LME Discussion Paper on Market Structure

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An HKEX Company

SETTING THE GLOBAL STANDARD

Contents

1 Executive summary

This Discussion Paper on Market Structure proposes several structural changes which the LME[1] believes will allow the Exchange and Clearing House to modernise and remain fit for the future – enabling the LME to adapt and service the market as effectively as possible. The proposals aim to achieve increased transparency – which not only aligns with the regulatory direction of travel but more broadly allows for structurally fairer and more efficient and liquid markets. A greater digital presence also responds and caters to the rapidly increasing digitisation across commodity trading and the physical industry.

The LME's 2017 discussion paper on market structure and subsequent strategic pathway marked out a development trajectory that the LME has since pursued, leading to fee optimisation, a greater choice of trade execution options and the launch of new product suites and membership services. However, there are a number of additional structural developments the LME believes would deliver significant benefits to the market as a whole and which resonate fundamentally with its strategic principles of serving the physical market; ensuring fairness; increasing user choice and maximising trading efficiency.

These proposed developments correspond to three main topics:

1. The Ring and reference prices
2. Enhancing liquidity
3. Realised variation margin

It is the LME's belief that questions of market structure are inextricably linked with market conduct considerations. As such, this discussion paper also seeks feedback on market conduct matters where relevant to these topics. In addition, this paper also considers market conduct matters connected with broader areas of the LME's market structure, such as in relation to stocks and the movement of physical metal.

2 Background

In April 2017 the LME published its initial Discussion Paper on Market Structure (the "**2017 Discussion Paper**"). This document looked at a wide range of aspects of the LME: the LME ecosystem; trading and booking structure; clearing structure; delivery and physical market structure; membership; volume, competition, fee structures and growth; and other matters. The LME laid out many of the specific features of LME market structure, and posed questions to participants on how the structure is used, and in which areas of the structure it may be beneficial to see development. The responses to the 2017 Discussion Paper helped inform the LME on the views of its participants, and led to the formation of the LME Strategic Pathway, published in September 2017 (the "**2017 Strategic Pathway**"). In this document the LME introduced its strategic principles, and laid out the strategic direction and intended actions in each area that would be pursued in order to best achieve these principles. The principles are:

- Serve the physical market
- Ensure fairness
- Increase user choice
- Maximise trading efficiency

Three years later, it is now the appropriate time to review that work, and consider the next phase of market structure development for the LME.

[1] Throughout this document "LME" is used to mean both LME and LME Clear where appropriate

In this Discussion Paper on Market Structure (the "**Discussion Paper**") the LME reviews its strategic principles, the changes that were made as a result of the 2017 Strategic Pathway, and external factors that have changed. It will then look at where it may be beneficial to further develop the LME's market structure, and seek the views of participants in a number of areas.

The 2017 Discussion Paper considered a wide and varied number of topics across all areas of the LME, to ensure it secured a broad overall understanding from participants of their views on the LME's market structure. This Discussion Paper focuses on a few key areas, where further development, in the LME's view, would be valuable in order to remain fit for the future.

Over the second half of 2020, the LME convened a market conduct working group which considered a number of wide reaching market conduct topics. Many of the topics discussed in the working group are intrinsically linked to market structure considerations, as they concern the rules which participants in a market must abide by and their resulting actions. As such, this Discussion Paper will also examine market conduct considerations, alongside potential market structure developments, in order to ensure that market participants can consider the overall impact of any potential changes.

2.1 Market engagement process

In this Discussion Paper, the LME considers a number of topics for potential market structure evolution, on which it is seeking feedback from participants. The LME has provided information which it considers to be relevant to each topic, including its own current views on relevant issues and, where appropriate, on the LME's proposed direction of travel, in order to assist all stakeholders to understand the current position and inform their evaluation.

Each section of this Discussion Paper concludes with an "LME position" box, an "intended benefits and potential challenges" box for sections introducing new proposals, and a "discussion questions" box:

LME position

- **The "LME position" box summarises the LME's current analysis and (if relevant) proposed policy position in respect of the topic under consideration.**
- **In setting out its position in this Discussion Paper, the LME has sought to provide guidance to the market on its thinking, while recognising that no final decision will be reached until market feedback is fully considered.**

Intended benefits and potential challenges

- **The "intended benefits and potential challenges" box summarises the intended benefits to the market of introducing the proposed changes discussed in the Discussion Paper, and the potential challenges that may arise as a result of these changes.**
- **This box is intended to be a helpful summary of the LME's present understanding of the biggest impacts in relation to the potential changes, but is not intended to be exhaustive. The LME welcomes feedback on this understanding from participants.**

Discussion questions

- **The "discussion questions" box contains numbered questions, on which the LME is soliciting market feedback.**

Responses to this Discussion Paper should be submitted in writing to DiscussionPaper@lme.com, at any time prior to close of business on 19 March 2021. Responses made after this date may not be taken into consideration.

Although the LME will consider responses submitted in any format, it would be helpful if respondents could reply to the numbered questions set out in the discussion questions boxes. Responses are of course not precluded from commenting on other matters.

Any market participant wishing to ask a question, or have a meeting, in order to seek clarification on any aspect of the Discussion Paper is asked to contact DiscussionPaper@lme.com.

The LME may, at its discretion and having taken account of feedback, ultimately implement all, some or none of the proposals set out in this Discussion Paper. Where the LME seeks to implement a proposal, it may do so in the form set out in this Discussion Paper, or in a revised form. Further, in any subsequent consultation on changes, the LME may include proposals which are not covered in this Discussion Paper (for example, in response to suggestions from the market engagement process or the LME's own findings or otherwise). Responses received will be treated in confidence, except that (a) 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; and (b) anonymised responses may (i) be included in any notice stating the outcome of this market engagement (although the LME shall be under no obligation to produce such a notice), and (ii) be shared with its User Committee or other relevant advisory committees, as part of its process for defining next steps, unless (in the case of (i) and (ii)) respondents specifically identify any aspect of their response which they believe requires confidentiality.

2.2 Changes as a result of the 2017 Strategic Pathway

In the 2017 Strategic Pathway, the LME laid out the following strategic principles to guide the evolution of its market: serve the physical market; ensure fairness; increase user choice; and maximise trading efficiency. These principles are further considered in section 3 below. Within the 2017 Strategic Pathway, the LME also undertook a number of market structure initiatives across the various areas, as summarised below.

2.2.1 The LME Ecosystem

The 2017 Strategic Pathway sought to identify ways to encourage participants to add liquidity and enhance execution quality on LMEselect, the electronic central limit order book.

To this end, the LME has successfully reshaped and simplified its incentive programmes to encourage liquidity-enhancing behaviour from proprietary trading firms. The Proprietary Liquidity Programme ("**PLP**") was designed to support liquidity-additive trading on LMEselect. This ultimately benefits all users of the market. The PLP offers partial rebates on trading fees for day trading and passive order fills, both of which are characteristics of liquidity additive trading strategies.

In addition, the LME completed a tick size review to ensure that its tick sizes are correctly calibrated in order to promote liquidity and avoid negative behaviour. The conclusion was that no changes were required, however the LME continues to monitor this issue closely, in particular in the context of its upcoming new trading platform, which will allow for a more complex configuration of tick sizes.

2.2.2 Trading and booking structure

The 2017 Strategic Pathway aimed to deliver convergence between the on-exchange and OTC (dealer-to-client) spaces by providing a range of client execution and clearing opportunities.

In November 2018, the LME launched implied pricing on LMEselect for base metals. This functionality enables orders in the liquid 3-month contract to combine with orders in the 3-month to 3rd Wednesday carry and imply an order into the 3rd Wednesday outright contract. This supports the principle of user choice, whereby participants are able to access liquidity at more points on the curve that may suit their needs. Implied 3rd Wednesday volume has grown significantly, with 2020 full year volumes up 87% compared to 2019.

The LME also successfully completed an electronic closing price trial from 18 March 2019 to 18 June 2019. During this period the nickel 3-month closing price was established using a volume weighted average price ("**VWAP**"), and trade-at-settlement ("**TAS**") functionality was introduced to support risk management. The data from the trial period showed broader direct participation in the price discovery process and some users also highlighted the significant transparency benefits. However, other users highlighted challenges around guaranteeing Closing Price execution, and viewed any move towards electronic pricing as challenging the long term viability of Ring trading businesses. The LME's decision was to not make permanent changes at that time but to continue to monitor the performance of Closing Prices and consider future development of its pricing processes, as appropriate. The knowledge, experience and system changes required for the electronic closing price trial were crucial in the success of electronic pricing during the temporary Ring suspension due to COVID-19.

The LME assessed the potential opportunity to introduce a dealer-to-client platform and an optional T2 booking model; however, in both cases due to market feedback decided not to proceed at that time. Notwithstanding this, the LME will continue to monitor these aspects.

2.2.3 Clearing structure

The 2017 Strategic Pathway intended to enhance the efficiency of clearing by optimising margin methodology and providing best-in-class tools for the efficient mobilisation of assets.

The LME has begun planning for the delivery of a custom-designed VaR methodology to calculate initial margin for the LME market. This has the potential for increased margin efficiency and has been well-received by members. Two working groups, covering the methodology and implementation, were formed and have contributed to the initial formative stages of the project. While the implementation of VaR methodology is likely to be delivered later than originally planned – as a result of the COVID-19 impact on IT planning for both the LME and market participants – the LME remains committed to this delivery. Continued market engagement and feedback will be crucial in defining the timelines for implementation and ensuring a smooth transition of margining approaches.

As part of the 2017 review, the LME determined to maintain the discounted contingent variation margin model but continues to assess the benefits and risks of moving towards a standardised realised variation margin model, similar to that which is in use on the majority of other global derivatives markets.

The monthly average futures ("**MAF**") contract offering was enhanced with the launch of additional 2nd business day prompt dates that align with the most frequently used settlement mechanism in floating averaging trades.

The LME has continued to support its warrants as collateral service which allows members to optimise assets on their balance sheet by pledging warrants as collateral against their margin requirements. A number of notable enhancements have been introduced in this area to improve the efficiency of the service including: a cap on fees for transferring warrants; only charging accommodation fees on encumbered warrants; and endorsing warrants on behalf of members when required.

2.2.4 Delivery and physical structure

The 2017 Strategic Pathway undertook to continue an ongoing review of physical market structure to ensure it continues to represent best practice for physical market infrastructure, storage and logistics.

To this end, in March 2019 the LME issued a discussion paper outlining a number of proposals for possible reforms to the LME warehouse network arrangements. The implementation of these reforms is now complete.

As part of these reforms, off-warrant stock reporting was successfully delivered as the first step in providing greater transparency of global metal availability. The monthly summary statistics, first published in July 2020, have started to be referenced in the media.

The LME issued a discussion paper in July 2020 regarding the potential to dematerialise (or, where required, immobilise) LME warrants, move to an electronic warranting process and perform the role of depository itself. This paper received positive feedback from the market, the LME continues working to deliver these changes which will go live in H1 2021.

Despite the oversupplied market conditions for much of 2020, there was no sign of significant structural queues developing in LME warehouses suggesting a positive impact of the broader warehouse reform to date.

2.2.5 Membership

The decision from 2017 Strategic Pathway was to not significantly change the structure of LME membership, but to lower barriers to entry by providing fairer access for all.

As outlined in the 2017 Strategic Pathway, the LME regards introducing brokers as crucial for the development and maintenance of liquidity in new and established contracts. In November 2018, the LME introduced a new Registered Intermediating Broker ("**RIB**") membership category and developed a new GUI screen to allow RIBs to enter trades. This new trade category has two tiers. Tier 2 RIB membership is specifically designed to lower the barrier to entry for RIBs looking to promote liquidity in new and less liquid LME products, and has no B share requirement. In contrast, Tier 1 RIB membership allows RIBs to broker all existing LME products and has the same B share requirement as Category 4 membership. There are currently eight registered RIB members with a combined average daily volume ("**ADV**") of 1,480 lots in 2020.

On 8 July 2019 the LME delivered a new electronic matched bargain facility to enable existing and prospective members to trade B shares. This lowers the barrier to entry for prospective members looking to source B shares, while also supporting price transparency and improving liquidity for existing B shareholders.

2.2.6 Volumes, competition, fees and growth

The 2017 Strategic Pathway sought to maximise trading volumes by delivering a revised fee schedule and new products and services.

To this end the LME introduced additional short-dated and medium-dated carry discounts, with a larger discount for those trades executed transparently on LMEselect or the Ring. The LME also successfully introduced the Financial OTC Booking Fee in order to ensure fairness between those members servicing clients using an LME client contract and those booking trades OTC. These changes incentivise participation in the transparent central market, which improves liquidity for all market participants.

The LME also launched new contracts, including in March 2019 two new cash settled hot-rolled coil contracts were added to the existing suite of scrap and rebar contracts. Ferrous volumes continued to grow in 2020 despite challenging market conditions with ADV up 10% compared to 2019.

2.3 External changes over the past three years

The move towards greater transparency in financial markets has continued and is more important than ever. Transparency is a key facet in ensuring fairness in the LME market and is crucial in maximising trading efficiency for participants by increasing available liquidity and participation in LME markets. There is a clear regulatory direction of travel towards greater transparency, demonstrated by the focus from regulators on increased pre-trade and post-trade transparency requirements. This has led to the new pre-trade transparency solution that the LME has recently delivered to enhance transparency in the inter-office market.

There has also been an increased focus from banks on the cost of capital. This has been driven both by regulation on capital requirements and by shareholder demands for better capital discipline. In some notable cases, the resulting business restructuring has led to large banks exiting the commodities space entirely. It is therefore important that, where possible, the LME considers where opportunities may exist to reduce the capital costs of both accessing and trading on its market to maximise participation for the benefit of the market as a whole. The continuing use of the discounted contingent variation margin methodology, for the LME's core contracts, is an area where such reassessment is underway. This has led to a re-examination of a potential move towards the more capital efficient realised variation margin model.

The other key trend has been the continued move towards digitisation. Due to their complexity, commodities markets have historically lagged other asset classes in this regard and have therefore seen significant progress with a number of new initiatives in this space in recent years. There has been a focus from LME members on straight through processing and many have continued to develop and enhance the electronic platforms that they offer to clients, as well as their automated execution capabilities. In addition, the physical market has also embraced digitisation with a number of digital metals trading solutions launching, along with a focus on utilising digital solutions for security, provenance and custody of commodities.

Most recently, the COVID-19 pandemic has both highlighted, and somewhat forced, the need to shift towards new ways of working and to modernise existing processes. The temporary suspension of the LME Ring has shown electronic pricing works for establishing the LME prices. Electronic pricing has led to broader direct participation and increased volume during the price discovery periods.

Despite the notable market structure changes made since the 2017 Strategic Pathway was published, and in the context of the broader focus on transparency, capital costs and digitisation, there remain some areas of the LME market structure which may benefit from further evolution for the benefit of the market as a whole and in light of the LME's strategic principles. The purpose of this Discussion Paper is therefore to highlight these areas and seek views from the market on potential market structure changes.

2.4 Market conduct

The LME is committed to maintaining the highest regulatory standards and continued compliance with its obligation to operate a fair, transparent and orderly market. These features lead to a better market for participants and very much align with the LME's strategic principles. As such, the LME considers part of its responsibility to lie in the constant re-evaluation of the operation and dynamics of the metals market – which embodies a continually evolving ecosystem. Therefore, any review of the market structure of the LME must also consider any existing (or potentially existing) issues of market conduct that arise as a result of the LME structure, as well as the potential implications of structural change on conduct issues.

The market conduct matters included in this paper do not stem from matters considered in the 2017 Strategic Pathway, but rather from the discussions held by the LME market conduct working group, set up in summer 2020, as part of the LME's continuing work on conduct and compliance in the metals market. That working group considered a number of potential issues that may occur on the LME market. Those discussions made clear that such issues do not exist independently, but rather coexist as part of the structural functioning of the LME market. Therefore, by considering issues of market conduct alongside broader considerations of market structure, the LME will have the opportunity to assess and identify the genesis of any market conduct issues as well as introducing necessary fundamental changes which will prevent the occurrence or prevalence of such concerns.

3 Strategic principles of market structure

Summary

- **In the 2017 Strategic Pathway, the LME identified four key strategic principles to guide how it would operate and evolve its market: (i) serve the physical market, (ii) ensure fairness, (iii) increase user choice, and (iv) maximise trading efficiency.**
- **The LME believes, following re-examination, that these strategic principles continue to provide an appropriate lens through which to view any potential future changes to its market structure.**

In the 2017 Strategic Pathway, the LME identified four key strategic principles to guide the future development of its market. It is appropriate that these principles are re-examined to ensure their continued relevance, especially in light of LME market structure evolution and other changes since 2017.

As explored below, the LME is of the view that these principles remain highly relevant when considering the LME's market structure. As such, they are an important lens through which the LME will assess its market structure and any potential changes thereto. It is worth noting, however, that the principles are not considered in isolation, but are the key factors in evaluating the impact of potential market structure changes.

3.1 Serve the physical market

The core mission of the LME is to provide pricing, risk management, and terminal market services to the global physical metals industry.

This principle remains a core pillar within the LME's strategic direction. Ensuring that the LME's market structure appropriately provides for the physical market's needs is fundamental to ensuring that the LME remains the metals market of choice for all participants. The physical market linkage ensures that LME prices appropriately reflect real world supply and demand, and leads to the broad ecosystem desired by all LME participants.

Ensuring that the LME's market structure serves the physical market does not mean that it should not evolve over time. Many physical participants are themselves proponents for evolution in various aspects of LME market structure in order to ensure LME markets continue to deliver the best possible solutions for the physical market.

3.2 Ensure fairness

Fairness lies at the heart of any well-functioning market structure. The LME has regulatory and legal responsibilities to operate in a fair and non-discriminatory manner, but the LME believes that the value of fairness extends beyond pure regulatory obligations, and interacts more deeply with the nature of the market which the LME seeks to operate.

A key element of fairness is in respect of market and information access. Beyond its core regulatory responsibility of ensuring fair and non-discriminatory access (and, equally, its responsibilities to only admit appropriate participants), the LME considers that the value of its market is maximised by allowing the broadest possible range of participants to hedge and invest, and ensuring that all those participants have fair access to information.

This principle does not simply mean having a technically fair market structure rule set, where all participants are treated equally, but also having a market structure which more practically leads to participants having equal access to information and liquidity, among other things. While it may never be possible to have perfect equality among participants in all respects (as each participant's situation and desired usage of the LME are not identical), the LME should have a market structure that does not systemically advantage one participant group over another, and generally allows participants to operate on the LME on an equal footing.

3.3 Increase user choice

It is a natural feature of any organised market that certain rules must be agreed and adhered to by all participants, even though some of those participants may prefer that the rules were formulated in a different way. That said, the LME recognises the importance of ensuring that its rules facilitate different users to choose how they operate on its market within a common framework of rules that apply equally and fairly to all.

In adopting a "user choice" model, the LME sought to provide a market structure that would allow its participants to trade in the manner that was best suited to them. Some participants are well served by the historic market structure operated at the LME. For example, the daily prompt date structure (and particularly the Official Cash Price) serves the needs of the physical market, but does not preclude any participant from choosing to trade the monthly 3rd Wednesday contracts or the 3-month contract. Similarly, the inter-office trading structure does not preclude participants from choosing to trade electronically on LMEselect.

The LME continues to view the user choice principle as an important way in which the LME caters to the varied needs and preferences of its users, rather than providing a model that forces all participants to trade in the same way. However, the LME is also clear that this scope for difference built into its market must necessarily be within a common structure, applicable to all and providing for the basic requirements that participants are expected to meet, in order to ensure an orderly and efficient market. The LME believes it should ensure that its market structure is suitable to meet the varied needs and preferences of its users rather than provide a model that forces all participants to trade in the same manner.

3.4 Maximise trading efficiency

Once a participant has gained access to the LME, it is in the mutual interests of the participant, the LME and the broader market that the participant be able to trade as extensively as they wish, unencumbered (as far as possible) by the frictional costs of trading. Every time that a market participant chooses not to execute an otherwise economically-rational hedging or investment trade due to the frictional costs of that trade, the market as a whole is poorer. Such frictional costs can take many forms, dependent on the nature of the underlying participant; however, the most commonly cited frictional costs are in respect of:

- **Bid-offer spread.** While the LME's market is highly liquid for its core contracts and dates (e.g. three month), certain other dates may be less liquid. The LME view is that liquidity can be added in partnership with members and end users, reducing bid-offer spreads and decreasing the cost to trade for participants.
- **Fees (both LME and broker).** The LME is mindful of the importance of ensuring that fees are proportional to the economic benefit achieved from the trade; to the extent that fees are misaligned on this metric, then the frictional costs exerted by the fees become significant.
- **Operational processing costs.** Participants transacting on the LME, as with any market, face an operational processing cost associated with the execution of such trades. In some circumstances, certain specific features of the LME's market (compared to other, more standardised markets) may add additional processing burden, further increasing such frictional costs.
- **Margin**. The need to post initial margin, and the mechanism for posting and receiving variation margin, are very significant factors in the frictional cost of trading.

3.5 Relationship between the strategic principles

None of the principles outlined above are themselves absolute, and instead must often be balanced against each other (and other relevant factors) when assessing potential proposals for market structure evolution. Accordingly, serving the physical market, trading efficiency, user choice, and ensuring fairness should all be considered closely together, and any compromises between them balanced for the benefit of the market as a whole.

It is possible that certain individual proposed changes to market structure (or lack thereof) may deliver or enhance one principle at the expense of another, or have a differential impact across different stakeholder groups. For example, increasing user choice in one area may have the effect of reducing trading efficiency. When assessing any proposed change to market structure, the LME considers whether and to what extent the proposal delivers or enhances each of these principles, considering them together. It may also consider the cumulative impact of a set of proposals, to assess how the impact of one proposed change is potentially complemented (or offset) by others.

In formulating the proposals set out in this Discussion Paper, the LME has considered each of the principles, and undertaken an analysis of the impact of the proposals on various market participants. The LME is of the opinion that the changes proposed in this Discussion Paper represent a benefit to the market as a whole and would enhance the LME's overall fulfilment of the above principles.

LME position

- **Following the re-examination of these strategic principles, the LME believes they remain relevant in respect of potential future market structure changes.**
- **The principles are not absolute and must instead be balanced against each other (and other relevant factors) when assessing potential proposals for market structure evolution.**
- **The LME believes that proposals for market structure evolution should be assessed according to the extent to which they benefit the market as a whole and enhance the LME's overall fulfilment of the strategic principles.**

Discussion questions

1) **Do you agree that the LME's strategic principles continue to provide an appropriate lens through which to view the future evolution of its market structure?**

4 The Ring and reference prices

Summary

- **In order to ensure that any future pricing methodology is as robust as possible, a number of factors should be considered, including most significantly (i) access for participants, (ii) transparency, and (iii) trading volume.**
- **The Ring was temporarily closed in March 2020 due to COVID-19. As a result, the usual pricing processes were carried out using electronic trading data from LMEselect.**
- **The LME is pleased with how pricing has worked in the electronic venue with the pricing process seeing consistently high volumes, greater transparency, and more participants with direct access.**
- **Following COVID-19 and the temporary closure of the Ring, the LME wishes the market to consider the case for a revised pricing methodology and venue structure.**

Open outcry trading in the Ring has stood at the heart of LME trading since its inception in 1877, and in fact predates the LME itself. In the early 19th century the Jerusalem Coffee House in London became the favoured location of the metals trading community. A merchant with metal to sell would draw a circle in sawdust on the floor, and those wishing to trade would assemble around the circle.

The LME is incredibly proud of the Ring as a core part of its history, and that Ring trading has evolved over the years to continually meet the needs of participants. However, the LME must also consider the appropriate structure of its markets going forwards. It would be inappropriate not to consider any part of the LME's structure for evolution, solely because of its history and tradition.

The Ring is a trading venue where it is possible to conduct most LME business, should participants choose to do so. However, over time participants have moved to using LMEselect as the primary venue for trading outright 3-month contracts, and the majority of carry (also known as calendar spread) trading throughout the day happens between LMEselect and the inter-office market. Trading on the Ring has become focused on the two key price establishment periods for LME markets: the Official Prices established around lunchtime (and in particular the Official Cash Price) which are often used in physical supply contracts, and the Closing Prices established at the end of the day, which are used to margin LME futures and participants generally use to value their portfolios.

As such, any discussion about the Ring and consideration of its future is inevitably also a conversation about pricing in general, and the merits of various pricing approaches.

Given the shift away from open outcry trading on peer markets over recent decades (and the closure of the majority of open outcry floors), and the fact the LME itself has seen a significant shift towards electronic trading since the launch of LMEselect, it is only natural that some participants question the future of the Ring. The LME considers that this is the appropriate time to review the pricing processes undertaken by the LME, the temporary Ring suspension driven by COVID-19, the future of pricing at the LME, and the Ring itself.

It is important to highlight that the LME remains committed to the daily date structure, which is important in serving the needs of the physical market. The LME sees the considerations of the future of the Ring and reference prices within this Discussion Paper as compatible with the daily date structure.

4.1 The challenges of pricing

The process for establishing any reference price always sees a tension between competing interests, both in terms of the individual price established, and the pricing process which is used. For any single pricing event, some participants would benefit from a higher price, and others would prefer a lower price. When considering the process, different methodologies are likely to be preferred by different participants depending on their trading style, among other factors.

As such, it is unlikely for it to be possible to have a pricing process which perfectly satisfies all participants at all times, but LME pricing processes must strive to be robust, reliable, fair and transparent. There are many considerations which must be taken into account when assessing a pricing process, in particular to ensure that it meets the needs of participants in the market. These considerations will often overlap with the LME's strategic principles, which form part of the assessment process. However, the LME believes that the factors detailed below represent the key considerations in optimising a pricing process for the benefit of the market as a whole.

Access for participants – a pricing process should have fair and equal access for any participant who wants to contribute to this process. It is the LME's belief that a pricing process is improved by having as broad a range of participants as possible contributing to the process. This is not to say that all participants need to contribute directly, but consideration should be given to the ease with which different participants can engage with the pricing process. Clear and effective market surveillance of all participants remains of utmost importance, and is made easier in an electronic market where all participant actions are clearly recorded and can be subject to systematic analysis.

Transparency – any pricing methodology should itself be transparent and allow all participants to understand how prices are established. This enables participants to determine how to engage with the process in order to achieve their desired outcome (such as targeting orders against a reference price). Similarly, consideration should be given to the transparency of data which contributes to the pricing process. Maximum transparency of data into the process promotes trust in the prices derived, allows participants to respond to price activity and adds to the robustness of the reference prices.

Volume – in general, a pricing process should capture as much relevant volume as possible to ensure it is representative and reliable. This is intrinsically related to liquidity. In general, a pricing process should draw on activity from the most liquid venues for the instruments being priced.

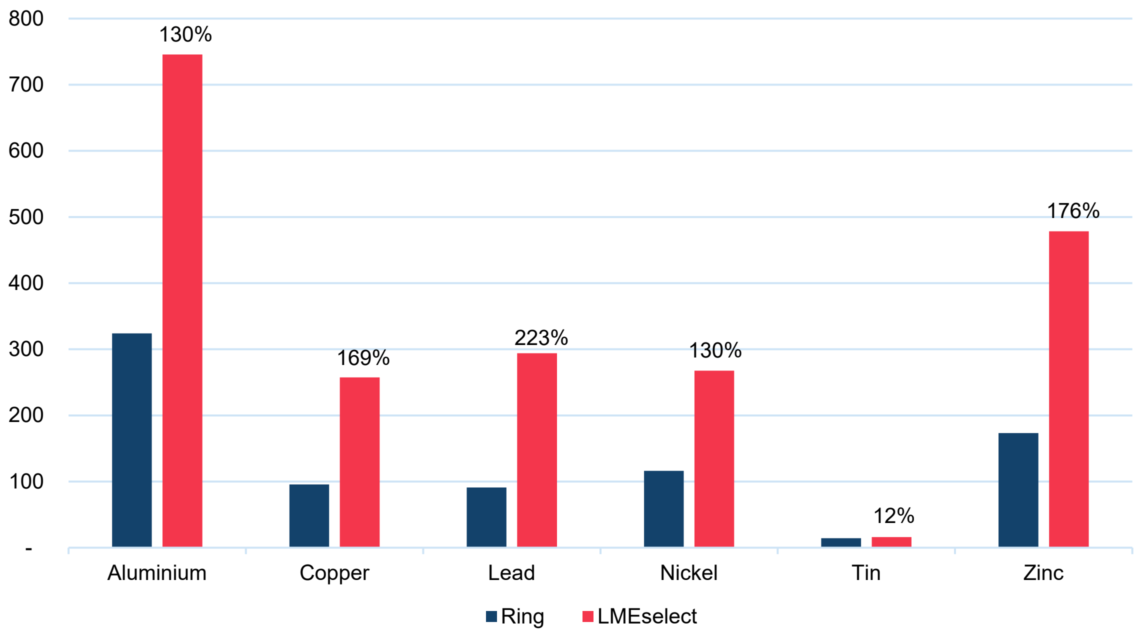
4.2 Temporary Ring suspension

In March 2020, the LME took the decision to temporarily suspend Ring trading. This decision took into account relevant advice from the UK Government, with the key objectives of protecting the health and safety of LME staff and the staff of Category 1 members, and in order to prevent the spread of COVID-19. With the temporary suspension, the pricing processes normally undertaken on the Ring migrated to using electronic trading data generated from LMEselect (in line with the LME's existing pricing methodology, which specifies using electronic data should the Ring not be available). The LME is extremely grateful for the efforts of all participants, and in particular its Category 1 members, in managing the transition from Ring pricing to electronic pricing in the difficult circumstance surrounding the temporary suspension.

The LME has clearly stated in communication with participants that it will not use the temporary Ring suspension as a way to permanently close the Ring by stealth. The LME has continued to work with Category 1 members, and the User Committee, to identify the criteria for returning to the Ring, and ensuring such a return can be done as safely as possible. In October 2020 the LME set up a working group of User Committee and Category 1 participants to consider potential short-term amendments to optimise the pricing process and to discuss plans for returning to the Ring – and these near-term considerations are ongoing.

Longer term, given the Ring has now been suspended for more than nine months, the LME feels it is appropriate to review the information gained from the temporary suspension, and consider the appropriate pricing methodology and venue structure for LME markets for the future. While information gained from the Ring suspension, driven by COVID-19, will be taken into account when making any decision, the LME wishes to be clear that the decision will be taken considering market evolution as a whole irrespective of the current suspension driven by COVID-19.

In general, the LME is pleased with how pricing has worked in the electronic venue. Volumes directly contributing to the reference prices have been consistently high, and significantly higher than when these reference prices are discovered in the Ring (see figure 1). The open nature of electronic trading has also meant that the number of participants with direct access to the pricing venue has increased significantly, and this has been shown in the number of direct participants trading during the various pricing windows.



Ring volumes for period 23 Sep 2019 to 20 Mar 2020 (127 days), the period after kerb was extended
LMEselect volumes for period 12 Jun 2020 to 9 Dec 2020 (127 days)

Figure 1: ADV of 3-month contracts during Closing Price window

The LME implemented a VWAP of all trades within a pricing window (subject to a minimum volume requirement, and rounded to the nearest tick for the contract) as the methodology to establish the outright Cash and 3-month Official Prices, and the 3-month Closing Price. This methodology seems to be well understood by participants, and has led to reliable, robust pricing. In fact, the only suggestions the LME has received to improve this process are: reducing the minimum volume requirements (so that the VWAP is used more regularly), and making the rounding process more granular so the price is established closer to the exact VWAP.

The prices of all other prompt dates are then established with the same pricing methodology as used in the Ring. Some questions have been raised regarding this methodology when applied to electronic prices. Some participants have highlighted the impact of conflicting orders or trades making it difficult for the forward curve to fully reflect all inputs. In particular they have felt that carry pricing has been more volatile during the period of Ring suspension, and believe this may have impacted carry liquidity. Other participants have expressed the view that carry volatility has been driven by physical market supply and demand changes, and that carry pricing has been no more challenging during the period of Ring suspension.

The LME has continued to operate its normal objection process during the period of electronic pricing and has given all formal objections and informal comments due attention and consideration.

As mentioned, the LME has also convened a working group of participants to discuss both the plans for returning to the Ring, and the pricing challenges that have been raised. The LME's assessment is that the pricing challenges raised are broadly the same as those faced when pricing in the Ring, but with a significant increase in data available from electronic trading, and an increase in transparency as all participants have full access to all order and trade data. These factors have led to an increased likelihood of data conflicts, and made it more likely that participants will be aware of the conflicts, and can clearly evidence where the established reference prices may not have reflected their view of prices at the time. This clearly demonstrates the value of increased data transparency. The LME is of the view that the current pricing methodology using electronic data input is no less reliable or representative than the same pricing methodology applied to the Ring.

Even if the increase in data and transparency leads to more instances of pricing conflicts, and more clear evidence when conflicts do arise, this does not mean that a decrease in data input into pricing, nor a decrease in transparency would be positive for the market. It does, however, show that further evolution of the specific pricing calculations should be considered in order to reflect all of the additional available data and to give participants more certainty on exactly how the data will be used to establish reference prices. This type of more deterministic pricing is made possible by using an electronic venue for pricing.

There are a few other important points to note about the temporary Ring suspension, and resultant electronic pricing. Firstly, the LME believes that this period has provided evidence that there is no intrinsic link between Ring trading and the LME's unique date structure, which is so important to physical participants. The date structure has continued to function, and the Cash Price has been discovered each day. Secondly, while the LME is aware of some changes to the availability of guaranteed orders (against either the Official or Closing prices), it understands that in general these changes have been minimal, and have not led to significant disruption to participants.

It is of course important to note that all the impacts seen thus far have been based on a period when the Ring suspension has been temporary. If there was a permanent change to the LME's pricing methodologies, moving from the Ring to the electronic venue, it is possible that there would be some further changes to market behaviour as participants adapted.

Finally, while overall LME volumes over 2020 were around 7% lower than 2019, it is clear that 2020 was a challenging year for many markets, broadly linked to lower risk appetite and lower levels of economic activity, albeit with a few exceptions. The LME's analysis suggests that the decrease in LME volumes is broadly in line with peer commodity markets, which have seen a large range of individual contract performance in volume terms. This analysis does not suggest that the temporary suspension of the Ring has significantly contributed to this overall volume reduction. It should also be noted that any re-opening of the Ring (notwithstanding the outcome of proposals in this Discussion Paper) will necessarily come at a time when social restrictions are relaxing in respect of the global pandemic, which the LME would expect to coincide with an increase in volumes driven by greater economic activity and risk appetite.

When considering certain trading activities which may have been impacted by the Ring suspension (such as carry trading), the LME is of the opinion that the majority of this impact is likely to be the result of market participants having to maintain a temporary business model in an uncertain trading environment (namely, not knowing when the Ring might return) rather than any inherent link between the Ring and carry trading. In the view of the LME, if the electronic pricing processes were to be made permanent, then the certainty of pricing venue provided by this is likely to allow traders to adapt, and remove any uncertainty that might be limiting trading activity.

4.3 The future of pricing at the LME

Given the impact of temporarily moving to an electronic venue for the establishment of the LME's reference prices, and in particular the significant increases in transparency, access for participants and volumes contributing to the pricing process, and in consideration of the LME's strategic principles, the LME believes it would be the right decision to permanently make the electronic market the primary input for pricing purposes.

Making the change permanent would give all participants, and the LME itself, certainty over the future of pricing at the LME. It would then allow all stakeholders to make business decisions with confidence over the future structure, and evolve their businesses how they see fit. The LME proposes to continue to use the current pricing calculation methodology (with the addition of any minor changes driven by the recent working group – which will be communicated to the market in due course) initially to allow for a smooth transition.

However, a shift to using electronic data would also allow for future evolution of the pricing calculation methodology itself, to take account of the additional data and transparency, ensuring that the LME's reference prices are as reliable, robust and relevant as possible for all participants. Should the LME move to using the electronic venue for the establishment of reference prices, it intends to explore such evolution to the pricing calculation methodology, such as having deterministic calculations to establish the shape of forward curves, and will engage with market participants in due course.

4.4 The Ring without price setting

If, after considering the views of participants, the LME does decide to permanently move the pricing process to primarily use data from the electronic venue, it does not necessarily follow that the Ring cannot continue to function as a venue in its own right. Should the unique features of the Ring, as a trading venue, be beneficial to participants for trading particular contracts or structures, it is possible for that to continue. However, if so, the LME may need to consider ways in which to ensure that operating the Ring remains viable in the event of a significant reduction in trading volumes, including, for example, by moving the Ring to an alternative, cheaper location and/or changes to fee structures for Ring trading members.

From previous discussions with Category 1 members, the LME understands that it is unlikely that there would be enough interest in maintaining Ring trading in the absence of Official Prices and Closing Prices in order for it to continue to operate, but would value further feedback on this matter.

As such, the LME also currently believes that, should a shift be made to permanently use the electronic venue for pricing activities as proposed, the LME should also permanently close the Ring. Given the present uncertainty as to whether the Ring will reopen in the near future due to the ongoing impact of COVID-19, the LME will need to consider the appropriate course of action to take based on the outcome of this consultation and the situation at the time of its decision. The LME would welcome feedback from market participants on the timing of any closure of the Ring and the impact that may have on participants' transitional arrangements.

The LME recognises that a move to electronic pricing, and/or the closure of the Ring may have an impact on the competitive position of Category 1 members and could change the nature of the relationship between Category 1 members, other market participants and the LME itself. It is the LME's current view that, notwithstanding this potential impact, the move to electronic pricing would be in the best interests of the market as a whole. However, the LME notes that, subject to the outcome of these proposals, further changes in the terms of Category 1 membership in due course would likely be necessary (including the potential outcome of rationalising the Category 1 and Category 2 membership segments), and is a matter on which the LME would engage market participants in the future where appropriate.

One additional area of consideration is that the temporary Ring suspension has shown that, irrespective of the future of the Ring and pricing processes, it is not necessary for the LME to retain a secondary back-up Ring for disaster recovery purposes. The electronic market pricing process as currently used can instead be used in any future disaster recovery scenario if the Ring were to be retained. As such, aside from any decision on permanently changing pricing processes or the future of the Ring, the LME considers it is appropriate to look to rationalise its physical Ring locations in future by operating only a primary Ring (if any).

4.5 Trade-at-settlement contracts

On some peer futures markets, trade-at-settlement ("**TAS**") contracts form an important part of the market structure concerning pricing. TAS contracts allow participants to submit orders and execute trades against an unknown reference price which will be established later that day. TAS order books trade at positive and negative differentials to that unknown price. They allow participants to hedge their risk against reference prices, locking in a known differential.

In the LME ecosystem, this function is generally provided by members guaranteeing orders against both the Official Prices, and the Closing Prices. Some participants have suggested that introducing some TAS contracts would provide additional liquidity for this type of trading. When the LME undertook its electronic Closing Price trial in nickel in 2019, it launched a TAS contract against the 3-month nickel Closing Price. While this contract did see liquidity during the trial, the LME did not roll out any further TAS contracts.

Given the continued availability of guaranteed orders during the temporary Ring suspension, the LME believes that additional TAS contracts are not necessary even if the change to electronic pricing is made permanent, and that this type of service is best provided by members directly to their clients. However, should there be any ongoing concern from participants regarding their ability to execute trades against reference prices, then the LME has already undertaken much of the preparatory work necessary to launch further TAS contracts.

4.6 Market conduct on the Ring

In view of the current discussion on the future of pricing activity at the LME and the potential to permanently move to the electronic venue and close the Ring, it may not be necessary to consider any specific market conduct matters arising from the Ring. However, the LME welcomes views from any participants who feel that this is an area that should be further reviewed.

The LME notes that changes to the pricing process, and the resulting changes to the ways that participants interact with the process, may require evolution of both the market conduct and market surveillance approach taken by LME members and the LME itself. The LME welcomes any opinions on the market conduct impact of a permanent closure of the Ring and a move of the pricing process to the electronic venue.

LME position

- **The LME feels it is now time to consider the case for a permanent move to an electronic pricing structure and closure of the Ring. This could give all participants certainty over the future of pricing and allow all stakeholders to make business decisions with confidence.**
- **Any decision to permanently move to electronic pricing and/or close the Ring will be based on the potential long-term benefits to the market of this pricing evolution, irrespective of the current Ring suspension.**

- **The LME is of the opinion that additional TAS contracts are not necessary at this time, as this type of service is provided by members directly to their clients.**

Intended benefits and potential challenges

Benefits

- **Increased direct access to the reference pricing process, with fair access for all participants.**
- **Increased transparency of orders and trades contributing to reference prices, and increased transparency of the pricing methodology.**
- **Opportunity to evolve the pricing processes over time in order to further improve pricing.**

Challenges

- **The competitive position of Category 1 members may be impacted by the move away from the Ring, which could change the nature of the relationship between Category 1 members, other market participants and the LME itself.**
- **Some participants may need time to adapt their business models as the changes become permanent.**
- **The ability of clients to have their orders guaranteed against Official Prices or Closing Prices may be impacted by changes to trading practices.**
- **As with the Ring, further evolution to the electronic pricing methodology will be important in order to ensure it is as robust and representative as possible, serving the needs of the industry.**

Discussion questions

2) **Do you agree with the assessment of the general challenges of pricing, and factors to assess when considering a pricing process?**
3) **Do you agree with the review of these factors when considering the temporary Ring suspension and move to electronic pricing? Are there any other factors you think the LME should consider?**
4) **Do you agree that a permanent move to using data from the electronic venue as the primary input for pricing processes should be confirmed?**
5) **Should a move to electronic pricing be made permanent, do you agree that the Ring should be closed? Do you have any comments on the timing of any closure of the Ring?**
6) **Aside from any decision over the permanent closure of the primary Ring, do you support closure of the secondary Ring, and the use of electronic pricing methodology in a disaster recovery scenario?**
7) **Do you agree that further TAS contracts are not necessary at this time?**
8) **Do you agree with the LME's position on market conduct considerations around Ring trading? Do you have any opinions from a market conduct perspective about a permanent closure of the Ring and move to electronic pricing?**
9) **Are there any other factors which you think it is important for the LME to consider in relation to the Ring and reference prices?**

5 Enhancing liquidity

Summary

- **This section considers the LME's available execution venues, how their structure impacts liquidity, and whether any evolution is possible in order to improve available liquidity.**
- **Improvements to liquidity and transparency in the member-to-member market will likely have a knock-on positive impact for clients, who can access this liquidity by making their own decisions on how they would like to execute a trade.**
- **Trades in a central electronic venue exhibit the maximum amount of transparency and fairness, as all participants can access the exact same data on available prices at the same time. Transparency itself also enhances liquidity, maximising efficiency and trading activity. However, some participants – particularly clients – may still prefer execution via a voice transaction.**
- **Potential methods to incentivise member-to-member electronic trading include (i) increased trading fees for member-to-member inter-office transactions, (ii) implementation of block trading rules, (iii) the introduction of the "enhanced transparency cross", (iv) reduced electronic trading fees, and (v) the introduction of a specific liquidity provider programme to increase liquidity.**

One of the most important aspects of any organised market is the liquidity available to the participants. The available liquidity, and changes to that liquidity, are a function of many factors including: the natural amount of business to be executed in the market; the rules and structure of the market; incentives to provide liquidity; and how these factors influence the behaviour of all market participants.

It is appropriate to consider the liquidity available for participants within LME markets, how the LME's market structure influences this liquidity, and whether any market structure evolution is possible to increase the available liquidity.

The LME's strategic principles are of primary importance when considering the market structure and any potential evolution. The LME's market structure must serve the physical market's needs, and provide a fair, efficient market for users, with consideration for giving market participants choices regarding how they interact with the market.

The two major topics that often arise in relation to market evolution and potential enhancements to liquidity are the date structure and the LME's execution venues.

The LME does not believe at this time that any evolution to the date structure would appropriately meet its strategic principles, and in particular thinks it is important to retain the daily date structure in order to serve the physical market. This is not to say that evolution of the date structure will never be beneficial; however, any future considerations will need to ensure the physical market's needs are met.

The LME does believe that it is worth considering the available execution venues, how their structure impacts liquidity, and whether any evolution is possible in order to improve available liquidity.

5.1 Value of transparency

The concept of transparency is a very important one when considering liquidity. Any participant can only be aware of the executable prices available to them by way of a form of transparency (even if it is just by being given an individual quote). Further, increases in transparency serve to give confidence in the prices shown –

at one end of the spectrum by allowing participants to compare bilateral prices, and at the other by having a single market place with all prices being transparent to all participants. Increases in transparency assist with the decision-making process in trading for all participants.

Transparent prices in a central venue also encourage increased competition in liquidity provision. Multiple liquidity providers feeding into a single transparent central venue will have to compete to show the best price at any given time. This competition allows for greater trading efficiency – stemming from a decrease in bid-offer spreads – which increases trading activity and in turn further enhances liquidity.

It should be noted that there exists something of a “free-rider-problem” within transparency. For any individual participant’s actions, it may be beneficial for there to be a lower level of transparency in order for that participant to be able to transact without any other participant being aware of their actions. However, there is a benefit to the market as a whole from transparency, such as giving all participants confidence in the liquidity and prices they see, and giving equal access to information. As such, it is important to have a clear set of market rules governing transparency, to ensure the right balance is struck. Where trades are able to be conducted away from the transparent central venue, there should be appropriate incentives to direct the business to the central venue. This should align to the increased value the market as a whole derives from that transparency.

At one end of the spectrum, some futures markets operate with almost total transparency, where it is not possible for any participant to conduct a transaction outside of a central venue, which is transparent to all. Historically, this central venue was an open outcry trading floor, but in general there has been a migration to electronic trading venues, with a respective increase in transparency. At the other end of the spectrum, there have historically been OTC markets with almost no transparency, with all transactions bilaterally negotiated. Only the parties directly involved in the negotiation are aware of any of the details.

The LME must consider its principles of fairness and efficiency, balanced against user choice, in determining the appropriate market structure and level of transparency in its markets. While of course, at all times adhering to regulatory requirements regarding transparency.

Trades in a central electronic venue exhibit the maximum amount of transparency and fairness. All participants are able to access the exact same data on available prices at the same time. All participants are then equally able to trade on those prices. However, it should be noted that there is still a difference between technical and practical fairness. Some participants have more capability to deal with low latency trading and can react more quickly to information than other participants. That said, this level of discrepancy is lower than in a market where the different participants may have material differences in their access to trading, such as a bilaterally negotiated market.

However, the positive values of a central venue must be considered against the downsides. As mentioned, not all participants are equally able to take full advantage of the benefits of an electronic venue, and some participants may have execution needs which are more easily served via a voice transaction, such as wanting a known single price for a transaction, rather than having to take execution risk themselves. In addition, some trades are less well suited to being traded on a central venue, such as complex or custom structures to meet a participant’s specific needs, or trades in less liquid instruments (or during less liquid times of the day), where the direct interaction between a client and a liquidity provider may be more efficient.

As per the strategic principles, it is important that the market structure provides for the users’ particular choices about how they would like to transact.

5.2 Member-to-member market vs. client-to-member market

When considering the above advantages and disadvantages of a central electronic venue vs. bilaterally negotiated transactions, the LME considers it important to understand the differing needs of participants in its market, and in particular, some general differences between the member-to-member market, and the client-to-member market.

LME members are experienced professional traders with teams of people dedicated to trading, risk management, and the operational processes necessary in order to run a metals trading business. All these departments are likely to be necessary to meet the requirements to become a member of the LME and LME Clear, adhere to the Rules of the Exchange and Clearing House, and meet the associated regulatory requirements. In general, LME members use the inter-office market to trade standardised contracts between each other. By definition, all trades are cleared at LME Clear, and so represent the same credit risk.

Trades between clients and members are somewhat different. There are a huge variety of business models operated by LME clients. There are professional trading companies operating as either “paper traders” or physical merchants (or a combination of both). As has been mentioned, a fundamental part of the LME ecosystem is its physical participants, for whom trading LME contracts is a small but important part of their overall business and is used to manage price risk associated with the production, fabrication, storage and/or usage of metals. These physical participants themselves operate a huge variety of business models, and their needs are equally varied. In general, these clients often trade highly customised contracts to suit their specific needs, and are more likely to want a single known price for larger trades. As such, they are more likely to need the specialist execution services of a member, which can provide liquidity to them, in order to transact. While client contracts on the LME are cleared at LME Clear, the credit risk of a client position is undertaken by the clearing member. As such, there may be additional credit considerations in pricing business for clients.

Given the above factors, and in particular balancing the value of transparency against the various needs of participants, the LME view is that the member-to-member market may benefit from some amount of evolution in order to enhance liquidity for participants, thereby improving efficiency and fairness by incentivising trading in the central electronic market. In the opinion of the LME, the client-to-member market, however, should preserve the current structures at this time.

It is worth noting that improvements to liquidity and transparency in the member-to-member market will likely have a knock-on positive impact for clients, who are equally able to access this liquidity by making their own decisions on how they wish to execute. It should also be noted that clients do not need to self-execute in the electronic market in order to access this available liquidity. Clients are able to interact with their member via voice, and their member can then work on an agency basis in the electronic market, should clients and members wish to act in this manner.

5.3 Incentivising member-to-member electronic trading

There are many methods which the LME could look to employ in order to incentivise electronic trading and enhance market liquidity; however, one of the simplest methods would be to increase trading fees[2] for member-to-member inter-office transactions. Such a fee increase would have to be significant enough to drive trading decisions, but this increased fee could be seen as fairly balancing the lower value provided to the market of a trade which is bilaterally negotiated and executed. Many peer futures markets operate a similar pricing model, where bilaterally negotiated transactions (where they are permitted) are often significantly more expensive

[2] Throughout this document, the LME uses the term “trading fee” to mean the combination of the trading and clearing fee charged by LME and LME Clear.

than an electronic trade in order to promote liquidity in the central limit order book, while allowing larger or more complex transactions to be bilaterally negotiated.

One other method that is a standard feature on most peer futures markets is the implementation of block trading rules. Block rules normally stipulate a trade size below which transactions are only allowed to be executed in the central venue. Block rules also normally give some detail on exactly how trades may be executed, and how quickly these trades must be reported and published to the market. The intention is normally for block rules to allow the benefits of a privately negotiated transaction in certain limited circumstances (eg large trades), while maintaining a level of transparency by prescribing strict reporting requirements.

In general, there is likely to be a balance between these methods. If strict block rules were employed in the member-to-member market then any increase in inter-office fees can be tempered by the fact that some trades will only be able to be done on the electronic venue and so do not need a fee incentive. Similarly, without block rules, it is likely a higher inter-office fee will be needed in order to adequately incentivise electronic trading and have the desired liquidity enhancing impacts.

When considering the needs of all participants, the LME believes that it is likely to be more appropriate to increase fees in the member-to-member inter-office market, in order to incentivise trading in the electronic venue, rather than introducing any form of block rules. This would afford all members absolute choice on how to conduct their trading, taking account of the differences between the venues, and the fee differential. Setting its fee levels is a matter on which the LME does not need to consult participants; however, as any potential changes as proposed are primarily intended to have an impact on how participants operate, the LME would, in this instance, like to give participants the chance to comment on this proposal. In order to ensure participants are able to assess the likely impact, the LME proposes a member-to-member fee increase of around 50% to the current inter-office fees, though the LME reserves the right to amend this, either in implementation of these proposals, or at a later date. Aligned to its view not to evolve the client-to-member market, the LME is of the opinion that it is appropriate not to make any changes to the fee structure for client trades.

5.4 Enhanced transparency cross

It is important that the practicalities of any incentivisation of electronic trading are considered. If a new fee structure is implemented, then it is possible that a member would like to move their trading to the electronic venue, but find it difficult to do so initially as there may not be sufficient liquidity available. This would mean they have no choice but to continue to use the inter-office market, incurring higher trading costs (despite wanting to use the electronic market). This would not result in the desired outcome of enhancing electronic liquidity.

One possible solution seen on peer venues is to have specific rules allowing participants to conduct pre-execution communication on a bilateral basis, and then to transact or “cross” any resulting desired trades in the electronic market. These rules are often referred to as “pre-execution communication” or “crossing” rules.

If the LME were to make the proposed changes to the member-to-member inter-office fee levels, then it considers it would also be important to introduce similar rules. It would intend to introduce rules allowing an “enhanced transparency cross”, where two members are able to communicate ahead of any potential execution, and then cross any desired trade in the electronic market. Members undertaking this enhanced transparency cross would then have the benefit of being able to negotiate on a bilateral basis, while also increasing transparency for the market as a whole, and benefitting from paying the lower electronic trading fees.

It should however be noted that there is no guarantee that the initial parties to the pre-execution communication are the ones that will ultimately transact on the electronic market. It is possible that once the initial order is entered, an alternative liquidity provider fills this order, and thus the initial liquidity provider misses the trade. This is a disadvantage to the initial liquidity provider, but is seen as a positive feature on some markets, as it further encourages liquidity provision in the electronic market.

5.5 Further steps to enhance electronic trading

While the primary intention of any potential increase in member-to-member inter-office fee levels would be to enhance liquidity by increasing transparency, the LME acknowledges that it is likely that not all trades will transfer from the inter-office market to the electronic market. As such, there could be a secondary effect of increasing LME revenues due to the higher inter-office fee levels (however, it is also possible that a wholesale move of inter-office trading to electronic trading would have the reverse impact of decreasing LME revenues, as electronic fees are already below inter-office fees for some transactions).

As the LME is likely to initially see a revenue increase from the proposed changes, this does afford the possibility to make further changes which may reduce LME revenues. While the fee points detailed below are unlikely to require formal consultation, the LME is considering them as a package of changes to enhance liquidity, and it would like to give participants the chance to provide feedback. It is unlikely that the LME will be able to implement all of the changes detailed below (paragraphs 5.5.1 – 5.5.3); therefore, the LME would particularly value participants feedback regarding which changes they feel would be the most effective in enhancing liquidity.

5.5.1 Reducing electronic fees

Alongside the increase in member-to-member inter-office fees, the LME could look to reduce electronic trading fees. The balance of transaction volumes means that the nominal fee reduction for electronic fees would be significantly smaller than the increase to inter-office fees, but could itself lead to increased electronic trading and further enhance liquidity for all participants.

Any change in electronic fees could either be implemented only for member trades, only for client trades, or for both (the more trade types impacted, the smaller the fee decrease possible). From a market structure perspective there are advantages and disadvantages to each approach.

Decreasing only the fees for member electronic trading seems to be a fair trade off against increasing member-to-member inter-office fees. It would also reduce the overall fees paid by clients to trade electronically, as a client electronic trade is made up of 1x member leg, and 2x client legs (driven by the LME's T4 booking model[3]). As such, one of the three legs would see a fee reduction. However, even taking this into account, the change would have the effect of further differentiating member and client fees for electronic trading. Under the LME's fee structure members already have a significantly lower electronic trading fee compared to clients (driven by the T4 booking model) and only lowering the member electronic trading fee would make this advantage even more significant which itself may be seen as reducing fairness.

The LME believes the lower fees afforded to members are an inherent part of the "fairness" of the LME's market structure, by rewarding members who are committed to trading in LME markets. However the 3:1 fee differential resulting from the T4 booking model and the current fee structure is by far the highest differential between member and non-member fees that the LME is aware of when compared to peer venues.

On the other hand, offsetting a potential increase in member-to-member inter-office fees with a lower electronic client fee may seem somewhat incongruous, but it would have the impact of narrowing the differential between member and client fees for electronic trading, and thus increase the overall balance of the fee structure.

[3] As explained in the 2017 Discussion Paper

One approach would be to reduce both member and client fees for electronic trading, which would then not impact the balance of fees for members and clients, but this would likely mean a smaller reduction of each.

5.5.2 Liquidity provider programme

The LME could look to introduce a specific liquidity provider programme intended to increase liquidity in its electronic markets. The LME is of the view that it would be appropriate to target such a liquidity provider programme very specifically at areas that would benefit participants the most.

The LME believes such a programme would be most beneficial for carry trades in the front of the curve, in particular on the contracts that most participants would like to trade, such as the carries between the first four 3rd Wednesday contracts and the 3-month contract. In designing such a programme, the LME would target the existing membership base who are liquidity providers in carry trades, and seek to appropriately incentivise them to transition some of their liquidity provision on to the electronic market.

The LME is of the opinion that members who are able to transition some of their liquidity provision from the inter-office market to the electronic market would then see an overall benefit from a potentially lower electronic fee, and a liquidity provider programme, which would offset the cost of the increased inter-office fee.

Furthermore the LME is of the opinion that potential additional liquidity on 3rd Wednesday contracts resulting from greater involvement of financial and arbitrage participants, when combined with the LME's commitment to retaining the daily date structure, would result in a net increase in liquidity. This would benefit the market overall without removing the ability of the physical market to use the Official Cash Price on a daily basis, and generally conduct business using the daily date structure.

5.5.3 Changing the short-dated carry definition

One other change that the LME could consider is changing the definition of a short-dated carry. Currently, a short-dated carry is defined as a carry trade where the prompt date of both legs is within 15 days of the TOM date (TOM is defined as the next available prompt date from the trading date ie "tomorrow"). Short-dated carries have a particularly low fee level, of around a quarter of the outright trading fee, and around half the medium-dated carry fee (a medium-dated carry is any carry where both prompt dates are within 35 calendar days of each other). The LME could look to expand the definition of a short-dated carry to include any carry trade where the prompt date of both legs is within 15 days of each other, either at any point on the curve, or within a specific number of days from the TOM date (eg up to 15 day carries within the front 60 days).

Such a change would be supportive of the date structure, and further strengthen the LME's offering to the physical market.

5.6 Client-to-member market

While, as stated, the LME believes that market structure evolution, with the aim of enhancing liquidity, should focus on the member-to-member market, and that clients will also benefit from the enhancements to liquidity, the LME could introduce some or all of the described changes into the client-to-member market as well.

The LME could alternatively look at a more nuanced set of changes for the client-to-member market, such as increasing inter-office trading fees or introducing block rules for a subset of the most liquid contracts, ie the 3-month contracts and/or 3rd Wednesday contracts. The LME thinks such changes would likely be overly complex, while not having a significant benefit in terms of enhancing liquidity, compared to the difficulties they could cause clients in adapting to the new rules.

5.7 Dual capacity

"Dual capacity" is used to describe the situation where a trader acts in both a proprietary capacity and undertakes client business at the same time. LME members traditionally operate with dual capacity (though not all LME members currently do), by executing orders on behalf of their clients alongside their proprietary trading, and by offering their clients their proprietary market making liquidity. They are both having to act in their clients' best interest, while themselves potentially having the opposite interest (as a better price to the client is a worse price to the liquidity provider). Notwithstanding any conflict of interest concerns (dealt with below), the LME views dual capacity as an important feature of its markets, allowing members to help their clients access the best possible liquidity.

The LME is of the opinion that the proposed changes to enhance liquidity in this Discussion Paper can operate within the dual capacity model, and the combination would provide the best of both worlds, enhancing liquidity on the central limit order book, while allowing members to add their proprietary liquidity to their clients. As such, the LME believes that no further fundamental changes to dual capacity would be of benefit to the market at this time.

5.8 Market conduct considerations arising from the inter-office market

While the LME is not aware of any fundamental market conduct problems arising from the inter-office market, there are some areas that require specific management by members and are worthy of consideration.

5.8.1 Dual capacity and conflicts of interest

Potential conflicts of interest arise from a trader acting with dual capacity regarding the fair treatment of clients. Members must have processes in place in order to manage any conflicts of interest.

The LME notes that in acting in a dual capacity, members assume a considerable responsibility to demonstrate the fair treatment of their clients. Whilst the regulatory obligation remains with members to satisfy themselves and their clients of the sufficiency of their arrangements, the LME would make certain observations as to the behaviours which it would expect to observe in a dual capacity market. The following represents a non-exhaustive list of such behaviours:

i. There should be a clear understanding between the member and client as to the basis on which execution is being undertaken. In particular, this must address the question as to whether a client order is to be executed against a house market-made price or under an agency model.

ii. Clients should be aware of the fact that the member may be able to hedge the risk arising from a client transaction at a more attractive price than that offered to the client. The LME understands that clients are, in general, satisfied with such a model (as the member is effectively being compensated for taking risk on trade).

iii. The dual capacity model also places responsibilities on clients to make any specific order requirements known to the member at the time the order is placed.

The LME further recognises that certain client execution scenarios may include additional complexities. For example, a member may execute a client order similar to agency basis but while guaranteeing the client that their order will be filled no worse than a specified price (which the member guarantees on a proprietary basis). In this case, it would be necessary for the client to be made aware of the member's execution approach and have clear agreement on what price the client will receive, dependent on the member's fills (rather than the member having discretion on where to fill the client once their hedging trades have been executed).

The LME believes that the enhancements to liquidity and transparency which are proposed in this Discussion Paper will make it easier for members to evidence fair treatment of clients, and does not view any further specific rules as required in order to ensure the highest standards of market conduct, despite the potential conflict of interest arising from the dual capacity model.

5.8.2 The inter-office market and inside information

Trading activity in the inter-office market presents some potential issues from an inside information perspective. One such potential issue relates to the information held by participants between the execution of a trade and its publication to the market. While MiFID II mandates real-time and delayed publication of post-trade data, there nonetheless remains the potential for a scenario whereby market participants hold information that has not yet been published to the market. While the proposals to increase transparency on the inter-office market stand to mitigate this issue within the member-to-member market, this issue will remain, particularly in relation to the member-client market. However, this situation is not unique to the LME inter-office market, and therefore, the LME anticipates that members and clients will already have controls in place to ensure that information arising as a result of privately negotiated transactions is not used for trading purposes, before such data has been made public.

In addition, when acting in a dual capacity, members have information in relation to the proposed activities and trading strategies of their clients that other market participants do not have. As this information is not required or expected to be published to the market, it would not fall within the legal definition of inside information. Again, this is not an issue that is specific to the LME and, as such, the LME understands that members will already have the appropriate systems and controls in place to manage the potential conflict created by the possession of this type of information.

Considering the above, the LME does not feel that any changes are required in order to ensure the highest standards of market conduct in relation to inside information arising from the inter-office market.

LME position

- **The LME's position is that trades in the central electronic venue for the member-to-member market exhibit the maximum amount of transparency, efficiency and fairness, while allowing for increased liquidity.**
- **The LME does not believe it should evolve the date structure, as it understands it to be fundamental to the physical market.**
- **The client-to-member market should preserve the user choice offered by the current venue structure at the LME.**
- **Increasing trading fees for member-to-member inter-office transactions would be a straightforward option to incentivise trading in the electronic market. Alongside this, the LME could look to reduce electronic trading fees.**
- **The introduction of a new "enhanced transparency cross" could help members use the electronic market and increase transparency.**
- **The introduction of a liquidity provider programme could also be considered to help existing members transition some of the liquidity supply to the electronic market.**
- **Members who are able to transition some of their liquidity to the electronic market would benefit from a potentially lower electronic fee, and a liquidity provider programme, which would offset the cost of the increased inter-office fee.**

Intended benefits and potential challenges

<u>Benefits</u>

- **Increased liquidity in the central venue available for all participants.**
- **Increased transparency of pricing driven by more business being transacted electronically.**
- **Retains flexibility to trade inter-office or electronically, and introduces measures to help business transition to the electronic market.**
- **Retains current fees and structure for client-to-member trading.**

<u>Challenges</u>

- **Certain trading practices will become more expensive for members.**
- **Some liquidity providers may end up missing an intended trade when using the enhanced transparency cross mechanism depending on the change in business practices and the trading activity of other market participants.**

Discussion questions

10) **Do you agree with the LME's assessment of the benefits of transparency in the electronic market in paragraph 5.1?**
11) **Do you agree that the LME should look to enhance liquidity in the electronic market by increasing the member-to-member inter-office fee? Do you believe that the proposed 50% increase is enough to change behaviour?**
12) **Do you think that the LME should look to introduce "block rules" for inter-office trades in the member-to-member market?**
13) **If the LME was to increase the member-to-member inter-office trading fee, do you agree it should introduce enhanced transparency cross rules?**
14) **If the LME was to increase the member-to-member inter-office trading fee, do you think the LME should look to offset this fee increase with a reduction to electronic trading fees? If so, should this be done for only member fees, only client fees, or both?**
15) **Should the LME look to introduce a liquidity provider programme focused at helping existing LME members to transition some of the liquidity provision to the electronic market?**
16) **Do you think that the LME should look to change the definition of a short-dated carry as described in paragraph 5.5.3?**
17) **Of the three potential changes described in questions 14), 15), and 16) above, which do you think will be most effective to enhance liquidity?**
18) **Do you think the LME should make any of the described changes in the client-to-member market in addition to the member-to-member market, or any alternative sets of changes?**
19) **Do you agree that the dual capacity model can co-exist with the described enhancements to liquidity, and should not be changed?**
20) **Is there anything else you think the LME should consider regarding enhancing liquidity in its markets?**
21) **Do you agree with the LME's assessment that no further rules are required in order to ensure the highest standards of market conduct relating to the dual capacity model?**
22) **Do you agree with the LME's assessment that no changes are required in order to ensure the highest standards of market conduct relating to inside information in the inter-office market?**

6 Realised variation margin

Summary

- **While the 2017 Strategic Pathway discussions considered a move to a standardised realised variation model ("RVM") margin model for the LME's clearing structure, the contingent variation margin ("CVM") margin model was retained for the time being.**
- **The key benefit of CVM is the ability for some clearing members to use the positive CVM balances of one client to extend credit to another client. However, larger clearing members, financial participants and certain physical clients are less concerned about the issue of credit provision and see CVM as a barrier to market entry.**
- **Given these factors and the regulatory costs associated with CVM, the LME believes the RVM margin model should be considered once more.**
- **The LME notes that while RVM may provide benefits – including trading efficiency, standardising the market structure, reducing costs and removing barriers to market entry – this has to be balanced against the potential consequences, particularly regarding the risk of impacting the provision of credit lines and the risk of business moving OTC.**

The 2017 Discussion Paper considered a review of the margin methodology and a potential move to realised variation margin ("**RVM**") from the discounted contingent variation margin ("**CVM**" or "**DCVM**"). The LME decided to retain the CVM model due to its role in providing credit to the market. However, a majority of respondents in 2017 favoured a move to RVM and the 2017 Strategic Pathway stated that this margin methodology would be kept under close review in case a future change is required due to factors such as a result of exogenous pressures or a changing risk assessment.

Over the last three years, the focus on capital costs and returns at large banks has intensified. In some cases, resulting business optimisation and restructuring has led to them selling parts of their commodities businesses or even exiting the commodities space entirely. The DCVM model may result in increased regulatory capital costs as clearing members have variation margin balances held at the clearing house (as positive variation margin is not paid out). The LME is also aware that the accounting treatment at some entities may further increase the regulatory capital costs associated with DCVM contracts. The regulatory capital costs associated with DCVM therefore adds weight to the arguments for moving to RVM. The changing external landscape has necessitated a reassessment of the LME margin methodology. It should be noted that no change is being considered in respect of the ability of clearing members to net initial margin in a net omnibus segregated account ("**NOSA**"), this being a key component in credit provision to their clients. Furthermore, any change is purely focused on the margin methodology, not to the daily date structure, which the LME considers important in serving the physical market.

Aside from the current consideration of variation margin methodology the LME continues to work on implementing a VaR initial margin methodology. The LME will also consider other developments to its clearing service, such as expanding its multi-currency support, should there be interest from participants.

6.1 Discounted contingent variation margin

The current LME margin methodology is CVM. This originated in the OTC forwards market and persisted when central clearing was introduced into the LME market. The key feature of the CVM methodology is that cash flows are realised at the settlement date. Given the clearing house needs to be protected from potential defaults, in practice, the forward profits and losses are discounted to their net present value ("**NPV**") and where mark to market losses arise, collateral is collected on a daily basis to cover these losses. Unrealised profits are held as an asset for the account of the clearing member and are available to offset other margin requirements, within the same NOSA. The final profits or losses are realised through the movement of cash on the settlement date. This means that profits are not paid out until contract maturity, even if the position has been closed. It is worth noting that while the DCVM methodology originated from OTC markets, the majority of cleared OTC markets have now migrated to an RVM methodology for varying reasons.

The net credit CVM of one client can be used at LME Clear to offset the margin requirements of other clients within the same NOSA, minimising the collateral requirements of the clearing member and in some cases enabling them to provide additional credit facilities to their clients. Members extending credit lines to their clients is an important service, particularly for smaller physical clients. It enables certain participants to trade cleared contracts that might otherwise trade OTC. However, some clients may have concerns with the level of netting of CVM flows in NOSAs because of the associated inter-customer risk that results.

Furthermore, in the event of default, the use of CVM combined with a client NOSA structure can increase the complexity of porting client positions. In a default scenario, where clients request porting to a preferred clearing member, CVM may become an obstacle to porting certain positions due to the requirement to protect the CCP from being exposed to losses for which it has no collateral. In short, the interdependencies between clients in a NOSA under CVM are more complex than under an RVM model.

Larger clearing members, financial participants and some larger physical clients are generally less concerned about the issue of credit provision and see CVM as a barrier to entry to the LME market.

6.2 Benefits of realised variation margin

In comparison, profits and losses under an RVM model are exchanged on a daily basis, which is the standard methodology for virtually all exchange traded and centrally cleared contracts. Standardising the LME's margin methodology would simplify processes for the majority of market participants and would reduce a potential barrier to entry for prospective market participants who use an RVM methodology on all other exchanges. Feedback from the 2017 Discussion Paper noted that several respondents identified CVM as a significant inhibitor to accessing the LME market.

Informed by the 2017 Discussion Paper and also other informal client engagement, the LME understands that financial participants would generally prefer the LME to operate an RVM methodology for a number of reasons. They are more likely than physical participants to also be active on other futures markets (which operate RVM). They are also more sensitive to having unrealised profits from already closed out positions unable to be released and redeployed elsewhere. Financial participants undertaking arbitrage trading also find RVM particularly preferable, otherwise they may have to fund a loss in an RVM market while being unable to access their forward profits on a CVM market (such as the LME). Fund managers note that without RVM, the LME market limits their asset allocation agility. The CVM model also causes challenges for them regarding making fund redemptions in a timely manner.

A move to RVM would also reduce the credit exposure of market participants to LME Clear. Currently if a member has a large positive CVM balance then this is considered a credit exposure against the clearing house and incurs a regulatory capital cost. In some cases this can limit the ability of members to trade the LME market. From a clearing member perspective, there are some potential regulatory capital cost savings from moving to RVM.

For large banks in particular, there are notable potential capital cost savings from a reduction in regulatory capital requirements. A move to RVM could have a positive impact on their leverage ratio. This means less capital is required to be held in order to meet leverage ratio requirements which has an associated funding cost saving. Regulatory capital costs have been a factor in many banks reassessing their commodities businesses in recent years, a potential move to RVM is therefore important in both attracting new participants and improving efficiency for existing participants to ensure they remain active in the LME market.

From a broader client perspective, as noted previously, RVM reduces the inter-customer risk within a NOSA account and reduces clients' credit risk against their member (when they have in-the-money positions).

6.3 Downsides of moving to realised variation margin

The key risk with moving to RVM is the potential reduction in credit provision from some members to certain client segments. Members are currently able to utilise one client's positive CVM balance to offset margin requirements and therefore extend credit to other clients. In some cases, a reduction in credit line availability could force smaller clients to reduce trading or potentially move business OTC.

The other important factor which helps members to provide credit limits is the ability to net initial margin within NOSAs. While gross omnibus segregated accounts ("**GROSAs**") are prevalent on many other peer futures markets, the LME is not considering making any changes to the NOSA account structure, therefore this benefit will remain.

If a move to RVM were made, the intention would be for the RVM model to apply to margining of positions directly held in clearing accounts at LME Clear (both house accounts, and client accounts). However, to the extent permitted by law and regulation, the LME would intend to design the rules so that members will be able to make their own arrangements with clients on how their balances from the daily settlement to market process are financed[4]. This would mean that members should be able to continue to operate a model where credit lines can be used, rather than clients needing to immediately finance daily settlements from their own resources. In addition, if a client's assets at the member were held in a title transfer collateral account ("**TTCA**") ie non-segregated, then the treatment of these assets would not change from their treatment under the current DCVM arrangements. Nevertheless, certain market participants may feel that the daily settlement to market process would be operationally burdensome and complicated in comparison with the existing CVM arrangements.

In other futures markets, which operate on an RVM basis, a number of other methods have evolved in order to provide participants with credit to cover their margin requirements. These include specific margin finance credit lines, which may be provided by the clearer themselves, or by a third party.

It must be noted however that it is possible that there would be a reduction in liquidity available for credit line provision (for example because some clients may want their profits paid out, or because the daily settlement to market process is too operationally burdensome), whether in the short term or permanently. As such, there may be a reduction in credit line availability for clients, or an increase in the cost of using credit lines, if the LME were to move to an RVM model. If the RVM model significantly impinged upon the provision of credit, certain market participants have expressed concern that business may move OTC. The LME is aware that

[4] The LME is aware that some members interpret sections of LME Rulebook relating to the existing cash-settled futures (which are margined using an RVM model) to mean that members are required to settle to market and call/pay amounts due on a daily basis with their clients, and that this effectively prohibits offering credit lines in respect of those contracts. The LME does not interpret the Rulebook in this manner, but will revisit these sections of the Rulebook with a view to clarifying that members are able to defer the paying / calling of amounts due, so that credit can still be facilitated, provided that members comply with other applicable regulatory requirements (for example in relation to client money requirements and title transfer collateral arrangements).

certain market participants, including a number of broker members, feel strongly that the risk of this is significant and that the negatives of RVM outweigh the positives.

The other key downside from making the move to RVM is the magnitude and complexity of the change for all market participants. Significant system changes would likely be required by clients, members, ISVs and the LME itself. A number of key questions around the process and the transition would need to be answered in order to effectively plan the move. A significant lead time and extensive engagement would therefore be required in order to make system changes and update risk and pricing models.

6.4 Should the LME move to realised variation margin?

Given the above analysis, and in particular balancing the strategic principles of maximising trading efficiency and ensuring fairness, against the need to serve the physical market, the LME is currently minded (subject to its consideration of responses to this Discussion Paper from participants) that on balance a move to RVM would be a benefit for the market as a whole.

6.5 Transitioning to realised variation margin

Should a move to RVM be undertaken, there are a number of key technical questions and decisions that will need to be discussed in due course regarding the potential transition. Most notably, whether any transition should take place through a "big bang" approach (meaning a single date or short period during which all current CVM contracts, including open contracts, would convert from CVM to RVM) or on a slower rolling basis (whereby the transition would take place over a longer period of time during which both CVM and RVM contracts would be available while newer RVM contracts are phased in). There are legal, operational and commercial implications to be considered in this regard. The purpose of this Discussion Paper is, however, to determine the prevailing view of the market as to whether to move to RVM and thus start the detailed planning and engagement that would determine the optimal transition approach.

The LME is cognisant of the sizable system changes and notable legal considerations for members and clients in any transition. In addition, members and clients may require time to adjust business models, and pricing approaches. Furthermore, the LME itself needs time to engage with the market in defining the system specifications for an RVM margin methodology. Due to the complexity of the change, detailed planning, sufficient timelines, and further engagement with stakeholders would be important. The LME would ensure it works closely market participants on the details of a transition, in order to minimise any operational risk.

The LME considers a high level timeline of three to five years appropriate in order to transition to RVM, to provide sufficient time for planning and preparation in order to ensure a successful transition.

LME position

- **The LME is of the view that the RVM margin model should be considered once more given the potential benefits to the market as a whole, including (i) maximising trading efficiency, (ii) standardising the market structure, (iii) reducing regulatory costs, and (iv) removing a key barrier to market entry.**
- **However, the LME notes the strongly expressed concerns regarding a move to RVM from certain sections of the market, given the potential impact to credit line availability.**
- **On balance the LME believes that it would be a benefit to the market as a whole to move to an RVM model, and an appropriate timeline would be three to five years, during which the LME will undertake planning and market engagement to ensure a successful transition.**

Intended benefits and potential challenges

Benefits

- **Standardisation with peer futures markets, and the removal of a barrier to entry cited by some potential clients.**
- **Potential for reduced regulatory capital costs for some financial institutions.**
- **Profits paid out on a daily basis, which may make LME trading more attractive to some participants, and some trading models more efficient.**
- **Reduced overall credit risk within the LME's ecosystem.**

Challenges

- **Clients may face a reduction in credit line availability, and/or an increase in the cost to use a credit line. These changes may also result in a reduced number of members that are positioned to grant credit facilities to physical clients. As a result, some physical clients may find it more difficult to access the LME directly in order to hedge their metals price risk. This may result in some trading moving OTC if that is an easier way to access credit and/or if it obviates the need for daily settlement and the associated operational burden.**
- **Any transition to RVM would be very complex, both operationally and from a systems development perspective for members and clients.**

Discussion questions

23) **Do you agree with the LME's assessment of the benefits and downsides of RVM?**
24) **Do you believe that the LME should transition to an RVM model?**
25) **Do you agree that the LME's high level proposed timeline is appropriate for a transition to RVM?**
26) **Is there anything else you think the LME should consider regarding a transition to RVM or its margin methodology more broadly?**
27) **Are there any other developments to the LME's clearing service that you would like the LME to investigate?**

7 Additional considerations concerning market conduct

Summary

- **The LME recognises that knowledge of metals stocks and physical movements may advantage certain traders with better access to information on them. As such, the LME should consider the impact, and whether relevant options for increasing transparency would be of benefit to the market.**
- **The LME has identified three layers of information to consider in relation to stocks and physical movements of metal: (i) warranting or cancelling of warrants, (ii) holdings of warrantable (but not warranted) metal, and (iii) large physical transactions.**
- **The LME is also aware that potentially abusive behaviour could occur in instances of a market squeeze when activity takes place outside of the LME's existing rules: (i) acquisition of a large proportion of warrants, and (ii) squeeze on spreads further down the curve which would not be caught by the lending rules.**
- **The ideas in this section are at a formative stage where the LME welcomes feedback in order to better understand the views of market participants.**

One unique feature of commodity markets is the interdependence between on-exchange contracts, physical inventory and movements of the underlying materials. This is particularly true of the LME given its close links with the physical markets. Knowledge in relation to stocks and physical movements of metal may put the holder of this information at an advantage over other market participants. Therefore, in view of this intrinsic connection between the LME, as a trading venue, and the LME as a venue for the physical market, this is an issue on which the LME is requesting feedback, as part of the its review of the LME's market structure. This is also in line with the LME's strategic principle of serving the physical market.

7.1 Stocks and physical movements

The LME's view is that information in relation to stocks and physical movements of metal can be broken down into three broad layers. The LME will examine these layers, starting with the activity closest to the LME's market and move outwards. The focus will be to consider circumstances under which information that could be classified as "inside information" could arise, and consider steps the LME could introduce to manage this risk.

It should be noted that the ideas discussed as possible options below are at a very formative stage. If any of the ideas were taken forwards then they would require significant additional work on the details and practicalities of how they may work. The LME is interested in market participants' general feedback on the ideas discussed, and on any views related to the practicalities of implementing such approaches.

7.1.1 Layer 1 - market participants warranting/cancelling LME warrants

LME warranted stock sits at the heart of the delivery ecosystem, and consequently is of great importance to the market. The LME publishes a stock report on a daily basis and therefore transparency in relation to LME warranted metal is delivered once those figures are published. Such stock reports, in their pre-publication form, have been identified both by ESMA and by the FCA as inside information, as per the guidance described below:

ESMA guidance: Under MAR[5], ESMA was mandated to produce guidelines detailing the type of information that could be considered as being "reasonably expected to be disclosed" in the context of commodity markets (for the purpose of the definition of commodity derivative inside information). The guidelines produced by ESMA in accordance with this mandate include reference to "*information about the stock levels or movements of commodities in warehouses and storage facilities required or reasonably expected to be published in accordance with the rules or practices of a commodity derivative market*."[6] This has clear application to LME warehouse stock reports[7].

FCA guidance: The FCA's guidance on inside information within commodity markets includes specific reference to LME stock reports and cites the following as an example of a situation in which inside information may arise:

"*Before the official publication of LME stock levels, a metals trader learns (from an insider) that there has been a significant decrease in the level of LME aluminium stocks. This information is reasonably expected to be disclosed in accordance with market practice or custom on the LME. The trader buys a substantial number of futures in that metal on the LME, based upon his knowledge of the significant decrease in aluminium stock levels*."[8]

In the period between a party deciding to warrant or cancel metal and the revised volume of inventory being published in the daily stock report (which could be a period of several days)[9], those with knowledge of the intended warranting/cancellation are at an advantage over other market participants as they are aware of changes or potential changes in the volume of stocks. Similarly, in the period between metal being put on warrant, or warrants being cancelled, and the stock report being published, those with the knowledge of the actual warranting/cancellation are at an advantage over other market participants.

7.1.1.1 Possible options for increased transparency

The LME could consider the introduction of a disclosure mechanism, similar to the regulatory news service employed at other exchanges. Where a market participant has formed an intention to warrant/cancel a volume of metal above a pre-determined threshold, they would not be permitted to enter into transactions on the LME

[5] Market Abuse Regulation – Regulation 596/2014 of the European Parliament and of the Council

[6] For completeness, the LME notes that the following examples of behaviour are also referred to in these guidelines (albeit in respect of spot contracts): "Information about the production, imports, exports and stocks of commodities on which a commodity derivative is based and transaction information about activity in the spot market of commodities reasonably expected to be disclosed in accordance with the practices of that spot market"; and "Information reasonably expected to be disclosed by private entities regarding changes in the conditions governing the storage of commodities (opening hours, fees, etc.), their load-in or load-out rate or more generally their capacity to process the commodity for storage and delivery, stock levels or movements of commodities in warehouses published in accordance with the practices of a spot commodity market."

[7] The original version of the guidelines included reference to LME stock lists; however, this was removed in order to make clear that it was intended to have broader application.

[8] FCA Handbook: MAR 1.3.21G

[9] This delay may occur because the party deciding to either warrant or cancel metal may have the intention to do so but not actually carry out the process until some time later. In addition, reporting is not done instantaneously and only warranting/cancellations processed by LMEsword before 4.30pm (London time) will be reported the following working day. Anything processed after that time will be reported the working day after that. If a cancellation/warranting was processed after 4.30pm on a Thursday before a bank holiday weekend, this could lead to a delay of five days.

in relation to that metal, or any other metal that could be impacted by the warranting/cancellation, until they had disclosed their intention to warrant/cancel the metal, or until the data had appeared on the LME stocks figures (whichever is the earlier). One point to consider is how this would be policed in practice, as it may not be clear that the participant has such an intention until they have acted on it.

The LME believes that such a change may be of benefit to the market, both by ensuring the highest standards of market conduct, and by allowing participants to make clear disclosures which would fulfil their disclosure requirements. They could then continue to trade without risk of trading on inside information.

7.1.2 Layer 2 - market participants who have warrantable (but not warranted) metal

There are not currently any legal requirements imposing reporting or transparency obligations on holdings of warrantable (but not warranted) stock. Knowledge of such stock may, depending on the relevant volumes held, be considered to be price sensitive information. Accordingly it may be appropriate to introduce a greater degree of transparency to the market around metal held in this way in order to maintain a greater balance of access to such information.

7.1.2.1 Possible options for increased transparency

In February 2020 the LME's off-warrant reporting regime came into force as part of a wider set of warehousing-related changes. This regime requires off-warrant stock to be reported to the LME by warehouse operators either where certain conditions relating to the contract are fulfilled or on a voluntary basis. The reporting obligation is for a monthly report only and as such, fluctuations in volumes held off-warrant within that period of time will not be reflected in real time. In addition, the LME is aware that significant amounts of metal may not be subject to reporting under the mandated routes where the contracts do not satisfy the relevant conditions or if participants do not report voluntarily.

During the course of the consultation process, prior to the introduction of the off-warrant reporting regime, the LME acknowledged that additional changes may be required in order to incentivise voluntary reporting and that it would keep the regime under review.

For example, it would be possible for the LME to build a reporting portal, which would allow market participants to register their holdings of warrantable (but not warranted) metal, with the data being aggregated and published on a real-time or near-real-time basis. The LME could then introduce a requirement for all users of the market (including those making use of LME prices) to register holdings if there were any reasonable expectation or likelihood of that metal being placed onto warrant by that owner in the future. This would represent a more broadly-drawn reporting criterion than the current off-warrant stock reporting rules.

Clearly, significant work would need to be undertaken to ensure that both the criteria and mechanisms for disclosure acted to create a fair and transparent informational landscape. In particular, the creation of an "intent-based" regime would require appropriate guidance to be provided to market participants, as to the circumstances in which reporting would be necessary. However, as a general principle, the LME believes that such an approach would be consistent with its stated principle – namely, that where metal owners are deriving value from the potential to warrant metal on the LME, the market is aware of the existence of such metal, given its potential ability to impact the market.

7.1.3 Layer 3 - market participants engaging in large physical transactions

Market participants holding long positions in warranted stock, warrantable stock, or related non-warrantable stock may have the ability to influence the price of both the underlying spot market and the price of the relevant on-exchange derivative. While the specific cases of warranted and warrantable stock have been explored above, actions in the broader physical market may equally have material impact on the futures market. The LME is conscious of the limitations on its remit in respect of pure physical supply contracts and that physical market participants who are not also LME market participants would have limited incentive to comply with any LME regime.

Nonetheless, the LME remains cognisant of the link between the physical and on-exchange markets and therefore wishes to ensure that activities undertaken on the physical market do not introduce inefficiencies or disorderly trading to the on-exchange market.

The LME notes that there are currently existing public sources of information relating to available physical stocks of metal. Whilst there is no single report providing a comprehensive overview of global stock levels, a combination of data sources may offer a picture of current demand and available supply. However, this fragmented nature of available reports could result in inconsistencies in the information available to market participants.

Should increased transparency in transactions undertaken in the physical market be viewed as potentially beneficial, the LME could expand its disclosure obligations to include a requirement on those trading on the LME to disclose certain physical transactions where they are above a certain size threshold, for example a specified percentage of warranted supply. The practicalities of introducing, monitoring and enforcing any such requirements would require further consideration before any such proposals could credibly be put forward.

It would be important to ensure that any increased disclosure obligation would not inadvertently capture or unduly impact physical participants engaging in their normal business activities. As such, a disclosure obligation on the physical market would need to balance the need of ensuring physical movements, which are in accordance with standard physical supply and hedging activities, are not caught, while also ensuring that the disclosure of other physical strategies, such as a merchant speculatively accumulating stock, were subject to appropriate transparency.

LME position

- **Knowledge of warrantable stock holdings can be considered price sensitive information. Introducing more transparency around this may help to maintain a greater balance of access to such information.**
- **The LME should explore whether to introduce additional disclosure mechanisms to increase transparency, such as a regulatory news service for intentions regarding warranting or cancellation activity.**
- **The LME may explore requirements to disclose certain physical transactions above specific size thresholds if participants believe this would be of benefit.**

Intended benefits and potential challenges

<u>Benefits</u>

- **Increased fairness in access to physical market information for all participants.**
- **Demonstrating best-in-class disclosure obligations for listed commodities markets.**

<u>Challenges</u>

- **Complexity of designing and implementing rules which give the desired disclosure, but are practicable. This includes in particular the challenges involved in determining whether a market participant has formed an intention at a particular point in time.**
- **The need to ensure increased disclosure obligations do not unduly discourage trading on the LME.**

Discussion questions

28) **Do you believe that it would be beneficial for the LME to introduce a disclosure mechanism for warranting/cancellation activity?**
29) **Do you think the LME should look to increase the transparency around holdings of warrantable, but not warranted, inventory?**
30) **Do you believe the LME should investigate disclosure obligation for large physical transactions?**
31) **Should the suggested disclosure mechanisms be intention-based, or are the practical impediments too significant? Are there any viable alternatives to an intention-based regime?**
32) **Is there anything else you think the LME should consider regarding transparency of in the physical metals markets?**

7.2 Market squeezes

Whilst the LME has an existing framework to mitigate potential market squeezes, there remains the possibility for potentially abusive behaviours to occur where activity takes place outside the scope of the LME's existing rules. Two such scenarios are described further below.

7.2.1 Scenario 1; acquisition of a large proportion of warrants

A party acquires all (or a significant proportion) of the available warrants for a particular metal and then cancels them. Once the warrants have left the LME warehouse, the owner would not be subject to the lending rules or any other LME requirements in respect of such warrants. This may facilitate the owner of the metal forcing up the price on the physical market.

The LME could look to introduce additional requirements limiting the ability of one party to acquire significant holdings of new or remaining warrants. Such requirements could identify a particular limit based on existing warrant holdings, previous cancellations or based on a fixed limit.

7.2.2 Scenario 2; squeeze on spreads further down the curve

The LME lending rules are designed to prevent nearby settlement squeezes. However, they do not impact activity further down the curve. Many peer futures exchanges operate rules which dictate strict position limits, and/or have reporting/accountability levels in order to mitigate the risk that one party could have a position large enough to influence the price of futures down the curve.

The LME could look to introduce specific outright position limits[10], or specific spread position limits, targeted at dates further along the curve to address any potential issues. These would need to be designed and tailored to ensure that they appropriately impacted potentially abusive behaviour, while minimising unintended consequences.

[10] The MiFID II regime currently imposes specific position limits on non-spot month positions. However, these may not be effective in managing the potential squeezes contemplated by this Discussion Paper owing to the manner in which certain exemptions apply and the position is calculated.

7.2.3 Reporting OTC positions

Large OTC positions can have just as significant an impact on the LME market as warrant holdings or LME positions. While the LME has consulted on rules to allow it to request information on OTC business on an ad-hoc basis, the LME does not currently request regular reporting of details of OTC contracts, nor the positions resulting therefrom (reporting under the Financial OTC Booking Fee Policy concerns the volume of transactions, but not transaction or position details), although it notes that existing obligations in relation to OTC reporting are in place both under the position limit regime (under certain circumstances) and on alternative trading venues depending on the nature of trading undertaken on that venue.

The LME is interested in feedback on the introduction of a rule which would require the regular reporting by members of related OTC positions. This could require members to report details of their OTC contracts on a daily basis. This data could be aggregated and published to the market on a delayed basis. This might have a number of advantages. Firstly, it would provide the LME with an additional mechanism for monitoring and detecting market abuse: currently it is possible to conceive of scenarios where a client conducts abusive behaviour part on-exchange and part-OTC, which would be more difficult for the LME to detect without access to data about OTC positions. Secondly, it would allow the LME's risk department to better understand the spread of risk across members and clients. Thirdly, if the data were published, it would provide more transparency and a fuller data set to the market as a whole. It is worth considering the advantages of a rule obliging members to report relevant OTC data in, or close to, real time, on a trade feed, for rapid publication to the market. This would have the benefit of providing more immediate transparency.

It has also been suggested by certain market participants that the LME could use the OTC data to monitor client exposure and even to warn members if a particular client was building a significant risk position across multiple members (although this may raise concerns in respect of the confidentiality of data).

LME position

- **To mitigate potential market squeezes, the LME is interested in participants' views on policies to limit activity, including (i) rules to limit one party's ability to acquire significant holdings of new or remaining warrants, (ii) introduction of specific outright position limits to address potential squeezes further down the curve, and (iii) regular reporting of OTC positions.**

Intended benefits and potential challenges

<u>Benefits</u>

- **Reducing the potential for market squeezes on LME and related OTC markets.**
- **Ensuring highest standards of market conduct.**
- **Ensuring that OTC markets are not used as a way to circumvent compliance with rules to ensure market orderliness.**

<u>Challenges</u>

- **Complexity of designing a position limits regime for positions further down the curve that has the positive benefits desired, without unintended consequences limiting some legitimate trading activities.**
- **Complexities of implementing rules in the OTC market, where the LME only has limited oversight.**
- **Risk of unintended negative consequences on OTC trading as a whole.**

Discussion questions

33) **Do you believe the LME should look to introduce rules limiting the ability of one party to acquire a significant holding of new or remaining warrants?**
34) **Do you think the LME should investigate position limit rules, or similar rules around position accountability or reporting?**
35) **Do you think the LME should seek to introduce additional rules around the reporting of OTC positions?**
36) **Is there anything else you think the LME should consider regarding market conduct around the potential for market squeezes?**
37) **Is there anything else you think the LME should consider regarding any other aspect of market conduct?**
38) **Do you have any further comments on any of the topics covered within this Discussion Paper? Or any other topics you think the LME should consider?**

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