7029 7490	Thames Court, 1 Queenhithe, London, EC4V 4DE
Société Générale	GF	(0)20 7676 8000	Exchange House Primrose Street London EC2A 2HT

<b>Company</b>		<b>Telephone</b>	<b>Address</b>
UBS AG	C	(0)20 7567 8000	100 Liverpool Street London EC2M 2RH

C	=	Member offering clearing services
GF	=	Member of London Gold Fix
SF	=	Member of London Silver Fix

**Notes:**

**Ordinary Members**

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
ABN-AMRO Bank NV, Australian Branch	+612 8259 5000	ABN AMRO Towers Cnr, Phillip & Bent Streets Sydney NSW Australia 2000
Amalgamated Metal Trading Limited	(0)20 7626 4521	55 Bishopsgate London EC2N 3AH
Ames Goldsmith UK Limited	(0) 151 547 6410	Knowsley Industrial Park Building 47 Acornfield Road Kirkby Liverpool L33 7UF.
Australia & New Zealand Banking Group Limited	(0)20 7378 2547	Minerva House Montague Close London SE1 9DH
Bache Commodities Limited	(0)20 7283-9166	9 Devonshire Square London EC2M 4HP
Baird & Co Limited	(0)20 8555-5217	137 High Street London E15 2RB
Bank of America, NA	+1 401 278 5789	Mail Stop: RI DE 03305C 111 Westminster Street Providence RI 02903-2305 United States of America
Bank of China	(0)20 7282 8888	90 Cannon Street London EC4N 6HA
Banque AIG, London Branch	(0)20 7659 7000	One Curzon Street London W1J 5RT
Bayerische Hypo-und-Vereinsbank AG	(0)20 7634 3701	Vintners' Place 68 Upper Thames Street London EC4V 3BJ
Bayerische Landesbank	+49 89 2171 25479	Brienner Strasse 18 80333 Munich Germany

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
Bear Stearns Forex Inc	+1 212 272 1030	383 Madison Avenue New York NY 10179
BNP Paribas	+1 212 841 3553	787 7 <sup>th</sup> Avenue 30 <sup>th</sup> Floor New York NY 10019 United States of America
Brink's Limited	(0)20 7247 9481	Arnold House 36/41 Holywell Lane London EC2P 2EQ
Calyon London Branch	(0)20 7214 5500	Broadwalk House 5 Appold Street London EC2A 2DA
Canadian Imperial Bank of Commerce	(0)20 7234 6000	Cottons Centre Cottons Lane London SE1 2QL
Citibank N A	(0)20 7986 3866	33 Canada Square Canary Wharf London E14 5LB
Commerzbank International SA Luxembourg	+352 47 79 11 2540	25 rue Edward Steichen L-2540 Luxembourg
Commonwealth Bank of Australia	+61 2 9378 2000	Level 4 120 Pitt Street Sydney NSW 2000 Australia
Cookson Precious Metals Limited	(0121) 200 2120	59-83 Victoria Street Birmingham B1 3NZ
Credit Suisse	+41 1 333 53 91	PO Box 300 Uetlibergstrasse 231 CH-8070 Zurich Switzerland
Derek Pobjoy International Limited	(01737) 818181	Millennia House Kingswood Park Tadworth Surrey KT20 6AY

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
Dresdner Bank AG, London Branch	(0)20 7444 9099	PO Box 18075 Riverbank House 2 Swan Lane London EC4R 3UX
EBS Dealing Resources International Limited	(0)20 7000 5000	2 Broadgate London EC2M 7UR
Engelhard Metals Limited	(0)20 7456-7300	63 St Mary Axe London EC3A 8NH
Fortis Bank SA./NV	(0)20 7444 8000	Montagne Du Parc 3 B-1000 Brussels Belgium
GFI Brokers Limited	(0)20 7422 1000	Broadgate West 1 Snowden Street London EC2A 2DQ
G4S International	(0)20 7776 1300	4 <sup>th</sup> Floor 1-3 College Hill London EC4R 2RA
ICAP Energy Ltd	(0)20 7000 5000	2 Broadgate London EC2M 7UR
Investec Bank (UK) Limited	(0)20 7597 4300	2 Gresham Street London EC2V 7QP
Johnson Matthey PLC	+44 (0) 1763 253 000	Precious Metals Marketing Orchard Road Royston Hertfordshire SG8 5HE
Koch Metals Trading Limited	(0)20 7648 6300	7 <sup>th</sup> Floor 2 George Yard Lombard Street London EC3V 9DH
Lehman Brothers International (Europe)	(0)20 7102 1000	25 Bank Street London E14 5LE
Macquarie Bank Ltd	(0)20 7065 2260	Level 29 City Point 1 Ropemaker Street London EC2Y 9HD

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
Man Financial Ltd	(0)20 7285 3000	Sugar Quay Lower Thames Street London EC3R 6DU
Marex Financial Limited	(0)20 7265 3992	155 Bishopsgate London EC2M 3XA
Marubeni Europe Plc	(0)20 7826-8600	120 Moorgate London EC2M 6SS
Merrill Lynch International	(0)20 7995 3785	Merrill Lynch Financial Centre 2 King Edward Street London EC1A 1HQ
Mitsubishi Corporation (UK) Plc	(0)20 7025 3200	Precious Metals Dept Mid City Place 71 High Holborn London WC1V 6BA
Mitsui & Co Precious Metals Inc, London Branch	(0)20 7489 6761	5 <sup>th</sup> Floor, St Martins Court 10 Paternoster Row London EC4M 7BB
Morgan Stanley & Co International Limited	(0)20 7513 8000	20 Cabot Square Canary Wharf London E14 4QA
Natexis Commodity Markets Ltd	(0)20 7220 5000	Capital House 85 King William Street London EC4N 7BL
Phibro Bullion, Division of Phibro Futures And Metals Limited	(0)20 7484 8774	6 Duke Street London SW1Y 6BN
Royal Bank of Scotland Plc	(0)20 7375 4000	135 Bishopsgate London EC2M 3UR
Royal Mint	(0)1443 222111	Llantrisant Pontyclun Mid Glamorgan CF72 8YT
Sempra Metals Limited	(0)20 7847 7618	111 Old Broad Street, London, EC2N 1SG
Standard Bank Plc	(0)20 7815 4130	Cannon Bridge House 25 Dowgate Hill London EC4R 2SB

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
Standard Chartered Bank	(0)20 7280 6990	22 Billiter Street 5th Floor London EC3M 2RY
Sucden (UK) Limited	(0)20 7940 9400	5 London Bridge Street London SE1 9SG
Sumitomo Corporation (Europe) PLC	(0)20 7246 3600	Vintners' Place 68 Upper Thames Street London EC4V 3BJ
Triland Metals Limited	(0)20 7061 5510	Mid City Place 71 High Holborn London WC1V 6BA
VIA MAT International Limited	(0)1932 230130	Unit 13 Shepperton Business Park PO Box 92 Govett Avenue Shepperton Middlesex TW17 8UQ
WestLB AG, London	(020) 7020 3116	25 Basinghall Street London EC2V 5HA
Westpac Banking Corporation	+61 2 9284 8607	Level 5, 255 Elizabeth Street Sydney NSW 2000 Australia

**Notes:**

1. Bache Financial changed name to Bache Commodities Limited on 8<sup>th</sup> January 2007.
2. EBS Change of address – 18<sup>th</sup> January 2007
3. Marex Financial Ltd became an Ordinary Member with effect from 1<sup>st</sup> February 2007.
4. Ames Goldsmith UK Ltd became an Ordinary Member with effect from 5<sup>th</sup> February 2007.

**Associates**

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
<b>AUSTRALIA</b>		
AGR Matthey	+61 89 479 9999	Horrie-Miller Drive Newburn WA 6104
Zinifex Metals Limited	+613 9288 0254	Freshwater Place Level 29 2 Southbank Boulevard Southbank Victoria 3006 Australia
<b>CANADA</b>		
Royal Canadian Mint	+1 613 993 7540	320 Sussex Drive Ottawa Ontario K1A 0G8
<b>CHINA</b>		
Great Wall Gold & Silver Refinery of China	+86 28 2725461	60 Xinjian Road Wenjiang 611130 Chengdu
<b>GERMANY</b>		
Baden-Württembergische Bank AG	+49 711 180 1257	PO Box 10 60 14 D-70049 Stuttgart
Umicore AG & Co KG	+49 6181 59 6292	Rodenbacher Chausee 4 PO Box 1351 D-63403 Hanau-Wolfgang
W C Heraeus Gmbh & Co KG	+49 6181 35 257	Heraeusstrasse 12-14 D-63450 Hanau
<b>INDIA</b>		
Jindal Dyechem Industries PVT Ltd	+91 11 2341 1800	110 Babar Road New Delhi – 110001 India
M. D. Overseas Ltd.	+91 11 5235 5235	53 Babar Road Bengali Market New Delhi – 110 001 India



<b>Company</b>	<b>Telephone</b>	<b>Address</b>
<b>JAPAN</b>		
Mitsubishi Materials Corporation	+81 3 5252 5370	Shin-Tokyo Building 3-3-1 Marunouchi Chiyoda-Ku Tokyo 100-8338
Sumitomo Metal Mining Co Ltd	+81 3 3436 7839	11-3 Shimbashi 5-Chome Minato-ku Tokyo 105-8716
Tanaka Kikinzoku Kogyo K. K.	+81 3 6311 5511	22nd Floor Tokyo Building 2-7-3 Marunouchi Chiyoda-ku Japan
<b>KAZAKHSTAN</b>		
OJSC Kazzinc	+7 3232 473 794	1 Promyshlennaya Str Ust-Kamenogorsk 492020
<b>KOREA</b>		
Korea Zinc Co. Ltd	+822 519 3447	142 Nonhyon-Dong Gangnam-Ku Seoul
<b>MEXICO</b>		
Met-Mex Peñoles S.A. de C.V.	+52 871 729 5704	Av. Metalúrgica No. 550 Col. Metalúrgica Torreón Coahuila 27370
<b>NETHERLANDS</b>		
Schöne Edelmetaal B.V.	+31 20 627 0026	Rokin 81-83 NL-1012 KL Amsterdam
<b>POLAND</b>		
KGHM Polska Mied• S.A.	+48 76 846-4646	UL. Marii Skłodowskiej-Curie 59-301 Lubin
<b>SOUTH AFRICA</b>		
AngloGold Ashanti Limited	+27 11 637 6287	11 Diagonal Street Marshalltown Johannesburg 2001

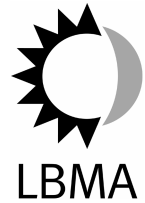
<b>Company</b>	<b>Telephone</b>	<b>Address</b>
Rand Refinery Limited	+27 11 418 9000	Industries West PO Box 565 Germiston, 1400
<b>SWITZERLAND</b>		
Argor-Heraeus SA	+41 91 640 53 53	Via Moree 14 CH-6850 Mendrisio
Cendres & Métaux SA	+41 32 344 22 11	Route de Boujean 122 CH-2501 Biel-Bienne
Finorafa SA	+41 91 695 5200	Via S. Sebastiano CH 6830 Chiasso
Metalor Technologies SA	+41 327 206 111	2 Avenue du Vignoble CH-2000 Neuchâtel
MKS Finance SA	+41 22 818 5200	10 Promenade St Antoine PO Box 3470 1211 Geneva 3
PAMP SA	+41 91 695 0450	Località Gorla 6874 Castel san Pietro Ticino
SGS	+41 022 739 9453	1 Place des Alpes PO Box 2152 Geneva 1 CH-1211
Valcambi SA	+41 91 695 53 11	Via Passeggiata CH-6828 Balerna
<b>TURKEY</b>		
Goldas AS	+90 212 637 4006	24 Kayalar Sokak Merter 34010 Istanbul
<b>UNITED ARAB EMIRATES</b>		
Bin Sabt Jewellery (LLC)	+9714 228 5500/ 224 6948	Post Box No. 844 Dubai

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
Emirates Gold DMCC	+9714 367 9030	Dubai Multi Commodities Centre 5 <sup>th</sup> Bridge, Sheikh Zayed Road PO Box 24305 Al Barsha Dubai
Kaloti Jewellery Group	+9714 225 4092	Dubai Gold Market Gold Centre Office # F37, 38, 39 PO Box 7913 Dubai
Lakhoo Jewellery Trading Co (LLC)	+9714 226 4885	PO Box 43190 Dubai
Peekay Intermark Limited	+9714 224 6948/ 228 5500	Building #158, 4 <sup>th</sup> floor, Flat #402. Opp Delhi Darbar Hotel, Deira Dubai PO Box 25022
Transguard	+ 9714 282 2255	PO Box 686 Dubai Cargo Village Dubai
<b>UNITED KINGDOM</b>		
Alex Stewart (Assayers) Ltd	+44 151 548 7777	Caddick Road Knowsley Business Park Knowsley Merseyside L34 9ER
Alfred H Knight International Limited	+44 1744 733757	Eccleston Grange Prescot Road St Helens Merseyside WA10 3BQ
Inspectorate International Ltd	+44 1376 515081	2 Perry Road Witham Essex CM8 3TU
GFMS Ltd	+44 20 7478 1777	Hedges House 153-155 Regent Street London W1B 4JE
JBR Recovery Ltd	+44 121 525 1691	Argentor House Oldbury Road West Bromwich West Midlands B70 9BS
TheBullionDesk	+44 20 7929 6339 +44 1799 516 956	12 Camomile Street London EC3A 7PT

<b>Company</b>	<b>Telephone</b>	<b>Address</b>
<b>UNITED STATES OF AMERICA</b>		
Gerald Metals Inc	+1 203 609 8421	Gerald Metals, Inc. 680 Washington Blvd P O Box 10134 Stamford, CT. 06904
Sovereign Bank	+1 401 752 1400	One Financial Plaza 3 <sup>rd</sup> Floor Providence RI 02903 USA
<b>UZBEKISTAN</b>		
Almalyk Mining - Metallurgical Complex	+998 71 120 20 60	53 Amir Temur Str. Amalyk 702400
Navoi Mining & Metallurgical Combinat	+998 79 223 11 03	27 Navoi Street Navoi 706800

**Notes:**

1. As of 1<sup>st</sup> January, Harmony Gold Mining Co. Ltd have resigned as an Associate.
2. Emirates Gold DMCC became an Associate Member as of 1<sup>st</sup> February 2007.
3. Gerald Metals change of address – 12<sup>th</sup> February 2007.

**Annex 2 - LBMA Good Delivery List**

The London Bullion Market Association

**The Good Delivery List Of Acceptable Refiners: Gold**

**As at 1st March, 2007**

The following is a list of Refiners of gold whose large bars were found to meet the required standard when originally tested.

Inclusion in this list does not constitute or imply any representation or warranty by the LBMA as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the LBMA.

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<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of First Listing</b>	<b>Most Recent Brand Mark</b>
<b>Australia</b>	AGR Matthey	Newburn, Western Australia	24.1.03	AGR MATTHEY in oval around three stacked bars
<b>Belgium</b>	Umicore SA, Business Unit Precious Metals	Hoboken	1930 (estimated)	umicore and company logo above the word HOBOKEN and 9999
<b>Brazil</b>	Umicore Brasil Ltda	Guarulhos, São Paulo	11.12.92	umicore and company logo above the word BRASIL
	AngloGold Ashanti Mineração Ltda	Nova Lima	21.3.86	AngloGold Ashanti
<b>Canada</b>	Johnson Matthey Limited	Brampton, Ontario	15.6.61	Johnson Matthey JM and crossed hammers in diamond, and JM Ltd Canada Assay Office in oval
	Falconbridge Limited	Montreal East, Quebec	1.1.55	Refined (year) Noranda Inc CCR Montreal East Canada

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of First Listing</b>	<b>Most Recent Brand Mark</b>
<b>Canada Cont...</b>	Royal Canadian Mint	Ottawa, Ontario	1919 (estimated)	ROYAL CANADIAN MINT and MONNAIE ROYALE CANADIENNE in maple leaf logo with four digit year mark
<b>China, People's Republic of</b>	The Great Wall Gold and Silver Refinery of China	Chengdu	1981	Refined by Great Wall Gold & Silver Refinery in oval around China, plus Great Wall logo and assay seal
	Inner Mongolia Qiankun Gold and Silver Refinery Share Company Limited	Huhhot, Inner Mongolia	27.10.99	Horse's head logo surrounded by QIANKUN GOLD AND SILVER in Roman and Chinese characters and assay mark with Chinese characters for Inner Mongolia, China in Chinese characters and CHINA in Roman characters
	Jiangxi Copper Company Limited	Guixi City, Jiangxi Province	30.08.05	Company Logo above JCC
	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	Sanmenxia City, Henan Province	28.03.06	Circular logo round Chinese character with CHN GOLD below.
	Zijin Mining Group Co. Ltd	Shanghang County, Fujian Province	28.03.06	Double crescent logo with ZIJIN MINING in Roman and Chinese characters.
<b>Germany</b>	W.C. Heraeus GmbH	Hanau, Hessen	15.7.58	Heraeus Hanau in rectangle
	Norddeutsche Affinerie Aktiengesellschaft	Hamburg	Before 1934/ 12.8.53	Norddeutsche Affinerie Hamburg in rectangle and NA
<b>Hong Kong</b>	Johnson Matthey Hong Kong	Kwai Chung	15.8.01	Johnson Matthey Hong Kong in oval round REFINERS MELTERS and Johnson Matthey Assay Office in oval round crossed hammers

Country	Company	Location of Refinery	Date of First Listing	Most Recent Brand Mark
<b>Hong Kong Cont ..</b>	Heraeus Ltd Hong Kong	Fanling	23.01.06	Heraeus Hong Kong in rectangle
<b>Indonesia</b>	PT Aneka Tambang (Persero) Tbk	Jakarta	1.1.99	LM logo and Logam Mulia Antam Jakarta in oval
<b>Italy</b>	Chimet SpA	Badia Al Pino, Arezzo	27.7.96	Chimet Trattamento Metalli Preziosi Badia Al Pino AR in oval
	Metalli Preziosi SpA	Paderno Dugnano, Milan	Before 1962	Metalli Preziosi S.p.A Milano Affinazione in oval round MP in diamond
<b>Japan</b>	Ishifuku Metal Industry Co., Ltd.	Soka, Saitama Pref.	30.6.82	Ishifuku Tokyo Melters and Ishifuku Tokyo Assay Office in circles round Japanese 'Bun' character
	Matsuda Sangyo Co., Ltd.	Iruma, Saitama Pref.	11.1.00	Matsuda Tokyo Assayer-Melter in oval with M
	Mitsubishi Materials Corporation	Kagawa, Kagawa Pref.	20.5.81	Three diamonds mark and three diamonds mark with Assayer Melter in rectangle
	Mitsui Mining and Smelting Co., Ltd.	Takehara Hiroshima Pref.	20.5.81	Logo consisting of three horizontal lines inside diamond inside circle
	Nippon Mining & Metals Co Ltd	Saganoseki Smelter and Refinery	3.5.00	Hollow circle above NSS with Nippon Mining at right
	Sumitomo Metal Mining Co., Ltd.	Saijo, Ehime Pref.	17.6.81	Sumitomo with logo and Sumitomo Assay Office with logo
	Tanaka Kikinzoku Kogyo K.K.	Hiratsuka, Kanagawa Pref	7.9.78	Tanaka Tokyo Melters round logo and Tanaka Tokyo Assay Office round logo
	Tokuriki Honten Co., Ltd.	Shobumachi, Saitama Pref	21.10.81	Tokuriki Tokyo Melters Assayers in circle round Japanese 'Toku' character

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of First Listing</b>	<b>Most Recent Brand Mark</b>
<b>Kazakhstan</b>	Kazzinc Joint Stock Company	Ust-Kamenogorsk	20.6.96	Stylised K and Kazakstan in Cyrillic script in oval with running stag  *The year of production is shown as a separate three digit number and the bar weight is in troy ounces and metric*
<b>Korea, Democratic People's Republic of</b>	Central Bank of the DPR of Korea	Pyongyang	22.04.76	Central Bank Pyongyang, Refiners, Melters, Central Bank DPR of Korea and assay mark
<b>Korea, Republic of</b>	Korea Zinc Co Ltd	Onsan	9.8.00	KOREA ZINC CO., LTD. 1974 in circle around KZ
	LS-Nikko Copper Inc	Ulsan		LS logo and LS Assayer Melter in rectangle
<b>Kyrgyz Republic</b>	Kyrgyzaltyn JSC	Karabalta	27.10.99; name & brand changed 1.5.01	KYRGYZ REPUBLIC in oval round ALTYN on crossed globe logo
<b>Mexico</b>	Met-Mex Peñoles, S.A.	Torreón, Coahuila	22.11.91	Met-Mex Peñoles SA DE CV in oval
<b>Netherlands</b>	Schöne Edelmetaal	Amsterdam	Before 1934	Umicore company logo with a separation line and the word Feingold
	Remondis Argentia B.V.	Moerdijk	13.11.06	A decagon enclosing ARGENTIA® and PRECIOUS METALS RECYCLING
<b>Philippines</b>	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	Quezon City	6.9.79	Central Bank of the Philippines Gold Refinery & Mint in oval round crucible pouring mould and similar assay mark
<b>Russia</b>	Joint Stock Company Ekaterinburg Non-Ferrous Metal Processing Plant	Ekaterinburg	11.1.99	Ekaterinburg logo, Cyrillic ED and Russia in Cyrillic script in oval



Country	Company	Location of Refinery	Date of First Listing	Most Recent Brand Mark
	Federal State Enterprise Novosibirsk Refinery	Novosibirsk	11.1.99	Novosibirsk logo, Cyrillic NV and Russia in Cyrillic script in oval
	The Open Joint Stock Company "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC "Krastvetmet")	Krasnoyarsk	29.11.99	Krasnoyarsk logo, Cyrillic KR and Russia in Cyrillic script in oval
	Open Joint Stock Company Kolyma Refinery	Khasyn, Magadan	17.09.04	Company logo and 'Russia' in Cyrillic in oval
	Prioksky Plant of Non-Ferrous Metals	Kasimov, Ryazan	29.11.99	Prioksky logo, Cyrillic PM and Russia in Cyrillic script in oval
	State-Owned Enterprise Shyolkovsky Factory of Secondary Precious Metals	Shyolkovo, Moscow	27.10.99	Shyolkovsky logo, Cyrillic SCH and Russia in Cyrillic script in oval
	JSC Uraelectromed	Verkhnyaya Pyshma	12.05.2006	Company logo in oval and "Russia" in Cyrillic in oval
<b>South Africa</b>	Rand Refinery Limited	Germiston, Gauteng	1921(estimated)	Rand Refinery Limited and Rand Refinery Ltd. South Africa in circle round head of springbok
<b>Spain</b>	SEMPSA Joyeria Plateria SA	Madrid	-1.84	Sociedad Española de Metales Preciosos SA in circle round Fundidores Afinadores and star
<b>Sweden</b>	Boliden Mineral AB	Skelleftehamn	-1.84	Boliden with logo
<b>Switzerland</b>	Argor-Heraeus SA	Mendrisio	28.8.61	Argor-Heraeus SA in circle round AH and AH Melter Assayer in rectangle

Country	Company	Location of Refinery	Date of First Listing	Most Recent Brand Mark
	Cendres & Métaux SA	Biel-Bienne	20.5.81	Cendres et Métaux SA. CH Bienne in circle round CM logo and CM Essayeur Fondateur in rectangle
	Metalor Technologies SA	Marin, Neuchâtel	Before 1934	METALOR® and assay mark showing Essayeur Fondateur with MP in triangle
	PAMP SA	Castel S Pietro, Ticino	10.6.87	PAMP SA Switzerland with PAMP logo and Essayeur Fondateur in rectangle with PAMP logo
	Valcambi SA	Balerna, Ticino	20.5.68	Valcambi SUISSE with assay mark (a rectangle enclosing CHI in a circle and ESSAYEUR FONDEUR)
<b>USA</b>	Johnson Matthey Inc	Salt Lake City Utah,	22.5.89	Johnson Matthey with JM and crossed hammers in diamond, and JMI Assay Office in oval round SLC
	Metalor USA Refining Corporation	North Attleboro, Mass	19.7.91	METALOR® and MUS assayer's mark including year
<b>Uzbekistan</b>	Almalyk Mining and Metallurgical Complex(AMMC)	Almalyk, Tashkent	28.10.97	Uzbekistan in Cyrillic and Roman script in circle round globe and AMMC logo with Melter Assayer in rectangle
	Navoi Mining and Metallurgical Combinat	Navoi	17.10.94	Uzbekistan, in Cyrillic and Roman script in circle round globe and NMMC logo with Melter Assayer in rectangle
<b>Zimbabwe</b>	Fidelity Printers and Refiners(Private) Limited	Harare	28.10.97	Fidelity Refiners in rectangle and bird logo in circle

#### Amendments since last quarter (31<sup>st</sup> December 2006)

- As of 1<sup>st</sup> January 2007, the Brand Mark has changed from 'ROYAL CANADIAN MINT and MONNAIE ROYALE CANADIENNE in maple leaf logo' to 'ROYAL CANADIAN MINT and MONNAIE ROYALE CANADIENNE in maple leaf logo with four digit year mark.'

### **Former Melters And Assayers Of Good Delivery Gold Bars**

The following are:

1. Organisations which no longer melt and assay good delivery gold bars, or which have undergone a change of name and/or mark or
2. Organisations which no longer melt and assay good delivery gold bars at the locations specified below but continue to do so elsewhere.

However, bars produced by these organisations prior to their transfer to this list continue to be acceptable as good delivery.

Bars in this category not marked with the fineness and stamp of an acceptable Assayer must be accompanied by a certificate issued by an acceptable Assayer stating the serial number of the bar and the fineness.

Following the historical precedent, if a bar bears more than one assay stamp, the lowest figure will be taken.

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Australia</b>	AGR Joint Venture	Kewdale, Western Australia	31.1.00	Australian Gold Refineries AGR Perth in lozenge with outline of swan on the left and three stacked bars on the right
	AGR Joint Venture	Newburn, Western Australia	31.12.02	Australian Gold Refineries AGR Perth in lozenge with outline of swan on the left and three stacked bars on the right
	Johnson Matthey (Aust.) Ltd.	Thomastown , Victoria	3.2.92	Johnson Matthey Melbourne in oval round. Refiners Melters and Johnson Matthey Assay Office in oval round crossed hammers
	Former Australian Branches of the Royal Mint, London	Perth, Western Australia, Melbourne, Victoria		Royal Mint Perth Branch and mint mark; Royal Mint Melbourne and mint mark
	Deak International			Deak International
	Engelhard Industries Pty Ltd	Thomastown , Victoria		Engelhard Australia and assay mark

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Australia Cont...</b>	Golden West Refining	Kewdale, Western Australia	1.2.93	Australia and Balance scales within map of Australia plus Golden West Refining in circle round three stacked bars
	Harringtons Metallurgists Limited	Ringwood, Victoria	22.8.95	Harringtons Metallurgists Australia Fine Assay Office mark
	Matthey Garrett Pty Limited	Sydney, NSW		Matthey Garrett Pty Limited Sydney Refiners
	The Perth Mint	Perth, WA		The Perth Mint and mint mark
	Western Australian Mint	Newburn Western Australia	1928	Australian Gold Refineries AGR Perth in lozenge
	Western Australian Mint trading as Australian Gold Refineries	Kalgoorlie	27.1.95	AGR Kalgoorlie
<b>Belgium</b>	SA Johnson Matthey NV	Brussels	-.11.95	Johnson Matthey Brussels and assay mark
	NV Métallurgie Hoboken- Overpelt SA			Métallurgie Hoboken-Overpelt and assay mark
	Umicore SA, Business Unit Precious Metals	Hoboken	1930 (estimated)	Hoboken 9999 and Hoboken 999.7
<b>Brazil</b>	Casa da Moeda do Brasil – CMB	Rio de Janeiro	30.06.04	Casa da Moeda do Brasil - CMB and mark
	Goldmine Fundidora Ltda		13.7.98	Goldmine in oval and assay mark
	CRM-Comercial e Refinadora de Metais S/A	Alphaville- Barueri	03.10.00	CRM in rectangle
	Banco Ourinvest SA	São Paulo	01.07.05	i in circle and Ourinvest, and i in circle and Ourinvest S.B.M. all in rectangle

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Brazil Cont ...</b>	Mineração AngloGold Ltda	Nova Lima	21.3.86	Morro Velho and MMV in rectangle
	Umicore Brasil Ltda	Guarulhos, São Paulo	11.12.92	Degussa Brasil with sun and moon in diamond logo
<b>Canada</b>	Engelhard Canada Ltd	Aurora, Ontario		Engelhard and trademark
	Johnson Matthey & Mallory Ltd			Johnson Matthey & Mallory Canada and assay mark
	Degussa Canada Ltd	Burlington, Ontario	-5.91	Degussa Canada Ltd
	Royal Canadian Mint	Ottawa, Ontario	01.01.07	ROYAL CANADIAN MINT and MONNAIE ROYALE CANADIENNE in maple leaf logo
<b>China, People's Republic of</b>	Gold and Silver Refinery of China		2.10.01	Star and circle, "Assayed by R.C."
	Neimenggu Precious Metal Refinery of China	Huhhot, Inner Mongolia	28.09.00	Horse's head logo circled by Neimenggu Precious Metal Refinery of China in Chinese and Roman script and assay mark of logo in circle with Chinese script
<b>Colombia</b>	Banco de la República	Medellin	1997	Banco de la República Colombia in rectangle with mountains
<b>France</b>	Caplain Saint-André Précieux			Caplain Saint-André Affineurs-Fondeurs
	Compagnie des Métaux Précieux	Ivry	1989	Compagnie des Métaux Paris Fondeurs Affineurs and assay mark
	Comptoir Lyon-Alemand Louyot			Comptoir Lyon-Alemand Louyot-Paris Affineur Fondeur and assay mark

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>France Cont ...</b>	Comptoir Lyon-Alemand et Marret, Bonnin, Lebel et Guieu réunis		1.10.95	Comptoir Lyon-Alemand et Marret Bonnin Lebel et Guieu réunis and assay mark
	Engelhard S.A.		1.10.95	Compagnie des Métaux Précieux Paris Fondeurs Affineurs and assay mark
	Engelhard-CLAL S.A.S.	Noisy le Sec	31.12.02	Engelhard-CLAL Paris and lion logo
	Les Anciens Etablissements Léon Martin			Anc Ets Léon Martin Fondeur Affineur Bagneaux Pres Paris and assay mark
	Marret, Bonnin, Lebel et Guieu (Melters only)			Marret, Bonnin, Lebel et Guieu and assay mark
<b>Germany</b>	Degussa-H•ls AG	Hanau-Wolfgang	1.11.00	Degussa with sun and moon in diamond logo
<b>Japan</b>	Nippon Mining & Metals Co., Ltd.	Hitachi	1.10.98	Nippon Mining, logo and HM
<b>Kazakhstan</b>	Kazzinc Joint Stock Company	Ust-Kamenogorsk	20.06.96	Stylised K and Kazakhstan in Cyrillic script in oval with running stag
<b>Korea, Democratic People's Republic of</b>	Central Bank of the DPR of Korea	Pyongyang	30.06.04	Central Bank Pyongyang, Refiners, Melters, Central Bank DPR of Korea and assay mark
<b>Korea, Republic of</b>	LG-Nikko Copper Inc	Ulsan	25/07/05	LG-Nikko with LG logo and Assayer Melter with LG logo
	LG Metals		1.12.99	LG in face shape inside circle
<b>Netherlands</b>	Engelhard-CLAL/Drijfhout BV	Amsterdam	30.06.04	H Drijfhout & Zoon Amsterdam Melters and assay mark
	Schöne Edelmetaal	Amsterdam	Before 1934	Degussa with sun and moon in diamond logo

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Romania</b>	Allied Deals Phoenix SA Baia Mare	Baia Mare, Maramures	16.5.02	Allied Deals Phoenix S.A. Baia Mare in circle with globe, eagle and ADG. Must be accompanied by assay mark of Banca Nationala a Romaniei
<b>Singapore</b>	Degussa (Private) Limited	Singapore	20.11.98	Degussa Singapore with sun and moon in diamond logo
<b>South Africa</b>	Musuku Beneficiation Systems Pty Limited	Virginia, Free State	01.01.07	Arrow Logo plus HARMONY
<b>Spain</b>	Industrias Reunidas Minero-Metalúrgicas, SA (Indumetal)		20.11.96	Indumetal and Orispania Bilbao
<b>Switzerland</b>	Argor SA		-9.86	Argor SA Chiasso and assay mark
	Bureau Central Suisse, Contrôle Métaux Précieux(Assayers only)			Bureau Central Suisse, Contrôle Métaux Précieux
	Métaux Précieux SA Metalor	Marin, Neuchatel	05.06.01	Métaux Précieux SA Metalor in circle round MP logo and MP assay mark
	Monnaie Fédérale Suisse			Monnaie Fédérale Suisse(Melters only)
	Société de Banque Suisse			Société de Banque Suisse Le Locle and assay mark
	Valcambi SA	Balerna, Ticino	16.10.06	VALCAMBI SA BALERNA-SUISSE with assay mark (a rectangle enclosing CHI in a circle and ESSAYEUR FONDEUR)
<b>United Kingdom</b>	Bank of England			Bank of England with Britannia seated holding spear
	Engelhard-CLAL UK Limited	Chessington, Surrey	1.10.98	Engelhard-CLAL London

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>United Kingdom Cont...</b>	Engelhard Limited		1.10.95	Engelhard London and 'E'
	Johnson & Sons, Assayers Ltd (Assayers only)			Assay Office stamp
	Johnson & Sons, Smelting Works Limited			Johnson & Sons Smelting Works Refiners Melters
	Johnson Matthey Plc	Royston, Herts	11.02 (replaced by new layout)	Johnson Matthey London in oval round Refiners Melters and Johnson Matthey Assay Office in oval round crossed hammers logo
	Johnson Matthey Plc	Royston, Herts	1919	Johnson Matthey London in oval round Refiners Melters and Johnson Matthey Assay Office in oval round crossed hammers logo
	N M Rothschild & Sons			N M Rothschild & Sons NMR
	Royal Mint			Coat of Arms of the Royal Mint
	The Sheffield Smelting Co Ltd London	Sheffield		Refined by the Sheffield Smelting Co Ltd London and Sheffield and assay mark
<b>USA</b>	ASARCO Incorporated	Baltimore, Md Perth Amboy, N.J		ASARCO Gold Baltimore Maryland or ASARCO Gold Perth Amboy New Jersey
	ASARCO Incorporated	Amarillo, Texas	22.06.05	ASARCO Gold Amarillo Texas in square
	Engelhard-CLAL USA	Cartaret, N.J.	10.12.97	Engelhard-CLAL New York
	Engelhard Corporation	Anaheim, Ca	31.12.00	Engelhard logo and W in octagon
	Engelhard Corporation	Cartaret, N.J.	10.12.97	Engelhard USA and 'E'



Country	Company	Location of Refinery	Date of Transfer to Former List	Brand Mark
USA Cont ...	Homestake Mining Company	Lead, SD	03.10.00	Homestake Mining Company in circle round HMC logo
	United States Metals Refining Company, Subsidiary of Amax Inc	Cartaret, N.J.		DRW Reg US Pat Off
	United States Assay Offices & Mints	New York, San Francisco, Denver	8.9.97	US Assay Office New York or Mint of The United States at San Francisco, or US Mint San Francisco, or US Mint Denver
USSR (formerly known as)	State Refineries	Moscow	1.1.97	Cyrillic SSSR with hammer and sickle

#### Amendments since last quarter (31<sup>st</sup> December 2006)

1. Following the closure of Musuku's refinery in 2006, the entry for Musuku Beneficiation Systems Pty Limited was transferred to the Former List

#### Former Assayers

The Association confines its listing to those organisations which have the capability both to melt and to assay Good Delivery bars.

The following organisations were accorded the status of 'Assayers only' on the relevant listing previously issued by the London Gold Market.

Daniel C Griffith & Co Ltd

Laboratoires Boudet & Dussaix

Chartered Industries of Singapore

The London Bullion Market Association

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**The Good Delivery List Of Acceptable Refiners: Silver**


**As at 1<sup>st</sup> March 2007**

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The following is a list of Refiners of silver whose large bars were found to meet the required standard when originally tested.

Inclusion in this list does not constitute or imply any representation or warranty by the LBMA as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the LBMA.

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<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of first Listing</b>	<b>Brand Mark</b>
<b>Australia</b>	AGR Matthey	Newburn, Western Australia	24.1.03	AGR MATTHEY in oval around three stacked bars
				
	Zinifex Limited	Port Pirie, South Australia		BHAS
<b>Belgium</b>	Umicore SA, Business Unit Precious Metals	Hoboken	1930 (estimated)	umicore and company logo above the word HOBOKEN and 9999
<b>Bulgaria</b>	KCM-S.A., Plovdiv	Plovdiv	8.9.99	KCM - SA Bulgaria and logo in diamond
<b>Canada</b>	Cominco Ltd	Trail, British Columbia		Tadanac
<b>Canada Cont...</b>	Johnson Matthey Limited	Brampton, Ontario, Canada	19.12.01	JM and crossed hammers in diamond surrounded by Johnson Matthey Canada
	Noranda Inc.CCR Refinery	Montreal East Quebec,		CCR Canada

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<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of first Listing</b>	<b>Brand Mark</b>
<b>China, People's Republic of</b>	Anhui Tongdu Copper Stock Company Ltd	Jinchang Smelter, Tongling City, Anhui	10.9.03	JINCHANG SMELTER. TONGDU COPPER. CHINA under "copper helmet" logo with TG underneath plus "copper helmet" assay mark
	Daye Nonferrous Metals Company	Hubei Province	05.02.07	DAJIANG in Roman and Chinese characters.
	Jiangxi Copper Company Ltd	Guixi City, Jiangxi	21.04.04	JCC under metal-loop logo
	The Great Wall Gold and Silver Refinery of China	Chengdu		Refined by Great Wall Gold & Silver Refinery in oval around China plus Great Wall logo and assay seal
	Henan Yuguang Gold and Lead Company Ltd	Jiyuan City, Henan Province	12.11.02	YG in diamond in centre between CHINA and assay mark
	Zhuzhou Smelter Group Co. Ltd	Zhuzhou, Hunan Province	1.1.99	ZY in diamond and CHINA (formerly known as Hunan Zhuzhou Non-Ferrous Metals Smelter Company).
	Inner Mongolia Qiankun Gold and Silver Refinery Share Company Limited	Huhhot, Inner Mongolia	6.6.00	Horse's head logo surrounded by QIANKUN GOLD AND SILVER in Roman and Chinese characters and assay mark with Chinese characters for Inner Mongolia, China in Chinese characters and CHINA in Roman characters
	Shenzhen Zhongjin Lingnan Nonfermet Company Limited	Shaoguan, Guandong Province	28.2.02	NH inside three peaks logo and NH ASSAYER in rectangle
<b>China, People's Republic of cont.</b>	Hunan Shuikoushan Nonferrous Metals Group Co., Ltd.	Changning City, Hunan Province	13.5.03	SKS CHINA (formerly known as Shui Kou Shan Mining Bureau of China).

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of first Listing</b>	<b>Brand Mark</b>
	Yunnan Copper Industry Co Ltd	Kunming	18.3.04	Rectangle containing TIE FENG under Chinese characters and TF in triangle; plus YCC under fineness mark
<b>Germany</b>	W.C.Heraeus GmbH	Hanau, Hessen		Heraeus Hanau in rectangle
	Norddeutsche Affinerie Aktiengesellschaft	Hamburg		Norddeutsche Affinerie Hamburg in oval and NA
<b>Italy</b>	Chimet SpA	Badia Al Pino, Arezzo	18. 5.81	Chimet Trattamento Metalli Preziosi Badia Al Pino AR in oval
	Metalli Preziosi SpA	Paderno Dugnano, Milan		Metalli Preziosi S.p.A. Milano Affinazione in oval round MP in diamond
<b>Japan</b>	Asahi Pretec Corp	Saijo, Ehime Pref	11.7.00	Diamond enclosing the letters AKK
	Dowa Mining Co., Ltd.	Kazuno, Akita Pref.		Circle enclosing two crossed hammers and Dowa character
	Ishifuku Metal Industry Co., Ltd	Soka Saitama Pref	1934	Ishifuku Tokyo in circle round Japanese 'Bun' character
	Japanese Mint	Osaka, Tokyo Hiroshima,		Japanese Mint Osaka or Tokyo or Hiroshima in Japanese and Roman script in oval round leaf symbol
	Matsuda Sangyo Co., Ltd.	Iruma, Saitama Pref.	11.1.00	Matsuda Tokyo Assayer-Melter in oval with M
	Mitsubishi Materials Corporation	Kagawa, Kagawa Pref.		Three diamonds mark
<b>Japan cont.</b>	Mitsui Mining and Smelting Co., Ltd	Takehara, Hiroshima		EMK with JIS assay mark and T before serial number
	Mitsui Mining and Smelting Co., Ltd	Kamioka, Gifu Pref.		EMK with JIS assay mark and K before serial number

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of first Listing</b>	<b>Brand Mark</b>
	Nippon Mining & Metals Co., Ltd.	Hitachi		Nippon Mining logo and HM
	Sumitomo Metal Mining Co., Ltd.	Saijo, Ehime Pref.		Sumitomo logo
	Tanaka Kikinzoku Kogyo K.K.	Hiratsuka, Kanagawa Pref.		Tanaka and logo
	Toho Zinc Co., Ltd.			TAK and logo
	Tokuriki Honten Co., Ltd.	Shobumachi, Saitama Pref.	-4.83	Tokuriki Tokyo Melters Assayers in circle round Japanese 'Toku' character
<b>Kazakhstan</b>	Kazzinc Joint Stock Company	Ust-Kamenogorsk	14.3.95	Stylised K and Kazakhstan in Cyrillic script in oval with running stag  *The year of production is shown as a separate four digit number and the bar weight is in troy ounces and metric*
<b>Korea, Republic of</b>	Korea Zinc Co Ltd	Onsan	31.1.01	KOREA ZINC CO., LTD. 1974 in circle around KZ
	LS-Nikko Copper Inc	Ulsan	19.4.91	LS logo and LS Assayer Melter in rectangle
<b>Mexico</b>	Met-Mex Peñoles SA	Torreon, Coahuila		Product of Peñoles Mexico in rectangle and Met-Mex Peñoles SA DE CV in oval
<b>Netherlands</b>	Argentia B.V	Moerdijk	10.11.06	A decagon enclosing ARGENTIA® and PRECIOUS METALS RECYCLING
	Schöne Edelmetaal B.V	Amsterdam	Before 1972	umicore company logo above the word FEINSILBER
<b>Peru</b>	Doe Run Peru SRL	La Oroya, Junin		CP Peru
<b>Poland</b>	KGHM Polska Miedz SA	Glogow	17.3.95	KGHM HG

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of first Listing</b>	<b>Brand Mark</b>
<b>Russia</b>	Joint Stock Company Ekaterinburg Non-Ferrous Metal Processing Plant	Ekaterinburg	28.4.99	Ekaterinburg logo, Cyrillic EB and Russia in Cyrillic script in oval
	Federal State Enterprise Novosibirsk Refinery	Novosibirsk	28.4.99	Novosibirsk logo, Cyrillic NN and Russia in Cyrillic script in oval
	The Open Joint Stock Company "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC "Krastvetmet")	Krasnoyarsk	2.6.99	Krasnoyarsk logo, Cyrillic KR and Russia in Cyrillic script in oval
	Prioksky Plant of Non-Ferrous Metals	Kasimov Ryazan,	24.6.99	Prioksky logo, Cyrillic PA and Russia in Cyrillic script in oval
	State-Owned Enterprise Shyolkovsky Factory of Secondary Precious Metals	Shyolkovo, Moscow	28.4.99	Shyolkovsky logo, Cyrillic SCH and Russia in Cyrillic script in oval
	Open Joint Stock Company Kolyma Refinery	Khasyn, Magadan	01.9.06	Company logo and 'Russia' in Cyrillic in oval
<b>South Africa</b>	Rand Refinery Limited	Germiston, Gauteng		Rand Refinery Limited and assay mark
<b>Spain</b>	SEMPSA Joyeria Plateria SA	Madrid		Sociedad Española de Metales Preciosos SA in circle round Fundidores Afinadores and star
<b>Sweden</b>	Boliden Commercial AB	Skelleftehamn		Boliden with logo
<b>Switzerland</b>	Argor-Heraeus SA	Mendrisio	24.6.92	Argor-Heraeus SA in circle round AH logo and Switzerland and Melter Assayer with AH logo in rectangle
	Metalor Technologies SA	Marin, Neuchâtel		METALOR® and assay mark showing Essayeur Fondeur with MP in triangle

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of first Listing</b>	<b>Brand Mark</b>
	PAMP SA	Castel S. Pietro, Ticino	1.10.95	PAMP logo and Switzerland, and Essayeur Fondateur in rectangle with PAMP logo
	Valcambi SA	Balerna, Ticino		Valcambi SUISSE with assay mark (a rectangle enclosing CHI in a circle and ESSAYEUR FONDEUR)
<b>United Kingdom</b>	Britannia Refined Metals Ltd	Gravesend, Kent	1931	999 with BICO in shield
	JBR Recovery Limited	West Bromwich	1992	JBR Recovery Ltd in oval round 999
	Thessco Limited	Sheffield	1.7.95	Thessco with 999 or 9999 in octagon
<b>USA</b>	Johnson Matthey Inc.	Salt Lake City, Utah	3.3.89	Johnson Matthey with JM and crossed hammers in diamond and JMI Assay Office in oval round SLC
	Kennecott Utah Copper Corporation	Magma, Utah		KUC
	Metalor USA Refining Corporation	North Attleboro, Mass	18.2.91	METALOR® and MUS assayer's mark including year
<b>Uzbekistan</b>	Almalyk Mining and Metallurgical Complex(AMCC)	Almalyk, Tashkent	23.10.96	Uzbekistan in Cyrillic and Roman script in circle round globe and AMMC logo with Melter Assayer in rectangle

#### **Amendments since last quarter (31<sup>st</sup> December 2006)**

1. The LBMA has approved the addition of Daye Nonferrous Metals Company as of 5<sup>th</sup> February 2007.
2. Boliden Mineral AB changed its name to Boliden Commercial AB.

### **Former Melters And Assayers Of Good Delivery Silver Bars**

1. Organisations which no longer melt and assay good delivery silver bars, or which have undergone a change of name and/or mark or
2. Organisations which no longer melt and assay good delivery silver bars at the locations specified below but continue to do so elsewhere.

However, bars produced by these organisations prior to their transfer to this list continue to be acceptable as good delivery.

Bars in this category not marked with the fineness and stamp of an acceptable Assayer must be accompanied by a certificate issued by an acceptable Assayer stating the serial number of the bar and the fineness.

Following the historical precedent, if a bar bears more than one assay stamp, the lowest figure will be taken.

The following organisations no longer melt and assay good delivery silver bars. However, bars produced by them prior to their transfer to this continue to be acceptable as good delivery. The Association reserves the right to de-list bars after an appropriate period of time where production has ceased.

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Australia</b>	AGR Joint Venture	Newburn, Western Australia	24.01.03	Australian Gold Refineries AGR Perth in lozenge with outline of swan on the left and three stacked bars on the right
	Engelhard Industries Pty Limited			Engelhard Australia and assay mark
	Johnson Matthey Limited			Johnson Matthey Refiners Australia Sydney
	Pasminco Metals Pty Ltd (formerly The Broken Hill Associated Smelters Pty Ltd)	Port Pirie, South Australia	18.01.05	BHAS
	Southern Copper Limited, formerly The Electrolytic Refining & Smelting Company of Australia Ltd		14.8.96	ERANDS
	The Perth Mint	Perth		PM
<b>Australia Cont ...</b>	Western Australian Mint	Newburn Western Australia	1928	AGR Perth



<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Austria</b>	Ögussa GmbH	Vienna	05.07.04	Ögussa in sun and moon logo in diamond
<b>Belgium</b>	SA Johnson Matthey NV	Brussels	-11.95	Johnson Matthey – Brussels
	Umicore SA Business Unit Precious Metals	Hoboken	31.03.06	Hoboken 999+
<b>Canada</b>	Engelhard Canada Limited	Aurora, Ontario	12.12.95	Engelhard
<b>Canada Cont</b>	INCO Limited, Copper Cliff Copper Refinery	Copper Cliff, Ontario	29.01.04	ORC
	Royal Canadian Mint	Ottawa, Ontario	29.7.98	Royal Canadian Mint and Monnaie Royale Canadienne
<b>China</b>	Neimenggu Precious Metal Refinery of China	Huhhot Inner Mongolia	28.9.04	Horse's head logo circled by Neimenggu Precious Metal Refinery of China in Chinese and Roman script and assay mark of logo in circle with Chinese script
<b>France</b>	Engelhard S.A.	Ivry		Compagnie des Métaux Précieux Paris Fondateurs Affineurs and assay mark
	Engelhard-CLAL S.A.S.	Noisy le Sec	31.12.02	Engelhard-CLAL Paris and lion logo
	Comptoir Lyon-Alemand Louyot			Comptoir Lyon-Alemand Louyot Paris Affineurs Fondateurs and assay mark
<b>Germany</b>	Allgemeine Gold- und Silberscheideanstalt Aktiengesellschaft	Pforzheim	29.11.04	Allgemeine and logo
	Degussa-H•ls AG	Hanau-Wolfgang	1.11.00	Degussa with sun and moon in diamond logo
<b>Germany Cont ...</b>	VEB Mansfeld Kombinat Wilhelm Pieck		21.10.96	Mansfeld

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Italy</b>	Mariovilla SpA	Milan	21.3.97	Mario Villa Milano
	Portovesme Srl	Cagliari, Sardinia	30.06.04	PORTOVESME S.r.l. - SAN GAVINO in circle
<b>Japan</b>	Furukawa Metals Company Limited	Nikko	16.9.96	Triangle(like A)
<b>Kazakhstan</b>	Kazzinc Joint Stock Company	Ust-Kamenogorsk	14.3.95	Stylised K and Kazakhstan in Cyrillic script in oval with running stag
<b>Korea, Democratic People's Republic of</b>	State Refinery, Pyongyang	Pyongyang	30.06.04	Korea Pyongyang Refinery in circle round Melter Assayer and Central Bank Pyongyang Assay Office in circle round scales
<b>Korea, Republic of</b>	LG-Nikko Copper Inc.	Ulsan	25/07/05	LG-Nikko in circle round logo and K in circle
	Korea Zinc Co Ltd	Onsan	10.05.02	KZ in diamond
<b>Mexico</b>	Compania de Real del Monte y Pachuca S.A. de C.V.	Pachuca, Hidalgo	30.06.04	RM
<b>Mexico Cont</b>	Industrial Minera Mexico SA	Monterrey, NL	1.11.00	IMM Monterrey and mark
<b>Myanmar (formerly Burma)</b>	Myanmar Bawdwin Corporation	Namtu	16.4.97	Burma Mines
<b>Netherlands</b>	Engelhard-CLAL/Drijfhout BV	Amsterdam	15.06.04	Drijfhout & Zoon Amsterdam Melters and mark
	Schöne Edelmetaal	Amsterdam	Before 1972	Degussa with sun and moon in diamond logo
<b>Norway</b>	KA Rasmussen Hamar A/S		21.10.96	KAR

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>Philippines</b>	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	Quezon City	31.12.92	Central Bank of the Philippines Gold Refinery & Mint in oval round crucible pouring mould
<b>Poland</b>	Zaklady Metalurgiczne Trzebinia		11.11.97	ZTM
<b>Romania</b>	Allied Deals Phoenix SA, Baia Mare	Baia Mare, Maramures	16.5.02	Allied Deals Phoenix S.A. Baia Mare in circle with globe, eagle and ADG. Must be accompanied by assay mark of Banca Nationala a Romaniei
<b>Spain</b>	Industrias Reunidas Minero-Metalúrgicas SA(Indumetal)		21.11.96	Orispania Bilbao
	Sociedad Minera y Metalurgica de Peñarroya-España SA		12.5.97	Peñarroya
<b>Switzerland</b>	Métaux Précieux SA Metalor Valcambi SA	Marin, Neuchatel Balerna, Ticino	23.10.01	Métaux Précieux SA Metalor Metalor MP and separate assay mark MP VALCAMBI SA BALERNA-SUISSE with assay mark (a rectangle enclosing CHI in a circle and ESSAYEUR FONDEUR)
<b>Thailand</b>	Greatest Gold & Refinery Co. Ltd	Bangkok	14.12.05	A Stylised "G" adjacent to Greatest Gold
<b>United Kingdom</b>	John Betts Refiners Ltd			John Betts Refiners Ltd 999
	W Canning Refiners Limited			W Canning Refiners Ltd 999
	Capper Pass & Son Limited			Melton Silver

<b>Country</b>	<b>Company</b>	<b>Location of Refinery</b>	<b>Date of Transfer to Former List</b>	<b>Brand Mark</b>
<b>United Kingdom Cont ...</b>	Johnson Matthey Plc	Royston, Herts	11.02 (replaced by new layout)	Johnson Matthey London in oval round Refiners Melters and 999
	Johnson Matthey Plc	Royston, Herts	1919	Johnson Matthey London in oval round Refiners Melters and 999
	Engelhard-CLAL UK Ltd	Chessington, Surrey	1.10.98	Engelhard-CLAL London
	Engelhard Limited	Chessington, Surrey		Engelhard London
	The Sheffield Smelting Company Limited	Sheffield		The Sheffield Smelting Co Ltd
<b>USA</b>	Amax Incorporated			DRW
	ASARCO Incorporated	Amarillo, Texas	22.06.05	ASARCO Silver Amarillo Texas in square
	Engelhard-CLAL USA	Carteret, N.J.	10.12.97	Engelhard-CLAL New York
	Engelhard Corporation	Carteret, N.J.		E
	Handy & Harman Refining Group Inc	Attleboro, Mass	3.4.01	Handy & Harman Refining Group Silver with HH in square
	US Assay Office, New York	New York, N.Y.	8.9.97	US Assay Office and Date
<b>USSR(formerly known as)</b>	State Refineries		1.1.97	CCCP with hammer and sickle
<b>Yugoslavia (formerly known as)</b>	Trepca		11.11.97	Ag Trepca

### **Annex 3 Clearing Statistics for January 2007**

#### **PRESS NOTICE**

**EMBARGO: 12:00pm on Friday 16 February 2007**

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#### Clearing Turnover Statistics: January 2007

Gold and silver clearing statistics were mostly lower in January, with the only measure to show an increase being the number of transfers in gold.

**Gold ounces transferred** fell 14.1% to a daily average of 17.1 million. Based on an average fixing of \$631.17 – \$1.50 higher than in December – **value** dropped to a daily average of \$10.8 billion. The **number of transfers** increased 5.4% to a daily average of 1, 369.

Measured year on year, gold statistics were mixed. Ounces transferred fell 2.8%, value was 11.3% higher and the number of transfers increased 32.1%.

**Ounces transferred in silver** fell 8.3% to a daily average of 98.8 million. Based on an average fixing of \$12.84 – 52 cents lower than in December – **value** fell to a daily average of \$1.27 billion. The **number of transfers** fell 7.9% to a daily average of 374.

Measured year on year, silver statistics were mostly lower as well. Ounces transferred fell 20.6% and the number of transfers was 8.8% lower, while value rose 11.4%, thanks to the sharply higher price year on year.

Gold began the New Year under selling pressure. After opening at the \$640 level, the market fell sharply over the first week, pressured by a strengthening US dollar as well as sell-offs in crude oil and copper. The market reached the month-low fixing of \$608.30 on the morning of the 8<sup>th</sup>. After trading either side of \$610 for a few days, gold climbed \$20. Resistance around the \$630 level proved short-lived, and the market continued to rally to reach the month-high fixing of \$651.75 on the afternoon of the 25<sup>th</sup>. It remained steady for the balance of the month and closed with a final fixing of \$650.50.

Silver followed gold's lead over the course of the month for its price direction. After opening at the \$13.00 level, it plunged 80 cents to the month-low fixing of \$12.21 on the 8<sup>th</sup>. It gradually recovered to approach \$13.00 again in the middle of the month, breaking above that level to reach the month-high fixing of \$13.38 along with gold on the 25<sup>th</sup>. It remained steady and closed with a final fixing of \$13.36.

#### Notes

The figures contain:

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

Excluded from the statistics are:

- Allocated and unallocated balance transfers where the sole purpose is for overnight credit
- Physical movements arranged by clearing members in locations other than London.

For further information, contact Susanne Capano, Public Relations Manager

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## London Bullion Market Clearing Turnover

(Daily Averages)

### **GOLD**

### **SILVER**

#### Ounces Transferred (millions)

	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
January	18.7	14.1	14.8	17.6	17.1	89.7	143.4	76.9	124.5	98.8
February	19.0	15.4	13.9	19.7		107.5	121.5	77.5	152.9	
March	16.8	15.6	16.0	20.6		90.0	128.7	93.8	187.9	
April	15.4	17.0	14.3	26.1		79.2	133.8	87.6	238.1	
May	15.9	14.5	16.8	24.5		78.9	94.7	152.1	205.7	
June	15.8	13.8	19.1	25.8		61.3	95.1	123.4	164.3	
July	13.6	15.1	14.6	23.2		108.3	93.6	95.1	169.5	
August	14.3	13.8	15.2	19.5		97.8	82.5	104.4	94.7	
September	16.5	12.4	17.5	20.5		96.2	82.3	126.8	110.4	
October	14.1	14.7	18.4	21.6		101.3	92.0	124.7	98.6	
November	13.7	16.6	17.4	19.3		89.6	75.5	132.0	108.8	
December	14.3	15.4	20.0	19.9		110.1	102.2	131.3	107.7	

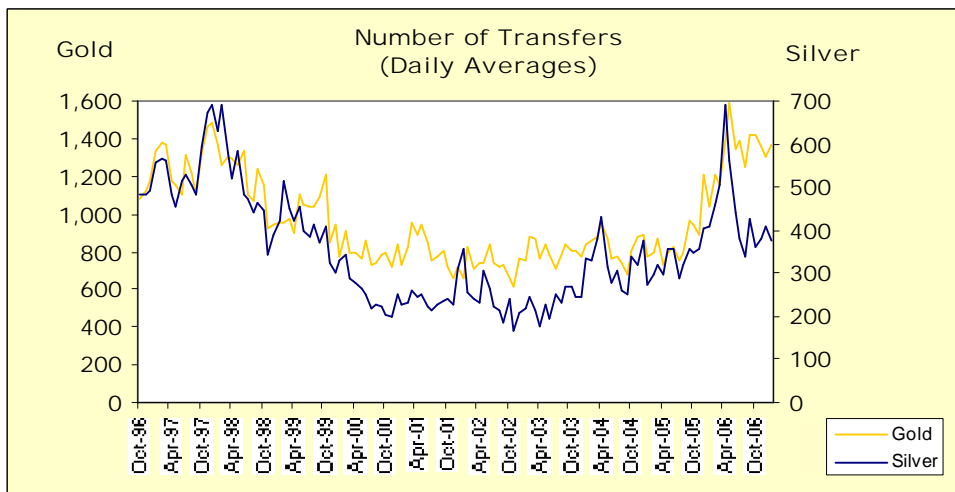
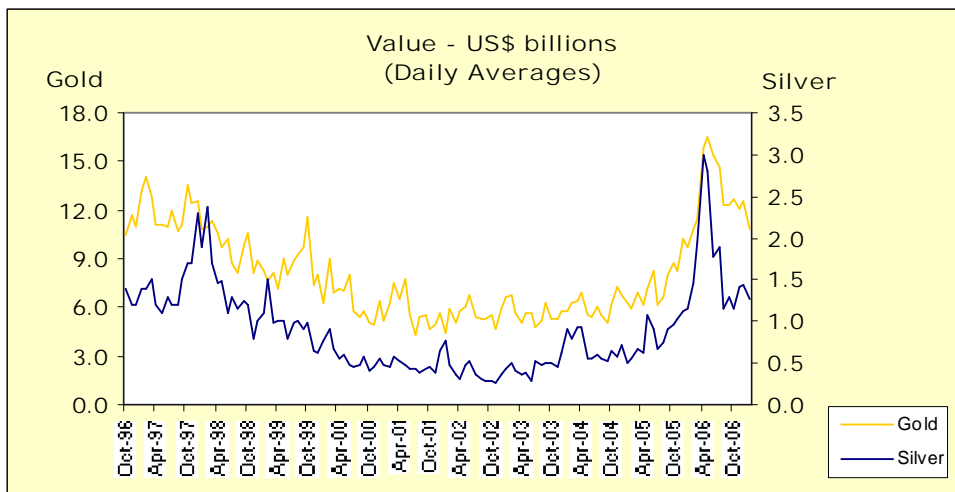
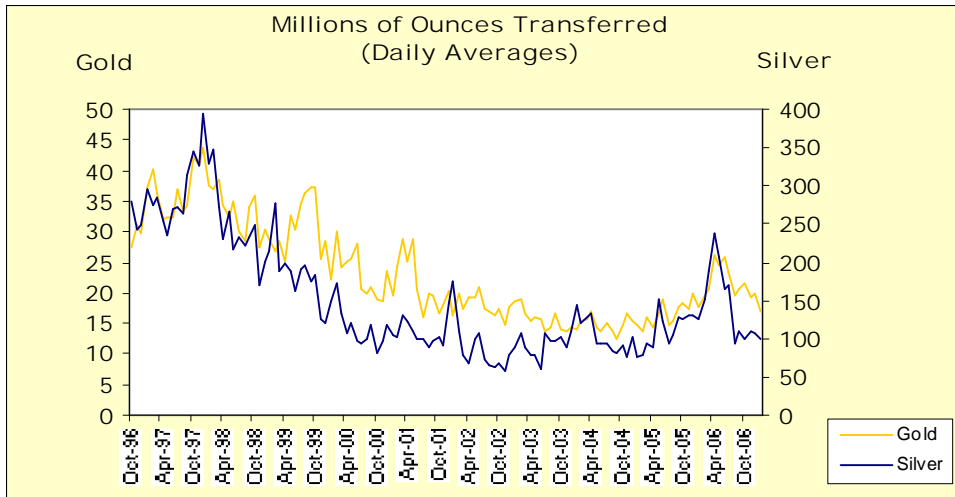
#### Value\* (US\$ billions)

	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
January	6.7	5.8	6.3	9.7	10.8	0.43	0.91	0.51	1.14	1.27
February	6.8	6.2	5.9	10.9		0.50	0.78	0.54	1.46	
March	5.7	6.4	6.9	11.5		0.41	0.93	0.68	1.95	
April	5.1	6.9	6.1	15.9		0.36	0.94	0.62	3.00	
May	5.7	5.6	7.1	16.5		0.37	0.55	1.07	2.80	
June	5.6	5.4	8.2	15.4		0.28	0.56	0.90	1.77	
July	4.8	6.0	6.2	14.7		0.52	0.59	0.67	1.90	
August	5.1	5.5	6.7	12.3		0.49	0.55	0.74	1.15	
September	6.3	5.0	8.0	12.3		0.50	0.53	0.91	1.29	
October	5.3	6.2	8.7	12.7		0.51	0.65	0.96	1.14	
November	5.3	7.3	8.3	12.1		0.46	0.57	1.04	1.41	
December	5.8	6.8	10.2	12.6		0.62	0.73	1.13	1.44	

#### Number of transfers

	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
January	755	839	775	1036	1369	216	332	272	410	374
February	883	863	800	1210		247	329	299	457	
March	866	884	869	1156		215	380	321	506	
April	764	950	736	1388		178	431	299	693	
May	837	872	799	1588		228	317	357	561	
June	788	768	828	1345		193	280	355	442	
July	711	775	748	1391		251	305	289	380	
August	783	740	795	1246		233	259	318	337	
September	838	674	965	1424		267	252	356	427	
October	804	808	947	1415		268	337	349	361	
November	809	881	889	1358		248	319	359	381	
December	776	886	1206	1299		246	375	403	406	

\*Using the monthly average London p.m. fixing price for gold and the monthly average London silver fixing price.



## Annex 4 International Financial Statistics Gold Reserves Data

## Gold (Million Fine Troy Ounces)

1ad	2006												
	2002	2003	2004	2005	I	II	III	IV	Sep	Oct	Nov	Dec	
	<i>Millions of Ounces: End of Period</i>												
<b>All Countries.....</b>	<b>010</b>	<b>931.50</b>	<b>913.90</b>	<b>896.96</b>	<b>878.15</b>	<b>875.78</b>	<b>872.49</b>	<b>869.56</b>	.....	<b>869.56</b>	<b>869.24</b>	<b>868.15</b>	.....
<b>Industrial Countries.....</b>	<b>110</b>	<b>769.85</b>	<b>754.29</b>	<b>740.60</b>	<b>723.78</b>	<b>721.49</b>	<b>718.38</b>	<b>715.55</b>	.....	<b>715.55</b>	<b>715.01</b>	<b>713.78</b>	.....
United States.....	111	262.00	261.55	261.59	261.55	261.55	261.50	261.50	261.50	261.50	261.50	261.50	261.50
Canada.....	156	.60	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11
Australia.....	193	2.56	2.56	2.56	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57
Japan.....	158	24.60	24.60	24.60	24.60	24.60	24.60	24.60	24.60	24.60	24.60	24.60	24.60
New Zealand.....	196	—	—	—	—	—	—	—	—	—	—	—	—
<b>Euro Area (incl. ECB).....</b>	<b>163</b>	<b>399.02</b>	<b>393.54</b>	<b>390.00</b>	<b>375.86</b>	<b>373.69</b>	<b>370.69</b>	<b>367.96</b>	<b>365.21</b>	<b>367.96</b>	<b>367.43</b>	<b>366.23</b>	<b>365.21</b>
Austria.....	122	10.21	10.21	9.89	9.73	9.55	9.41	9.28	9.28	9.28	9.28	9.28	9.28
Belgium.....	124	8.29	8.29	8.29	7.32	7.32	7.32	7.32	7.32	7.32	7.32	7.32	7.32
Finland.....	172	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
France.....	132	97.25	97.25	95.98	90.85	90.09	89.25	88.66	87.44	88.66	88.35	87.67	87.44
Germany.....	134	110.79	110.58	110.38	110.21	110.21	110.07	110.04	110.04	110.04	110.04	110.04	110.04
Greece.....	174	3.94	3.45	3.46	3.47	3.47	3.47	3.48	3.59	3.48	3.48	3.48	3.59
Ireland.....	178	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18	.18
Italy.....	136	78.83	78.83	78.83	78.83	78.83	78.83	78.83	78.83	78.83	78.83	78.83	78.83
Luxembourg.....	137	.08	.08	.07	.07	.07	.07	.08	.07	.08	.08	.07	.07
Netherlands.....	138	27.38	25.00	25.00	22.34	21.11	21.06	21.06	20.61	21.06	21.03	20.77	20.61
Portugal.....	182	19.03	16.63	14.86	13.42	13.42	13.42	12.30	12.30	12.30	12.30	12.30	12.30
Spain.....	184	16.83	16.83	16.83	14.72	14.72	14.72	13.86	13.40	13.86	13.66	13.40	13.40
Denmark.....	128	2.14	2.14	2.14	2.14	2.14	2.14	2.14	.....	2.14	2.14	2.14	.....
Iceland.....	176	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
Norway.....	142	1.18	1.18	—	—	—	—	—	—	—	—	—	—
San Marino.....	135	—	—	—	—	—	—	.....	.....	.....	.....	.....	.....
Sweden.....	144	5.96	5.96	5.96	5.41	5.31	5.25	5.16	5.10	5.16	5.15	5.12	5.10
Switzerland.....	146	61.62	52.51	43.54	41.48	41.48	41.48	41.48	41.48	41.48	41.48	41.48	41.48
United Kingdom.....	112	10.09	10.07	10.04	9.99	9.98	9.98	9.98	9.97	9.98	9.98	9.97	9.97
<b>Developing Countries.....</b>	<b>200</b>	<b>161.66</b>	<b>159.61</b>	<b>156.36</b>	<b>154.37</b>	<b>154.30</b>	<b>154.11</b>	<b>154.01</b>	.....	<b>154.01</b>	<b>154.23</b>	<b>154.37</b>	.....
<b>Africa.....</b>	<b>605</b>	<b>15.34</b>	<b>13.45</b>	<b>13.24</b>	<b>13.27</b>	<b>13.25</b>	<b>13.23</b>	<b>13.27</b>	.....	<b>13.27</b>	<b>13.27</b>	<b>13.27</b>	.....
CEMAC (Incl. BEAC hqtrs.).....	758	.23	.23	.23	.23	.23	.23	.23	.23	.23	.23	.23	.23
Cameroon.....	622	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
Central African Republic.....	626	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Chad.....	628	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Congo, Rep. of.....	634	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
Equatorial Guinea.....	642	—	—	—	—	—	—	—	—	—	—	—	—
Gabon.....	646	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
WAEMU (Incl. BCEAO hqtrs.).....	759	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
Benin.....	638	—	—	—	—	—	—	—	—	—	—	—	—
Burkina Faso.....	748	—	—	—	—	—	—	—	—	—	—	—	—
Côte d'Ivoire.....	662	—	—	—	—	—	—	—	—	—	—	—	—
Guinea Bissau.....	654	—	—	—	—	—	—	—	—	—	—	—	—
Mali.....	678	—	—	—	—	—	—	—	—	—	—	—	—
Niger.....	692	—	—	—	—	—	—	—	—	—	—	—	—
Senegal.....	722	—	—	—	—	—	—	—	—	—	—	—	—
Togo.....	742	—	—	—	—	—	—	—	—	—	—	—	—
Algeria.....	612	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58
Burundi.....	618	—	—	—	—	—	—	—	—	—	—	—	—
Cape Verde.....	624	—	—	—	—	—	—	—	.....	—	—	—	—
Comoros.....	632	—	—	—	—	—	—	—	—	—	—	—	—
Eritrea.....	643	—	—	—	—	—	—	—	—	—	—	—	—
Ethiopia.....	644	.25	—	—	—	—	—	—	—	—	—	—	—
Ghana.....	652	.28	.28	.28	.28	.28	.28	.28	.....	.28	.28	.....	.....
Guinea.....	656	.27	.....	.01	—	—	—	.01	.....	.01	.....	.....	.....
Kenya.....	664	—	—	—	—	—	—	—	—	—	—	—	—
Malawi.....	676	.01	.01	.01	.01	.01	.01	.01	.....	.01	.01	.01	.....
Mauritania.....	682	.01	.01	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mauritius.....	684	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
Morocco.....	686	.71	.71	.71	.71	.71	.71	.71	.....	.71	.71	.71	.....
Mozambique.....	688	.06	.02	.06	.10	.08	.06	.10	.....	.10	.10	.10	.....
Namibia.....	728	—	—	—	—	—	—	—	.....	—	—	—	.....
Nigeria.....	694	.69	.69	.69	.69	.69	.69	.69	.....	.69	.69	.69	.....
Rwanda.....	714	—	—	—	—	—	—	—	.....	—	—	—	.....
South Africa.....	199	5.58	3.98	3.98	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
Tunisia.....	744	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22
Zambia.....	754	—	—	—	—	—	—	—	—	—	—	—	—
Zimbabwe.....	698	.14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Asia.....</b>	<b>505</b>	<b>65.50</b>	<b>65.03</b>	<b>64.04</b>	<b>61.87</b>	<b>61.77</b>	<b>61.93</b>	<b>61.71</b>	.....	<b>61.71</b>	<b>61.78</b>	<b>61.72</b>	.....
Bangladesh.....	513	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11
Brunei Darussalam.....	516	—	—	—	—	—	—	—	.....	—	—	—	.....
Cambodia.....	522	.40	.40	.40	.40	.40	.40	.40	.....	.40	.40	.40	.....
China, P.R.: Mainland.....	924	19.29	19.29	19.29	19.29	19.29	19.29	19.29	.....	19.29	19.29	19.29	.....
China, P.R.: Hong Kong.....	532	.07	.07	.07	.07	.07	.07	.07	.....	.07	.07	.07	.....
China, P.R.: Macao.....	546	—	—	—	—	—	—	—	.....	—	—	—	.....
Fiji.....	819	—	—	—	.01	.01	.01	.01	.....	.01	.01	.01	.....
India.....	534	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Indonesia.....	536	3.10	3.10	3.10	3.10	3.10	3.10	3.10	.....	3.10	3.10	3.10	.....
Korea.....	542	.44	.45	.45	.46	.46	.46	.46	.....	.46	.46	.46	.....
Lao People's Democratic Rep.....	544	.07	.12	.12	.15	.15	.15	.....	.....	.....	.....	.....	.....
Malaysia.....	548	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
Maldives.....	556	—	—	—	—	—	—	—	.....	—	—	—	.....
Micronesia, Fed. States of.....	868	—	—	—	—	—	—	—	.....	—	—	—	.....