

To: All Members and other interested parties

Ref: 18/195

Classification: General updates Trading

Date: 1 August 2018

Subject: **MARKET ENGAGEMENT ON TRIAL OF ELECTRONIC CLOSING PRICES AND TRADE-AT-SETTLEMENT ORDER BOOKS**

Summary

1. The London Metal Exchange (the “**LME**” or the “**Exchange**”) is seeking the views of Members, Clients, and other interested parties in respect of the introduction of a trial period during which Closing Prices for a subset of the LME’s base metal contracts will be determined exclusively with reference to activity on LMEselect, and on the utilisation of trade-at-settlement (“**TAS**”) functionality both during this trial period, and for base metals markets generally (the “**Market Engagement**”).

Defined terms

2. Terms not otherwise defined herein shall have the meaning ascribed to them in the Rules and Regulations of the LME (the “**Rulebook**”).

Background

3. LME Notice 17/302, dated 7 September 2017, provided market participants with the summary of feedback received in response to the LME’s Discussion Paper on Market Structure, and published the LME’s strategic pathway (“**Strategic Pathway**”).
4. With regard to price discovery, there were a number of responses from market participants who are highly supportive of procedures used on the Ring to determine the Official Prices (discovered on the 2nd Ring close, and largely used by physical participants) and Closing Prices (used for end-of-day valuation and margining purposes). However, there were also a number of respondents who expressed a preference specifically around an electronically derived methodology for determining the Closing Prices for consistency with most other markets which they trade. The LME committed to retaining discovery of the Official Prices in the Ring, but acknowledged that there exists an opportunity to consider an evolution of the Closing Price discovery mechanism.
5. It was therefore stated that the LME would undertake an exploratory period whereby the Closing Prices for a subset of the LME’s base metal contracts would be derived from an electronic mechanism, likely supported by an electronic TAS functionality. The precise parameters of the trial electronic process would be established by prior engagement with the market, which is the subject of this Market Engagement.
6. Aside from consistency in process with other markets, those market participants who favour an electronically derived Closing Price had commented that the current process limited the ability to interact with other market participants in the event that there were significant price movements



towards the end of the relevant kerb session. Whilst market participants could leave resting orders with their brokers, which was highlighted by a number of Members, it is often the case that trading decisions can and do change rapidly in response to price movements leading to a more immediate and flexible requirement to manage risk. An electronic solution for the LME's Closing Price discovery process could therefore provide better access to a greater number of participants which in turn could help develop and grow the market.

7. The LME is also aware that one of the services that Members provide to their Clients is to "guarantee" their Clients the Closing Price. This essentially entails the Member taking the risk of the Client order onto its own books, whilst it seeks to manage the consequent risk. This can be achieved through the inter-office venue, by matching business on the Ring outside of the kerb session, or by placing an order in the Ring during the kerb session and, through the skill and expertise of the Dealer, seeking to obtain the Closing Price. (It should be noted that the Closing Price is determined with the application of a formula to trade data, and bid or offer data in the relevant kerb session, subject to the discretion of the LME Quotations Committee.)
8. In the event that a Member is not able to offset the risk through one of the methods detailed above, then it will retain the position on its own books, with the Client having been assured of the Closing Price when the order had been submitted to the Member. Therefore, the "guarantee" to the Client is not a guarantee of execution of the order in either the Ring or inter-office venue, but a guarantee of filling the order at the Closing Price, irrespective of the Member's ability to hedge the resultant price risk.
9. This provision of liquidity by Members to their Clients is an important element of the market, and in recognition of this the LME will be introducing TAS functionality so as to provide Members (and those Clients to whom Members have provided Direct Electronic Access) with another means by which they are able to transact business. During the trial period, Members will be able to continue to offer their Clients a "guarantee" of the Closing Price, but when seeking to offset the risk, may use the inter-office venue, LMEselect, and the TAS order book to do so (but, for the avoidance of doubt, will not be required to use the TAS to do so). The LME recognises that this may not necessarily replicate the current process for a "guarantee" of the Closing Price in full as a different venue and methodology will be used during the trial to determine the relevant Closing Price. The effectiveness of TAS functionality and any change in market behaviour around the ability to "guarantee" the Closing Price will be a key factor in evaluating the results of the trial.
10. The TAS order book will allow orders to be submitted throughout the trading day basis the relevant Closing Price, or at a premium/discount to the relevant Closing Price. If an order matches with another TAS order, then notification of the execution of the order will be sent automatically to the relevant counterparties, and the resulting matched transaction will be submitted to the LME's Matching System, LMEsmart, with a short-code as the trade price, to denote that it was a TAS-originated transaction. When the relevant Closing Price has been published to the market, the short-code will be replaced with the relevant Closing Price, and the transaction will be submitted to LMEmercury for clearing. Any orders left unmatched at the time the TAS order book closes (see paragraph 29 for further detail) will be automatically removed from LMEselect.
11. The Notice referred to in paragraph 3 above made it clear that the LME fully recognises the potentially negative consequences to its Ring Dealing Members of any longer-term move to electronic discovery of Closing Prices. However, it should be emphasised that such a move is by no means a foregone conclusion on a permanent basis.



12. The LME is particularly interested in feedback regarding whether a move to an electronically derived Closing Price is likely to have any impact on Members' contractual arrangements with Clients and also whether existing contracts themselves could be impacted.

The Market Engagement process

13. The Market Engagement is open to all interested parties, including, without limitation, Members, Clients of Members and Affiliates of Members. For the avoidance of doubt, the LME notes that this Market Engagement does not constitute a formal consultation (pursuant to applicable legal and/or regulatory requirements).
14. Responses to this informal Market Engagement should be submitted in writing, and may be submitted until close of business on 28 September 2018. Responses made after this date may not be taken into consideration.
15. Any market participant wishing to ask questions or to seek clarification on any aspect of the Market Engagement, or to respond to it, is asked to contact marketengagement@lme.com. Although the LME will consider responses submitted in any format, it would be helpful if respondents could reply to the numbered questions set out below.
16. The LME may, in its discretion and having taken account of feedback, ultimately implement all, some or none of the proposals set out in this Market Engagement. Where the LME seeks to implement a proposal, it may do so in the form set out in this Market Engagement, or in a revised form.
17. The LME may need to share responses received with regulatory authorities, members of its group including LME Clear, its legal or other professional advisers, or as required by law. Anonymised responses (verbatim or paraphrased) may be included in the decision notice stating the outcome of this Market Engagement. Apart from this, all responses received will be treated in confidence.

The trial of electronic Closing Prices proposal

18. Paragraphs 18 to 27 set out details of the proposal to introduce a trial period for the determination of Closing Prices exclusively with reference to activity on LMEselect (the "**Proposal**"). The LME's intention is to collect data during the trial that it can share with the market to assess the effectiveness of electronic and Ring methodologies for the determination of the Closing Prices. The trial is not a precursor to moving to electronic determination for the Closing Prices, but rather, an exercise to collect data on the effectiveness of each of the pricing methods, to enable a meaningful comparison.

The trial process

19. Whilst the Strategic Pathway envisaged the possibility of a subset of the LME's base metal contracts being the basis of the trial process, the LME has concluded that it would be appropriate to conduct the trial with just one base metal product. The reason for this is that the LME recognises that the trial will result in considerable disruption to Ring Dealing Members, all of whom will have to adjust their processes and procedures to varying extent. By having just one base metal product included, it is hoped to minimise the impact of the trial to Ring Dealing Members' existing business practices.
20. As to the base metal product considered appropriate to be part of the trial, the LME proposes that it be nickel for the following reasons:



- (a) nickel trading volumes for January 2018 – May 2018 accounted for 13.3% of the total volumes transacted through LMEselect for that period); and
 - (b) intra-day price volatility (i.e. daily high/low range) was 3.03%.
21. These factors make nickel an appropriate product to be the subject of the trial given the broadly representative nature of the market as a whole. If, however, at any point during the trial the LME considers it to be in the best interests of the market to trial another base metal product other than nickel, then it will exercise its right and discretion to do so. In this instance, the withdrawal of nickel from the trial and the addition of another base metal product would be notified to the market setting out the process for the transition.
22. With regard to which Prompt Dates should be part of the trial, the LME is mindful both of the complexity and significant number of possible permutations of Carries that could be quoted. Although the technology exists to allow for the whole price curve to be determined electronically, the LME considers it to be more appropriate for just the 3-month Prompt Date be part of the trial. (It is worth noting that currently around 95% of 3-month business on the LME is transacted on LMEselect.) This will allow market participants to focus on a single Prompt Date rather than attempt to cover the whole price curve in the first instance. The LME also acknowledges that most of the feedback from market participants who are in favour of an electronically derived methodology related specifically to the determination of the 3-month Closing Price rather than the whole price curve.
23. As to the process to be employed for the trial, the LME has reviewed similar processes used by other markets, as well as having gained experience through electronically discovering Daily Settlement Prices (broadly equivalent to base metal Closing Prices for its Ferrous and LMEprecious suite of products). Consequently, the LME proposes that a similar volume weighted average price (“VWAP”) “waterfall” methodology as used for both its Ferrous and LMEprecious suites of products be used, as follows:
- (a) a two-minute Pricing Period of activity on LMEselect, commencing at 17:00 hours (“**Pricing Period**”), be used as the reference period for discovering the Closing Price;
 - (b) if no trades have occurred during the Pricing Period, then the mid-point of the bid/offer on the close of the Pricing Period will be used. Where this is not appropriate, then the Closing Price will be determined by the LME in its absolute discretion using expert judgement;
 - (c) if no trades have occurred during the Pricing Period and no bid/offer exists at the end of the Pricing Period, then the last traded price may be used, but there is no obligation to determine the Closing Price at that level;
 - (d) if no trades have occurred during that day and no bid/offer exists, then the Closing Price will be determined by the LME with reference to market activity in related Prompt Dates and/or market activity during the pricing period on the previous Business Day; and
 - (e) where no such pricing information exists, then the Closing Price will be determined by the LME in its absolute discretion using expert judgement.
24. Due to the above amendment to the methodology for determining Closing Prices, the LME is also consulting on changes to its Rulebook to clarify the existing protocol, which is that VWAP calculations may be used to determine prices where the LME sees fit. Please see LME Notice 18/194 for further details of these changes.



25. Once a provisional Closing Price has been discovered using the process detailed in paragraph 23 above, it shall be published to the market as soon as practicable. An objection period of 15 minutes will then follow, during which market participants may contact the LME to raise any material matters which they consider the LME should take into consideration when discovering the Closing Price. At the end of the objection period the LME will publish the final Closing Price to the market. It is the intention of the LME that the electronically derived 3-month Closing Price for nickel will be published as part of the full suite of Closing Prices for LME base metal contracts to ensure consistency during the trial.
26. During the trial, the determination of the Closing Price for Carries (and thus for Prompt Dates other than the 3-month) will continue to be based on Ring trading. The Ring procedure for the nickel kerb during the trial period will be amended, such that the period of Carry trading will be 16:55 to 17:00 (currently 16:55 to 16:59, with the subsequent minute solely for 3-month trading). For the avoidance of doubt, Ring traders will still be permitted to trade 3-month outright during this kerb period, but these trades will not contribute to the determination of the Closing Price.
27. During the trial, the Quotations Committee will still be responsible for determining and publishing the Closing Price for nickel 3-month contracts, and will retain discretion to exclude certain data where this is necessary to avoid an unrepresentative Closing Price being reached (for example, in the case of disorderly market conditions).

TAS functionality

28. As noted in paragraphs 9 and 10 above, the LME will be introducing TAS functionality in order to facilitate the execution of orders at the relevant Closing Price. This will be new functionality within LMEselect, and as such the LME considers that it would be beneficial for market participants, both Members and Clients, to become familiar with how this functionality would operate prior to the commencement of the trial period. The LME intends to introduce TAS functionality in any case (to enable the trading of LMEprecious reference prices), but it will also be beneficial in the context of the trial.
29. The LME proposes that the TAS functionality be available in 3-month nickel for use at least one month prior to the commencement of the trial period (subject to feedback from this Market Engagement), and that the TAS order book will close each day at the commencement of the settlement pricing period (thus 16:59 when 3-month nickel is determined in the Ring, 17:00 when using the electronic VWAP).
30. It is possible for TAS functionality to be utilised more generally for market participants wanting to manage exposure to Closing Prices, whether those prices are determined on the Ring, electronically, or with any other process. The LME is interested in views as to whether, during the trial, TAS order books should only be available for those nickel prices which are determined electronically (thus only the 3-month Prompt Date) or whether the market would benefit from some additional TAS order books in instruments where market participants often try to target Closing Prices (such as nearby monthly Carries).
31. The LME notes that utilisation of TAS functionality will not be mandatory. Currently utilised methods of execution, including Members guaranteeing the Closing Price to Clients, and crossing up of closing business in the inter-office market, will continue to be permitted.

Assessment of the trial

32. The trial period is intended to start during Q1 2019. It will last for three months, which is considered to be a sufficient period to assess the effectiveness of the proposed electronic



Closing Price process, recognising that no trial period can hope to cover all the market scenarios that may occur. Exact timings for the trial will be confirmed by Notice after the outcome of this Market Engagement is published.

33. During the trial, the LME will monitor (amongst other things) the following:
- (a) where the VWAP has been used to discover the Closing Price, the number and size of transactions together with the number of market participants;
 - (b) usage of the TAS functionality, including number of orders submitted, number and size of matched transactions, number and size of orders remaining unmatched at the close of each TAS session;
 - (c) price volatility during the Pricing Period;
 - (d) the state of the order book before, during and after the Pricing Period; and
 - (e) general feedback from market participants.

Potential impacts of the trial

34. The LME is aware that market participants use Closing Prices for various purposes, including for margining in relation to both LME and OTC contracts. The LME is interested in market participants' feedback regarding the potential impact of the trial on these existing contracts, and market participants are invited to provide information regarding any potential impacts in response to question 11 below.

After the trial

35. At the end of the trial period, the discovery of 3-month nickel will revert to the Ring with effect from the first Business Day following the end of the trial period.
36. The LME will then review the outcome of the trial, taking into consideration the aspects identified in paragraph 33 above, plus any that may be suggested as part of this Market Engagement.
37. The LME will seek to provide feedback to market participants following the end of the trial.
38. In the event that the trial indicates that electronic price determination is preferable, the LME may look to move to the electronic process for 3-month nickel permanently, and may look to move the Closing Price process for the 3-month Prompt Dates for other metals to an electronic process, which may be done at the same time as the process for nickel is moved, and may be done for all base metals at once, or on a metal-by-metal basis.
39. Should the Closing Price discovery for 3-month Prompt Dates move to an electronic process more permanently, the LME will then carefully consider the potential next steps, such as trialling an electronic Closing Price process for other Prompt Dates. The LME believes this would require significant further input from market participants due to the complex nature of the LME base metals' date structure, and the fact that a large portion of Carry trades are done through both the Ring and inter-office venues.

Market Engagement questions

40. The LME requests that respondents to the Market Engagement answer the following questions:



Question 1 – Do you have any comments on the proposal to undertake the trial period signposted in the Strategic Pathway and detailed herein?

Question 2 – Do you agree with the selection of nickel as the base metal for the trial, and if not, what other base metal(s) should be used?

Question 3 – Do you agree that the 3-month Prompt Date Closing Price should be discovered electronically, and that Carries should continue to be discovered in the Ring, and if not, why?

Question 4 – Do you agree that the 3-month Prompt Date Closing Price should be discovered during a two-minute period of activity on LMEselect, using a VWAP, and if not, then what should the time period be?

Question 5 – Do you agree that the TAS order book for the 3-month Prompt Date should be available from 01:00 – 17:00 London time (i.e. that it should not be available during the VWAP period), and if not, why?

Questions 6 – Do you think the LME should make available any further TAS order books in addition to the 3-month? If so, which order books and why?

Question 7 – Do you agree that the TAS functionality should be made available prior to the commencement of the trial period, and if not, why?

Question 8 – Do you agree with the “waterfall” methodology proposed in paragraph 23 above, and if not, what other methodology should be used?

Question 9 – Do you agree that the trial period should last for three months, and if not, then for how long?

Question 10 – Do you agree with the factors that will be taken into consideration to assess the effectiveness of the trial, and if not, what other factors should be considered?

Question 11 – Do you have any comments on the way in which the use of an electronically derived Closing Price may impact Members’ existing contracts (both LME Contracts and, if relevant, non-LME Contracts)?

Question 12 – Do you have any other comments in relation to this Market Engagement?

Matthew Chamberlain
Chief Executive Officer

cc: Board directors
User Committee
All metal committees
Trading Committee
Ring Dealers Committee
Traded Options Committee
Warehousing Committee
Physical Market Committee