

LBMA Platinum Price and LBMA Palladium Price Discovery Process

Part A: Discovery Process

1. DEFINITIONS

1.1 In this Schedule:

"the Auction" means the process which describes each price discovery for the London platinum and palladium prices;

"the Board" means the board of directors of the LME from time to time;

"the Chair" means the chair of the Benchmark Pricing Function responsible for the Pricing Discovery Event;

"the Directors" means members on the Board of Directors of LME;

"the Discovered Price" means the twice-daily price for platinum and / or palladium (as relevant) as determined in accordance with these LPP Prices Regulations;

"the Opening Price" means the opening price for platinum or palladium determined and entered by the Chair at the start of each Pricing Discovery Event (for platinum) or shortly after the Discovered Price for platinum has been determined on the Pricing Discovery Event (for palladium); and

"a Proposed Price" means a price proposed by the Chair during the Pricing Discovery Event including, for the avoidance of doubt, the Opening Price.

1.2 Words and expressions in this Schedule shall have the meanings given to them in the LPP Prices Regulations unless otherwise specified.

1.3 References in paragraphs 3 to 7 of this Schedule to a Participant refer to a "logged-in" present Participant attending the Pricing Discovery Event.

2. GENERAL

2.1 The Chair of the Pricing Discovery Event shall be a member of the Benchmark Pricing Function who will oversee the establishment of the LPP Prices on the premises of the LME.

2.2 The Pricing Discovery Event shall commence promptly at 9:45 am and at 2:00 pm on each Business Day (other than on 24 December, if a Business Day, and 31 December, if a Business Day, when there shall not be a Pricing Discovery Event at 2:00 pm), save where the Pricing Discovery Event is delayed or the LPP Prices can no longer be discovered or published in accordance with this Schedule 1 Part A on a temporary or permanent basis. On each Pricing Discovery Event, the Discovered Price for platinum shall be determined first, followed by the Discovered Price for palladium.

2.3 The Chair shall, by exercising his judgment in good faith, not commence the Auction for a Pricing Discovery Event until the minimum requirement for the number of Participants logged into LMEbullion has been met. Currently, three Member Participants logged into

LMEbullion shall denote the required quorum. Where a Member Participant has different Users for its house and client account in accordance with Regulation [4.6\(a\)\(ii\)](#), the house account User and at least one client account User must be logged into LMEbullion in order for the Member Participant to be counted in the quorum.

- 2.4 The circumstances in which the Chair may choose to delay a particular Pricing Discovery Event are set out in the LME's Business Continuity Procedures.
- 2.5 No person shall participate in a Pricing Discovery Event on an unsupervised basis unless they have demonstrated sufficient experience and expertise in relation to the platinum and palladium markets and have received sufficient training in relation to the Auction process using LMEbullion, which at a minimum should mean, other than an exceptional contingency scenario that they have:
 - (a) been active in a Pricing Discovery Event as the representative of their Participant on at least five occasions under the supervision of a senior manager who has sufficient experience and expertise; and
 - (b) received training in accordance with the requirements of the LPP Prices Regulations.

3. **PRICE DISCOVERY PROCESS**

3.1 **The Opening Price:**

- (a) The Pricing Discovery Event commences with the Chair determining the Opening Price and submitting this into the administration screen in LMEbullion. The Opening Price shall be determined by the Chair using their discretion and expert judgement to analyse relevant sources and/or data feeds as necessary. The Chair will identify the level of the Opening Price at all times by exercising his/her expert judgment in good faith. This process and the Auction thereafter shall be overseen by at least one other member of the Benchmark Pricing Function.
- (b) The Auction may only proceed if the minimum number of Member Participants are present and logged into LMEbullion to provide a quorum.

3.2 **Submitting orders in LMEbullion**

- (a) When an Opening Price has been entered and at all other prices proposed by the Chair during the establishment of the LPP Prices, Participants must submit in LMEbullion whether they are a buyer or seller and the volume of their orders or have no interest at that Proposed Price. Each Member Participant may net Client orders off together with their principal interest to work out the Member Participant's overall interest. Alternatively, Member Participants may log in as 'House and Client' to segregate orders, or direct access may be granted for Client Participants to enter their own orders.
- (b) All Participants in the Auction must have agreed to abide by the LPP Prices Regulations in accordance with Regulation 4. Indications of interest shall be entered via LMEbullion by all 'logged in' present Participants through their Users providing that the Pricing Discovery Event is quorate and the Chair has entered his/her Opening Price to begin the Auction. Orders are submitted as 'buy,' 'sell,' or 'no interest' with volume entered for 'buy' or 'sell' orders. When all Participants present in the Auction have entered their interest, LMEbullion will enter a 'grace'

period of five seconds following which the calculations will take place based on the net of Participant's interest to determine the overall net imbalance of volume, taking into account all entered net Participant interest. The Proposed Price shall either become the Discovered Price or adjusted thereafter dependent on the outcome of these calculations. For the avoidance of doubt, orders can still be amended during the grace period.

- (c) LMEbullion shall calculate the net imbalance of buys and sells (based on the net of Participant's interest) and determine whether the price shall be the Discovered Price at the Proposed Price. The price shall be the Discovered Price at such levels if the imbalance is at 4,000 troy ounces or less. In the event that the imbalance is higher than 4,000 troy ounces then LMEbullion shall recalculate the Proposed Price and adjust the price higher or lower based on the methodology set out in section 5.2 below or at the discretion of the Chair. The new Proposed Price shall form the basis of the next Auction round.
- (d) Member Participants may, at their own risk and without implying any responsibility on the part of LME, communicate the Proposed Price to their Clients during the Pricing Discovery Event. Any fee paid by Clients will be agreed by negotiation between them.

4. DECLARATION OF QUANTITY

- 4.1 Participants must submit their orders in minimum increments of 1 troy ounce of platinum or palladium and such submissions shall be firm buy or sell orders as the case may be.
- 4.2 If at a Proposed Price the quantities of platinum or palladium bid and offered by the Participants are in equilibrium, or the difference between the quantity of platinum or palladium bid and the quantity of offered is 4,000 troy ounces or less, the Proposed Price shall be the Discovered Price.

5. ADJUSTING THE PROPOSED PRICE

- 5.1 If at a Proposed Price the quantities of platinum or palladium bid and offered are not in equilibrium and the difference between quantities bid and offered is more than 4,000 troy ounces, the Chair (with the assistance of an automated algorithm in LMEbullion) shall adjust the Proposed Price higher or lower in an attempt to identify the point at which supply and demand will meet.
- 5.2 LMEbullion shall, when calculating the increments in which to adjust the Proposed Price, consider the level of buying and selling orders submitted in the Auction. Should the net imbalance of buys and sells be:
 - (a) Between 4,001 and 6,000 troy ounces, the price will be adjusted by 1 US Dollar (up or down dependent on net imbalance of buys or sells respectively);
 - (b) Between 6,001 and 10,000 troy ounces, the price will be adjusted by 2 US Dollars (up or down dependent on net imbalance of buys or sells respectively);
 - (c) 10,001 troy ounces and above, the price will be adjusted by 3 US Dollars (up or down dependent on net imbalance of buys or sells respectively).

In all cases the Chair shall have overall discretion and may use expert judgement and all relevant source material to determine Proposed Prices and any adjusted prices thereafter

if deemed necessary. The minimum price fluctuation that the Chair may use shall be 0.25 US Dollars.

5.3 The Chair shall repeat the price adjustment procedure until he/she is able to declare the price as the Discovered Price in accordance with this Schedule.

5.4 In the event that the Proposed Price has changed direction (that is to say, an upwards movement in the Proposed Price to reflect a net buying imbalance above 4,000 troy ounces, followed by a downwards movement in the Proposed Price to reflect a net selling imbalance above 4,000 troy ounces, or vice versa) on six or more occasions during a single Auction, the Chair may at his/her discretion adjust the Proposed Price by a smaller fraction of 1.00 US Dollar in an attempt to reduce the imbalance to 4,000 or less troy ounces and establish a Discovered Price. In the event that a Discovered Price cannot be established because the Proposed Price continues to change direction (that is to say, an upwards movement in the Proposed Price to reflect a net buying imbalance above 4,000 troy ounces, followed by a downwards movement in the Proposed Price to reflect a net selling imbalance above 4,000 troy ounces, or vice versa) on six or more occasions during a single Auction after a 0.5 US Dollar (50 cents) and/or a 0.25 US Dollar (25 cents) change in the price, the Chair shall adjust the permitted imbalance to 8,000 troy ounces. The Chair may repeat the procedure set out in this section 5.4 until the Discovered Price is determined and may, if necessary in order to establish the Discovered Price, further increase the permitted imbalance to 12,000 troy ounces. Where the Chair has declared the Discovered Price in accordance with this paragraph, Member Participants will be allocated PP Trades pursuant to this Schedule and are required to settle any such PP Trades at the Discovered Price.

6. **FLAGS**

6.1 If, at any time during the Auction prior to the Chair confirming the price as the Discovered Price, a Member Participant's User requires a short pause to recalculate its interest, that User may use the 'flag' functionality within LMEbullion. This prevents the discovery of the LPP Prices, effectively bringing a temporary halt to the process. To keep such flagged periods as short as possible, LMEbullion is programmed to automatically bring down any raised flag after a set period of 30 seconds. Member Participants' Users should therefore submit their recalculated order as promptly as possible after having called the flag.

6.2 The Benchmark Pricing Function may also utilise the flag function to pause an Auction. For the avoidance of doubt, Client Participants will not have use of the flag functionality.

6.3 The Chair may not declare the price as discovered during such a pause, although Participants may continue to enter or amend orders.

6.4 If a flag is raised while a grace period (referred to at paragraph 3.2(b) above) is running, that grace period will stop. Once all raised flags are lowered, a new grace period will begin.

6.5 If a flag is raised otherwise than during a grace period, when all raised flags are subsequently lowered, the process will continue which, if all Participant interest has been entered, will automatically start a grace period running.

7. **CONTRACT MATCHING**

7.1 Once the LPP Prices have been discovered by the Chair, buy and sell orders submitted in relation to the Discovered Prices may not be altered or withdrawn by the Participants.

LMEbullion will subsequently generate a report stating that the price is the Discovered Price, state the time at which it has been discovered and the final price.

- 7.2 Algorithms within LMEbullion shall then match up Member Participant Net Interest and will specify the PP Trades that must then be executed bilaterally between Member Participants. This will be included in the summary report generated (as above) and an email will be generated and sent to all relevant Member Participants confirming the PP Trades to be executed. The algorithm will determine that LMEbullion shall fill the Member Participant Net Interest that is the largest sell order first by matching that order with the Member Participant Net Interest that is the largest buy order, with Member Participant Net Interest then being matched in descending order size.
- 7.3 Where all Member Participant Net Interest has been allocated and supply has not exactly matched demand and the price has instead been discovered when the difference between quantities of platinum or palladium bid and offered was 4,000 troy ounces or less, LMEbullion will automatically pro rata the difference between supply and demand between the Member Participants. For example, if there is more buying than selling interest (with two Member Participant buyers and two Member Participant sellers) and the difference is 4,000 troy ounces, the algorithm in LMEbullion will specify that each Member Participant buyer shall reduce their buying interest by 1,000 troy ounces and each Member Participant seller shall increase their selling interest by 1,000 troy ounces.
- 7.4 Once this process has been followed for both platinum and palladium, the Auction and Pricing Discovery Event process will end. Records of the Pricing Discovery Event (including each of the Proposed Prices and the changes in Participants' interests during the process) shall be fully recorded and an audit trail shall be maintained for all actions from a Participant and administrator perspective in accordance with LME's record keeping procedure.
- 7.5 Member Participants shall then execute the PP Trades allocated to them by the Chair. These PP Trades are required to be executed at 0.5 US Dollars above the Discovered Price (known as the seller's premium). Settlement of these PP Trades will take place two Business Days after the date of the pricing. All aspects of execution/administration of these PP Trades are the responsibility of the Member Participants, notwithstanding that a failure of a Member Participant to perform its contractual obligations in relation to PP Trades may be investigated by the LME in connection with its role in overseeing the LPP Prices Discovery Process and compliance.
- 7.6 As PP Trades are calculated on the basis of the net position of all Participants, no individual User or Client Participant can be guaranteed the execution of the gross orders entered into LMEbullion. It is the responsibility of Member Participants to enter into separate arrangements with Clients to ensure that Clients' transactions are effected separately to the Pricing Discovery Event.

8. **PUBLICATION OF THE LPP PRICES**

- 8.1 Price information relating to Proposed Prices and cumulative buy/sell volumes shall be published as live data to licensed vendors as the Pricing Discovery Event are in process. The Discovered Price shall then be displayed following the end of the Auction. This will include all relevant time stamps.
- 8.2 LMEbullion shall display a running public commentary of Proposed Prices, buy/sell orders (on an anonymised basis) and the Discovered Prices with relevant time stamps. This

data shall be available to those registered with LMEbullion on either a real-time or delayed data basis, such delay being at the discretion of LME.

- 8.3 An email will be sent to each Member Participant following the discovery of the London platinum and palladium prices confirming the prices, the time that the prices were discovered and the PP Trades that will be executed by the Member Participant (as mentioned above).

Part B – Alternative Process

ALTERNATIVE PROCESS

1. PURPOSE

- 1.1 This policy applies to the activities of LME in operating the LPP Prices Discovery Process.
- 1.2 The objective of this policy is to set out LME's policies and procedures in the event that the Pricing Discovery Event is delayed or that the prices can no longer be discovered or published on a temporary or permanent basis.

2. CONTINGENCY MEASURES

- 2.1 If the Chair of the Pricing Discovery Event is unable to attend, an alternate shall be selected from the Benchmark Pricing Function.
- 2.2 In the event that the minimum quorum requirement has not been met at the start of any Pricing Discovery Event, the Chair shall attempt to contact relevant participants to ascertain why that Participant has been unable to join the Pricing Discovery Event.
- 2.3 If a system outage results in Participants being unable to login to LMEbullion and subsequently the required quorum is not met, the Chair may at his/her discretion delay the commencement of the Pricing Discovery Event for up to 1 hour. If resolved within 1 hour the Pricing Discovery Event will be restarted by the Chair and the LPP Prices will be discovered in line with standard procedure.
- 2.4 If, having delayed the commencement of the Pricing Discovery Event for 1 hour the LPP Prices cannot be established through LMEbullion, the Chair, in the first instance, may initiate the Pricing Discovery Event through a secure Process telephone call with the Participants gaining access through their pre-agreed secure dial in codes. Participants shall submit orders verbally with the Chair confirming each submission. The Chair shall determine the individual LPP Price for platinum and palladium through separate Auctions, calculating the net imbalance of buys and/or sells and adjusting the price accordingly in line with standard procedure.
- 2.5 In the event that a Pricing Discovery Event cannot be conducted and the LPP Price cannot otherwise be determined under this Schedule 1B, a "no-fix" shall be declared.
- 2.6 LME will use best endeavours to publish the LPP Prices in accordance with paragraph 8 of Schedule 1 A (*Publication of the LPP Prices*) where such means of publication are available and otherwise on the internet, by email or any other communication LME may determine reasonable in the circumstances.

3. RESPONSIBILITIES IN RESPECT OF THE POLICY

- 3.1 This policy is owned by the Oversight Committee and is subject to annual review and sign off by the LME Board. It will also be reviewed in line with business changes and changes to applicable law and, regulation.
- 3.2 This policy will be communicated upon each change in policy and will be published on the LME's website.

4. **QUERIES**

4.1 Any questions about this policy should be addressed to the Oversight Committee.