



# The LME Statement of Compliance with the IOSCO Principles for Oil Price Reporting Agencies and Independent Assurance



## Introduction

The London Metal Exchange (“**LME**”) is a world centre for the trading of industrial metals and provides pricing, risk and terminal market services to the global physical metals industry. The LME publishes various prices that are used throughout the metals industry as reference prices (and which fall within the definition of ‘benchmark’ pursuant to the UK Benchmarks Regulation (“**BMR**”)). The LME is authorised and regulated by the Financial Conduct Authority in respect of its benchmark administration activities.

The LME is making this statement of compliance with the IOSCO Principles for Oil Price Reporting Agencies (“**IOSCO Principles**”) on a voluntary basis. The LME is not an oil price reporting agency, nor are any of the benchmarks administered by the LME oil benchmarks. The LME’s BMR statement of compliance is available separately on the LME website.

The IOSCO Principles’ role is acknowledged in the BMR as a global standard for the provision of benchmarks. This is demonstrated in relation to a third country administrator applying for recognition. The European Securities and Markets Authority Questions and Answers on the BMR (“**ESMA Q&A**”) sets out under 7.5 that *“where Article 32(2) of BMR states that in order to assess compliance with the IOSCO principles for Oil Price Reporting Agencies (PRAs), the FCA may rely on an assessment [of the IOSCO Principles] by an independent external auditor”*. Another example where the IOSCO Principles are seen to be an appropriate proxy is with regards to audit requirements. ESMA Q&A also sets out under 7.6 that *“Pursuant to Article 19 of the BMR, for those commodity benchmarks applying Annex II of the BMR instead of Title II of BMR, ESMA considers that an annual review of IOSCO principles for PRAs by an independent external auditor is sufficient to ensure compliance with paragraph 18 of Annex II of BMR”*.

This **IOSCO Statement of Compliance** is published pursuant to Principle 2.21 of the IOSCO Principles in respect of the audit requirement for the LME’s adherence to its stated methodology criteria and with the requirements of the IOSCO Principles. In this IOSCO Statement of Compliance, the LME describes the relevant control objectives and procedures for the period from 8 September 2020 to 31 December 2021 (“**Period Under Review**”) relevant to six families of benchmarks, namely the Official Prices, Closing Prices, Monthly Average Settlement Prices, Notional Average Prices, LMEprecious Reference Prices and LPP Prices (collectively the “**Benchmarks**”) administered by the LME during the Period Under Review. A list of the Benchmarks and each Benchmark Family to which those Benchmarks belong can be found in Appendix A.

The LME has appointed Ernst & Young LLP (“**EY**”) to provide independent assurance regarding the LME’s IOSCO Statement of Compliance and that the control procedures relating to the applicable requirements of the IOSCO Principles and the published benchmark methodologies have been adhered to in respect of the Benchmarks. EY have concluded that in all material respects, based on the control objectives described in the IOSCO Statement of Compliance in respect of the Benchmarks which were designed to fulfil the LME’s compliance with the applicable requirements of the IOSCO Principles and adherence to published benchmark methodologies (the Control Objectives):

- the LME’s IOSCO Statement of Compliance describes fairly the LME’s control procedures that relate to the control objectives which were in place throughout the Period Under Review;
- the control procedures are suitably designed such that there is reasonable, but not absolute, assurance that the related control objectives would have been achieved if the described control procedures had been in place and were complied with satisfactorily throughout the Period Under Review; and
- the control procedures that were tested, as set out in the IOSCO Statement of Compliance, were operating with sufficient effectiveness for EY to obtain reasonable, but not absolute, assurance that the related control objectives were achieved throughout the Period Under Review.



## Key Terms

This IOSCO Statement of Compliance should be read in conjunction with the LME Benchmark Defined Terms (“**Definitions**”) and other BMR related documents, for example, benchmark methodologies and benchmark statements (the “**BMR Documents**”) available on the LME’s website<sup>1</sup>. Any capitalised terms not specifically defined in this IOSCO Statement of Compliance shall have the meaning given to them in the Definitions and BMR Documents.

## Further Information

If any interested parties have any questions or requests for further clarification regarding this IOSCO Statement of Compliance, please contact the LME at [benchmarks@lme.com](mailto:benchmarks@lme.com).

Further details about the LME, the Benchmarks or other services can be found at [www.lme.com](http://www.lme.com).

## Disclaimer

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<sup>1</sup> the documents referred to as BMR Documents are, to all intents and purposes, the LME’s pricing methodology documents for non-BMR purposes.



## Executives' Statement

We are responsible for the identification of the control objectives for our business and the design and operation of the LME's control framework to effectively address the provisions of the IOSCO Principles and in compliance with the published benchmark methodologies for the Benchmarks.

In our attached IOSCO Statement of Compliance, we set out a description of the relevant frameworks and control procedures together with the related control objectives and IOSCO requirements for the period from 8 September 2020 to 31 December 2021 ("Period Under Review") and confirm that:

- i. The IOSCO Statement of Compliance fairly describes the control procedures which were in place throughout the Period Under Review; and
- ii. The control procedures are suitably designed such that the specified control objectives, including the provisions of the IOSCO Principles and benchmark methodologies, can be achieved and to our knowledge and belief the described control procedures were complied with; and
- iii. The control procedures were operating with sufficient effectiveness to achieve related control objectives throughout the Period Under Review.

Signed by Matthew Chamberlain for and on behalf of The London Metal Exchange,

A handwritten signature in black ink, appearing to read 'M Chamberlain', with a long horizontal line extending to the right.

**Matthew Chamberlain, Chief Executive Officer and Board Director**

19 April 2022

**Independent practitioner’s assurance report to the directors of The London Metal Exchange (the ‘Company’) in respect of the Company’s statement of compliance (the ‘IOSCO Statement of Compliance’) with the IOSCO Principles for Oil Price Reporting Agencies (‘IOSCO Principles’) and adherence to its published benchmark methodologies, with regards to their administration and calculation of the six ‘families of benchmarks’ for the period from 8 September 2020 to 31 December 2021.**

### **Use of the report**

We have carried out a reasonable assurance engagement in respect of the Company’s control procedures (the ‘subject matter’) that relate to compliance with the IOSCO Principles for Oil Price Reporting Agencies (‘IOSCO Principles’) and adherence to published benchmark methodologies, with regards to its administration of the six families of benchmarks, namely:

- Official Prices,
- Closing Prices,
- Notional Average Prices,
- Monthly Average Settlement Prices,
- LMEprecious Reference Prices (until 22 January 2021)<sup>2</sup>, and
- LPP Prices

(the ‘Benchmarks’) throughout the period from 8 September 2020 to 31 December 2021. This report is produced in accordance with the terms of our engagement letter dated 28 October 2021 (the ‘Engagement Letter’) for the purpose of reporting to the directors of The London Metal Exchange.

This report is made solely to the directors, as a body, of the Company, and solely for the purpose of reporting on the Company’s IOSCO Statement of Compliance’s compliance with the IOSCO Principles and published benchmark methodologies, in accordance with the Engagement Letter.

Our work has been undertaken so that we might report to the directors those matters that we have agreed to state to them in this report and for no other purpose. Our report must not be recited or referred to in whole or in part in any other document nor made available, copied or recited to any other party, in any circumstances, without our express prior written permission. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company’s directors as a body, for our examination, for this report, or for the opinions we have formed.

### **Responsibilities of the Company**

The Company’s directors are responsible for ensuring that the Company designs, implements and monitors compliance with policies and procedures that comply with the IOSCO Principles and with published benchmark methodologies and that the IOSCO Statement of Compliance has been compiled in accordance with the IOSCO Principles. The Company’s directors remain solely responsible for preparing the IOSCO Statement of Compliance which includes the control objectives and related control procedures.

The Company’s directors are responsible for selecting the criteria, and for presenting the subject matter in accordance with that criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the

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<sup>2</sup> The LME ceased the publication of the LMEprecious Reference Prices on 22 January 2021 and as such our opinion on LMEprecious Reference Prices will be expressed until the date of cessation.

preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

### **Responsibilities of Ernst & Young LLP**

Our responsibilities for this engagement are to form an independent conclusion, based on the work carried out in relation to the control procedures related to compliance with the IOSCO Principles and adherence to its published benchmark methodologies in respect of the Benchmarks and the evidence we have obtained, as described in the Company's IOSCO Statement of Compliance and report this to you as the directors of the Company.

It is our responsibility to express an opinion on the presentation of the subject matter based on the evidence we have obtained.

### **Our approach**

We conducted our engagement in accordance with International Standard on Assurance Engagements (ISAE) (UK) 3000 (July 2020) Assurance Engagements other than audits or reviews of historical financial information ('ISAE (UK) 3000 (July 2020)') as promulgated by the Financial Reporting Council (FRC) and the Institute of Chartered Accountants in England and Wales' Technical Release (Tech 02/14FSF) Assurance Reports on Benchmark and Indices.

The criteria against which the control procedures were evaluated are the control objectives as set out within TECH 02/14 FSF and identified by the Company's directors as relevant control objectives to fulfil the Company's compliance with the IOSCO Principles and adherence to its published benchmark methodologies. We performed a reasonable assurance engagement as defined in ISAE (UK) 3000 (July 2020). For the purpose of the engagement we have been provided by the directors with the IOSCO Statement of Compliance. The Directors of the company remain solely responsible for the preparation of the IOSCO Statement of Compliance.

In performing this engagement, we have applied International Standard on Quality Control (ISQC) 1 and the independence and other ethical requirements of the Institute of Chartered Accountants of England and Wales (ICAEW) Code of Ethics (which includes the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA)).

We have performed the procedures agreed with you and set out in our Engagement Letter. Our work was based upon obtaining an understanding of the control objectives and related control procedures, as described in the IOSCO Statement of Compliance and evaluating the IOSCO Statement of Compliance. The nature, timing and extent of the tests we applied and the criteria against which the control procedures were evaluated are detailed in the IOSCO Statement of Compliance.

The objective of a reasonable assurance engagement is to perform such procedures on a sample basis as to obtain information and explanations which we consider necessary in order to provide us with sufficient appropriate evidence to express a positive conclusion on the IOSCO Statement of Compliance.

### **Inherent limitations**

Our conclusion is based on historical information and the projection of any information or conclusions in the attached report to any future periods would be inappropriate. Our examination excludes audit procedures such as verification of all assets, liabilities and transactions and is substantially less in scope than an audit performed in accordance with International Standards on Auditing (UK) and therefore provides a lower level of assurance than an audit. Accordingly, we do not express an audit opinion on the information.

The validity and reliability of benchmarks is dependent on both (i) those who provide information to the Company, for which data providers are responsible, and (ii) the procedures performed by the Company

to analyse that information. We performed no procedures on, and express no assurance over, source data provided by third parties.

Control procedures designed to address specified control objectives are subject to inherent limitations and, accordingly, errors or irregularities may occur and not be detected. Such control procedures cannot guarantee protection against (among other things) fraudulent collusion especially on the part of those holding positions of authority or trust.

## Conclusion

In our opinion, based on the control objectives described in the Company's IOSCO Statement of Compliance in respect of the Benchmarks, which were designed to fulfil the Company's compliance with the IOSCO Principles and with the published benchmark methodologies, in all material respects:

- a) The IOSCO Statement of Compliance describes fairly the Company's control procedures that relate to the control objectives specified above which were in place throughout the period from 8 September 2020 to 31 December 2021;
- b) The control procedures are suitably designed such that there is reasonable, but not absolute, assurance that the related control objectives would have been achieved if the described control procedures had been in place and were complied with satisfactorily throughout the period from 8 September 2020 to 31 December 2021; and
- c) The control procedures that were tested, as set out in the IOSCO Statement of Compliance, were operating with sufficient effectiveness for us to obtain reasonable, but not absolute, assurance that the related control objectives were achieved throughout the period from 8 September 2020 to 31 December 2021.

*Ernst & Young LLP*

Ernst & Young LLP

London

19 April 2022



## IOSCO Statement of Compliance

The tables below set out the IOSCO Principles for Oil Price Reporting Agencies and how the LME complies with each of those principles. While these principles were drafted primarily for the oil markets, they were designed in such a way that they could be applied to the commodities market. The control framework, designed and operated by the LME for administration of prices, is written in line with terminology set out in the UK Benchmark Regulation (“**BMR**”). Where this control framework is also referenced to demonstrate compliance with the IOSCO Principles, some terms may not correlate seamlessly, for example, ‘price assessment’ and ‘benchmark’.

1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME’s Response	EY Evaluation Procedures
Methodology			
1.1	A PRA should formalize, document, and make public any methodology that it uses for a price assessment.	<u>Control objective:</u> The LME publishes a Benchmark Methodology in accordance with IOSCO Principle 1.1 for each Benchmark Family.	<ul style="list-style-type: none"> <li>▶ We obtained the Benchmark Methodologies and the below Notices which supplement the Benchmark Methodologies from the LME’s website and inspected them for evidence of the elements as described in the LME’s response.</li> <li>▶ We obtained minutes from meetings of the PVC and LPPOC during the Period Under Review and, on a sample basis, inspected for the evidence that changes to the methodology referred to in the LME’s response to Principle 1.1 – 1.3 were reviewed and approved by the relevant governance committee.</li> <li>▶ As a result of Covid-19, and in line with government guidance, the LME suspended the Ring and implemented a business continuity methodology (the “<b>BCP Methodology</b>”) to determine the Official Prices and Closing Prices electronically which took effect on 20 March 2020. During the Period Under Review, the BCP Methodology was used for establishment of the Closing Prices. It</li> </ul>
1.2	A methodology should aim to achieve price assessments which are reliable indicators of oil market values, free from distortion and representative of the particular market to which they relate.	For the LPP Prices, Schedule 1 of the LPP Regulations constitutes the Benchmark Methodology.  Each Benchmark Methodology should be read in conjunction with the applicable Benchmark Statement.	
1.3	At a minimum, a methodology should contain and describe: a) All criteria and procedures that are used to develop an assessment including how the PRA uses the specific volume, concluded and reported transactions, bids, offers and any other market information (collectively “market data”) in its assessment and/or assessment time periods (i.e., windows), why a specific reference unit is used (i.e., barrels of oil), how the PRA collects such market data, the guidelines that control the exercise of judgment by assessors and any other information, such as assumptions, models and/or extrapolation from collected data that are considered in making an assessment;	<u>Control procedures:</u> Benchmark Methodologies for each Benchmark Family are reviewed and approved by the relevant governance committee prior to them being published on the LME’s website.  With reference to specific points in IOSCO Principles 1.1 – 1.3:  (a) The LME’s published Benchmark Methodologies contain and describe the criteria and procedures used for the determination of the benchmarks, including, but not limited to, the collection of input data	



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
	<p>b) Its procedures and practices that are designed to ensure consistency between its assessors in exercising their judgment;</p> <p>c) The relative importance that generally will be assigned to each criterion used in forming the price assessment (i.e., type of market data used, type of criterion used to guide judgement). This is not intended to restrict the specific application of the relevant methodology but is to ensure the quality and integrity of the price assessment;</p> <p>d) Criteria that identify the minimum amount of transaction data (i.e., completed transactions) required for a particular price assessment (the "transaction data threshold"). If no such threshold exists, the reasons why a minimum threshold is not established should be explained, including procedures where there is no transaction data;</p> <p>e) Criteria that address the assessment periods where the submitted data fall below the methodology's recommended transaction data threshold or the requisite PRA's quality standards, including any alternative methods of assessment (i.e., theoretical estimation models). That criteria should explain the procedures used where no transaction data exists;</p> <p>f) Criteria for timeliness of market data submissions and the means for such submissions (i.e., electronically, via telephone, etc.);</p> <p>g) Criteria and procedures that address assessment periods where one or more reporting entity submits market data that constitute a significant proportion of the total data upon which the assessment is based (i.e.,</p>	<p>such as bids and offers, transactions, quotes and other market information.</p> <p>(b) For those Benchmarks determined with elements of discretion or Expert Judgement, the Benchmark Methodologies contain and describe how and when Expert Judgment may be applied by its Assessors. The LME has established internal procedures to provide guidance and regular assessment of its Assessors which is designed to ensure judgments are exercised consistently. We note that this is not applicable to the Monthly Average Settlement Prices ("MASPs") and Notional Average prices ("NAPs") which are determined on the basis of a formulaic mean average calculation. No Expert Judgment or discretion is used in the process of determining the MASPs and NAPs.</p> <p>(c) The Benchmark Methodologies contains and describes the relative importance of benchmark criterion, including type of input data and use of judgement to ensure consistent and reliable benchmark determinations.</p> <p>(d) &amp; (e) The Benchmark Methodologies contain and describe the minimum amount of transaction data required in the determination of the Benchmarks and the assessment period and criteria for which inclusion of input data will be considered. Where 'Minimum Volume Requirement Threshold' ("MVR Threshold") form part of the determination, these are defined in the Benchmark Methodologies. Where there is no MVR Threshold, the rationale is also captured in the Benchmark Methodologies.</p>	<p>was also used for the establishment of the Official Prices from 8 September 2020 until the reopening of the Ring on 6 September 2021. The relevant Notices that supplement the Benchmark Methodologies for the Official Prices and Closing prices were contained, updated and restated within:</p> <ul style="list-style-type: none"> <li>▶ Notice 20/069 issued on 19 March 2020 (from the beginning of our Period Under Review until 5 November 2020);</li> <li>▶ Notice 20/242 issued on 6 November 2020 (superseding and replacing the Notice 20/069); and</li> <li>▶ Notice 21/041 issued on 10 March 2021 (superseding and replacing the Notice 20/242)</li> <li>▶ Policy for Establishing (a) Official and Closing Prices on LMEselect in the event that the Ring is not available, or Trading is Disrupted and (b) Cash-Settled Future Daily Settlement Prices for Cash-Settled Futures in the Event that Trading on LMEselect is Disrupted During the Relevant VWAP Window issued on 6 September 2021 and restated as the "BCP Policy" in Notice 21/158 issued on 26 August 2021.</li> <li>▶ We obtained the business continuity policies for all the Benchmarks and inspected them for alternative arrangements to ensure publication</li> </ul>



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
	<p>key submitter dependency). The PRA should also define in its criteria and procedures for what constitutes a “significant proportion” for each price assessment;</p> <p>h) Criteria according to which transaction data may be excluded from a price assessment.</p>	<p>(f) &amp; (g) Not applicable as there are no submitters for any of the Benchmarks.</p> <p>(h) For those Benchmarks that utilise transaction data, the Benchmark Methodologies contain and describe when the exclusion of transaction data is permitted.</p> <p>The LME monitors activity undertaken on its markets using a range of tools, aimed at identifying potentially erroneous input data. Such input data could include, (on a non-exhaustive basis) transaction prices or bids and offers that represent significant and unexplained price moves, as well as potentially manipulative behaviours that may be intended to influence the determination of a Benchmark. Where such behaviours or circumstances are identified, the LME may exclude the relevant data from the input data that is used to determine the relevant Benchmark. Any decision to exclude transaction data would be made in accordance with the control set out in the internal procedures.</p> <p>For LPP Prices, these are determined via an auction and not using transaction data.</p> <p>This is also not applicable to the MASPs and Notional Average prices NAPs which do not directly use transaction data. However, when determining the Official Prices (including the Official Settlement Prices) and Closing Prices, the LME may elect to exclude certain transaction data from the calculations.</p>	<p>process continues in compliance with the IOSCO Principles and methodology.</p> <p>► <b>Other matters:</b> We noted that on 15 September 2021, there was a delay in the publication of the Closing Prices as the Trading Operations team were unable to finalise prices due to a failure in workflow. This impacted all Closing pricing for all base metals on that day, which prevented Closing Prices being published and flowing downstream to distribution channels such as LME Live and to external vendors. We were informed by Management that the incident was resolved by application support team and prices were published with a two and a half hour delay. In line with procedures users were notified that there would be a delay to the publication of the Closing Prices and were sent a further notification upon publication of the Closing Prices. We therefore note that this is not an exception or a finding and have included it to provide further information to users of this report.</p> <p>► We performed a walkthrough of the benchmark determination process relevant to the Benchmarks to evidence that the Benchmarks were determined in line with published methodologies.</p> <p>► For a sample of each of the Official Prices, Closing Prices, Monthly Average Settlement Prices, Notional Average Prices, and LMEprecious Reference Prices, we performed a recalculation of the published prices to ensure the</p>



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
			<p>methodologies were adhered to. Based on our testing we noted the following:</p> <ul style="list-style-type: none"> <li> <b>Finding:</b>            From our sample testing for the determination of Official Prices and Closing Prices, we identified instances where there were errors within the record retention sheets used for the purpose of documenting the pricing determinations and the expert judgment applied by the Trading Operations team. However, we were able to substantiate, using other supplementary information retained by Management, that the errors were not in relation to the determined prices and were solely in relation to the post-event record retention.         </li> </ul> <p><b>Management Response:</b>            Management agree that the identified instances were not in relation to the determined prices and were solely in relation to the post-event record retention. The LME shall consider whether any enhancements to record keeping procedures are required.</p> <ul style="list-style-type: none"> <li> <b>Finding:</b>            From our sample testing of the objections received on the outright prices for Official Prices and Closing Prices, we identified three instances (two provisional prices and one final price) which were amended as a result of operational oversights.         </li> </ul>



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
			<p><b>Management Response:</b>            On both occasions where the instances related to provisional prices, the objection process, which is a key control in the determination of the Official Prices and Closing Prices, ensured that the prices were accurately discovered prior to publication of the Benchmarks.</p> <p>The operational oversight in relation to the final price was self-identified by the LME and an error correction was issued and notified to the market in line with the internal policy and after approximately one hour of the original publication.</p> <p>▶ <b>Other matters:</b>            For the Official Prices, we noted three instances during BCP (electronic determination) where the final Official Prices were published before the five minutes following the publication of the provisional prices (the objection window) as prescribed in the Methodology document. We have considered the mitigating factors where the LME has i) the publication of the final prices was made in accordance with the publication timing stated in the Methodology document; ii) the LME has built within the Methodology for users to lodge a price dispute if the right to objection was not presented. We were informed by Management that there were no price disputes relating to these three instances.</p>



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
			<p>We therefore note that this is not an exception or a finding and have included it to provide further information to users of this report.</p> <ul style="list-style-type: none"> <li>▶ For the LPP Prices, we observed a number of price discovery auctions to ensure the published methodology as set out in the LPP Regulations was adhered to.</li> <li>▶ LPP Prices are discovered within LMEbullion, the application for operating the auction process, and are determined in line with the processes set out in the LPP Regulations. The LPP Regulations lays out the criteria when the minimum number of participants for an auction to be considered quorate is not met, as well as the process when the imbalance thresholds are not met. We obtained evidence that the auction took place throughout the Period Under Review and the imbalance threshold was in line with the published methodology as set out in the LPP Regulations.</li> <li>▶ We obtained the procedural documents detailing the tools available to the LME aimed at identifying potentially erroneous input data. We enquired with Market Surveillance to understand the trade and order review controls performed to identify suspicious transactions.</li> <li>▶ For a sample of referrals and observations during the Period Under Review, we obtained and inspected the evidence of the review and analysis of the observations and referrals submitted</li> </ul>



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
			by members of the Trading Operations team.
1.4	<p>A PRA should describe and publish the:</p> <p>(a) Rationale for adopting a particular methodology, including any price adjustment techniques and a justification of why the time period or window within which market data is accepted is a reliable indicator of physical market values;</p> <p>(b) Procedure for internal review and approval of a given methodology, as well as the frequency of this review;</p> <p>(c) Procedure for external review of a given methodology, including the procedures to gain market acceptance of the methodology through consultation with stakeholders on important changes to their price assessment processes.</p>	<p><u>Control objective:</u> To ensure that the LME uses a robust and transparent methodology for the determination of the Benchmarks.</p> <p>The Benchmark Statements and the Benchmark Methodologies set out the rationale for adopting particular methods for the determination of the Benchmarks. They shall be regularly reviewed to ensure they remain relevant and acceptable to the market through consultation with users on important changes when deemed necessary. The Benchmark Methodologies used for the determination of the Benchmarks are published on the LME's website.</p> <p><u>Control procedures:</u> Benchmark Statements and Benchmark Methodologies for each of the Benchmark Families are reviewed and approved by the appropriate governance committee prior to publication on the LME's website. Amongst others, the responsibility to review and approve methodologies and statements is clearly set out in the terms of reference of those governance committees.</p> <p>With reference to specific points in Principle 1.4:</p> <p>(a) The LME's published Benchmark Statements include a section on the rationale for the chosen methodology.</p>	<ul style="list-style-type: none"> <li>▶ We inspected and confirmed that the Benchmark Methodologies are available on the LME's website.</li> <li>▶ We obtained and inspected the Benchmark Statements and Benchmark Methodologies to evidence the LME's response for point (a) and (b).</li> <li>▶ We obtained the terms of reference of the relevant governance committees and inspected for responsibilities of the committee included:               <ul style="list-style-type: none"> <li>▶ Formal annual review of the definition and methodology of the Benchmarks;</li> <li>▶ Overseeing any changes to the Benchmark Methodologies; and</li> <li>▶ Overseeing the LME's control framework for the administration of the Benchmarks and the LME's adherence to its published Benchmark Methodologies</li> </ul> </li> <li>▶ We obtained the LME Benchmark Changes and Cessation Procedure and LPP Regulations from the LME's website and inspected them for evidence of procedures to be followed in the event there are changes to the Benchmark Methodology including important changes to the calculation, as described in the LME's response. For changes made to Benchmark Methodologies for the Period Under Review, we obtained evidence, on sample basis, of the review and approval</li> </ul>



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
		<p>(b) The LME's published Benchmark Statements and Benchmark Methodologies set out the procedure for internal review, approval, and the frequency of such reviews.</p> <p>(c) The LME's Benchmark Changes and Cessation Procedure defines the process where consultation will be considered with Benchmark users in relation to a proposed change to a Benchmark or a proposed cessation of a Benchmark. This procedure is published on the LME's website.</p>	<p>of the changes to the Benchmark Statements by the governance committees prior to publication.</p>
Changes to a Methodology			
1.5	<p>A PRA should adopt and make public to stakeholders explicit procedures and rationale of any proposed material change in its methodology. Those procedures should be consistent with the overriding objective that a PRA must ensure the continued integrity of its price assessments and implement changes for good order of the particular market to which such changes relate. Such procedures should:</p> <p>(a) Provide advance notice in a clear timeframe that gives stakeholders sufficient opportunity to analyse and comment on the impact of such proposed changes, having regard to the PRA's assessment of the overall circumstances;</p> <p>(b) Provide for stakeholders' comments, and the PRA's response to those comments, to be made accessible to all market stakeholders after any given consultation period, except where the commenter has requested confidentiality.</p>	<p><u>Control objective:</u> To ensure the integrity of Benchmark determinations and to provide users of those Benchmarks with the appropriate forums to suggest or comment on material changes to the Benchmark Methodologies.</p> <p><u>Control procedures:</u> The LME's Benchmark Changes and Cessation Procedure and Regulation 19 of the LPP Regulations set out the processes for consideration of consultation on any proposed changes to a Benchmark's methodology and the process for review and approval by the relevant governance committee prior to them being adopted and published on the LME's website.</p> <p>With reference to specific points in Principle 1.5, where a proposed change is deemed by the LME to be material and where to follow a consultation process would not be inconsistent with the LME's regulatory obligations as the operator of a trading venue:</p>	<ul style="list-style-type: none"> <li>▶ See response to Principle 1.4 above.</li> <li>▶ We noted during the Period Under Review there was a change to the Closing Price Methodology that was deemed by the LME to be material in nature. We obtained evidence that the process for consultation on this change to the Closing Price Methodology was conducted in line with the LME Benchmark Changes and Cessation Procedure.</li> </ul>



1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
		<p>(a) The LME typically adopts a consultation period of four weeks, where practicable for all the Benchmarks except the LPP Prices where the LPP Regulations set out how long participants have to object to any proposed changes to those regulations.</p> <p>(b) The LME, subsequent to the consultation, publishes comments received by users and the response to those comments, except where a commenter has requested confidentiality.</p>	
1.6	A PRA should engage in the routine examination of its methodologies for the purpose of ensuring that they reliably reflect the physical market under assessment. This should include a process for taking into account the views of relevant stakeholders.	Refer to the LME's response to IOSCO Principle 1.4.	► See response to IOSCO Principle 1.4.



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
2.1	A PRA should take measures that are intended to ensure the quality and integrity of the price assessment process.	Refer to the LME's response to IOSCO Principle 2.2.	▶ See response to IOSCO Principle 2.2.
<b>Market Data used in Price Assessments</b>			
2.2	<p>A PRA should:</p> <p>(a) Specify with particularity the criteria that define the physical commodity that is the subject of a particular methodology;</p> <p>(b) Utilize its market data, giving priority in the following order, where consistent with the PRA's approach to ensuring the quality and integrity of a price assessment:</p> <ol style="list-style-type: none"> <li>1. Concluded and reported transactions;</li> <li>2. Bids and offers;</li> <li>3. Other market information.</li> </ol> <p>(c) Nothing in this provision is intended to restrict a PRA's flexibility in using market data consistent with its methodologies. However, if concluded transactions are not given priority, the reasons should be explained as called for in 2.3(b)</p> <p>(d) Employ sufficient measures designed to use market data submitted and considered in a price assessment, which are bona fide, meaning that the parties submitting the market data have executed, or are prepared to execute, transactions generating such market data and the concluded transactions were executed at arms-length from each other. Particular attention should be made in this regard to inter-affiliate transactions;</p> <p>(e) Establish and employ procedures to identify anomalous (i.e., in the context of a PRA's methodology) or suspicious transaction data and keep records of decisions to exclude transaction data from the PRA's price assessment process;</p>	<p><u>Control objective:</u> To ensure quality and integrity of benchmark calculations for the Benchmarks published by the LME.</p> <p><u>Control procedures:</u> The LME maintains up to date procedure manuals for each of the Benchmarks. These procedure manuals are reviewed and approved by the responsible area of management and governance forums.</p> <p>With reference to specific points in Principle 2.2:</p> <p>(a) The LME publishes the criteria that define the physical commodities underlying the Benchmarks in the respective Benchmark Methodology and is available for each metal on the LME website under the appropriate Contract Specifications.</p> <p>(b) &amp; (c) The priority given to input data is defined the Benchmark Methodologies and Benchmark Statements. Where this doesn't follow the order specified in Principle 2.2 (b), the rationale is provided.</p> <p>(d) Trade information used as input data for the determination of the Benchmarks is sourced from the activity on the Exchange and under the rules set out in the LME Rulebook, accordingly there are no submitters to any of the Benchmarks. Notwithstanding this, the LME have measures in place to ensure that</p>	<p>▶ We obtained each Benchmark Methodology and inspected the benchmark definition for criteria as described in the LME's response.</p> <p>▶ For a sample of each of the Official Prices, Closing Prices, Monthly Average Settlement Prices, Notional Average Prices, and LMEprecious Reference Prices, we performed a recalculation of the published prices to ensure the methodologies were adhered to. See findings in response to Principle 1.1 – 1.3.</p> <p>▶ We performed a walkthrough of the benchmark determination process relevant to the Benchmarks to evidence that the Benchmarks were determined in line with published methodologies.</p> <p>▶ We obtained the Market Surveillance internal procedures to understand the process as described in the LME's response.</p> <p>▶ For a sample of referrals and observations during the Period Under Review we obtained and inspected the evidence of the review and analysis of the observations and referrals submitted by Trading Operations to Market Surveillance.</p> <p>▶ (c), (e) and (f) are not applicable as there is no submitters to the Benchmarks.</p>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
	<p>(f) Encourage parties that submit any market data (“submitters”) to submit all of their market data that falls within the PRA’s criteria for that assessment. PRAs should seek, so far as they are able and is reasonable, that data submitted are representative of the submitters’ actual concluded transactions;</p> <p>(g) Employ a system of appropriate measures so that, to the extent possible, submitters comply with the PRA’s applicable quality and integrity standards for market data.</p>	<p>input data used for the determination of the Benchmarks is bona fide.</p> <p>(e) The LME has internal policy for handling potential instances of market abuse, money laundering and/or potential breaches of the LME Rules. All exclusion of input data from the determination of the Benchmarks is logged.</p> <p>(f) Not applicable as there are no submitters to any of the Benchmarks.</p> <p>(g) Not applicable as there are no submitters to any of the Benchmarks.</p>	
2.3	<p>A PRA should describe and publish with each assessment, to the extent reasonable without delaying a price reporting deadline:</p> <p>(a) A concise explanation, sufficient to facilitate a PRA subscriber’s or market authority’s ability to understand how the assessment was developed, including, at a minimum, the size and liquidity of the physical market being assessed (meaning the number and volume of transactions submitted), the range and average volume and range and average of price, and indicative percentages of each type of market data that have been considered in an assessment; terms referring to the pricing methodology should be included (i.e., “transaction-based”, “spread-based” or “interpolated/extrapolated”);</p> <p>(b) A concise explanation of the extent to which and the basis upon which judgment (i.e., exclusions of data which otherwise conformed to the requirements of the relevant methodology for that assessment, basing prices on spreads or interpolation/extrapolation, or weighting bids or</p>	<p><u>Control objective:</u> To ensure that the LME publishes information relevant to the Benchmark to enable users to understand how the Benchmarks are produced.</p> <p><u>Control procedures:</u> The LME publishes information relevant to the Benchmark to the extent reasonable without prejudicing due publication of the benchmark and as set out in the Benchmark Methodologies.</p> <p>The Benchmark Methodologies includes all relevant information to ensure a benchmark subscriber or competent authority has the appropriate information to understand how the Benchmarks are determined and where other factors such as the use of discretion or expert judgement are available to the administrator.</p> <p>In addition to the published methodologies, the LME disseminate other market information for each metal for key prompt dates such as: volume, last</p>	<ul style="list-style-type: none"> <li>▶ We obtained the Benchmark Methodologies from the LME’s website and inspected them for evidence of the elements as described in the LME’s response.</li> <li>▶ We obtained evidence that the LME published ‘other market information’ such as volume, last traded price and traded highs and lows and is published alongside the Benchmarks.</li> </ul>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
	offers higher than concluded transactions etc.), if any, was used in establishing an assessment.	<p>traded price and traded highs and lows. This gives users additional supplementary information with regards to the input data and in order to ascertain the size and liquidity of the market on which the benchmark determinations are based.</p> <p>All input data, calculations and use of expert judgement in the determination of the Benchmarks is evidenced and logged as part of the LME record retention allowing sufficient audit trails and scrutiny in the event post publication queries are raised by a benchmark subscriber or competent authority.</p>	
Integrity of the Reporting Process			
2.4	<p>A PRA should:</p> <p>(a) Specify the criteria that define who may submit market data to the PRA;</p> <p>(b) Have quality control procedures to evaluate the identity of a submitter and any employee(s) of a submitter who report market data and the authorization of such person(s) to report market data on behalf of a submitter;</p> <p>(c) Specify the criteria applied to employees of a submitter who are permitted to submit market data to a PRA on behalf of a submitter; encourage submitters to submit transaction data from back office functions and seek corroborating data from other sources where transaction data is received directly from a trader;</p> <p>(d) Implement internal controls and written procedures to identify communications between submitters and assessors that attempt to influence an assessment for the benefit of any trading position (whether of the submitter, its employees or any third party), attempt to cause an assessor to</p>	<p>Not applicable as there are no submitters to any of the Benchmarks.</p>	<p>▶ Not applicable.</p>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
	violate the PRA's rules or guidelines or identify submitters that engage in a pattern of submitting anomalous or suspicious transaction data. Procedures should include provision for escalation by the PRA of inquiry within the submitter's company. Controls should include cross-checking market indicators to validate submitted information.		
Assessors			
2.5	A PRA should adopt and have explicit internal rules and guidelines for selecting assessors, including their minimum level of training, experience and skills, as well as the process for periodic review of their competence.	<p>This is applicable to the following families of Benchmarks:</p> <ul style="list-style-type: none"> <li>• Official Prices</li> <li>• Closing Prices</li> <li>• LMEprecious Reference Prices</li> <li>• LPP Prices</li> </ul>	<ul style="list-style-type: none"> <li>▶ We obtained and inspected the selection and assessment criteria and procedures, and internal procedures setting out guidelines for the Assessors, and the Benchmark Assessor Tracker to evidence the LME's response to Principle 2.5 – 2.7.</li> </ul>
2.6	A PRA should have arrangements to ensure its assessments can be produced on a consistent and regular basis.	<p>This is not applicable to the remaining families of Benchmarks since the construct of the benchmarks does not incorporate assessors.</p>	<ul style="list-style-type: none"> <li>▶ We noted during our walkthrough that the LME's response to Principle 2.6 – 2.7 were in line with the defined procedures.</li> </ul>
2.7	A PRA should maintain continuity and succession planning in respect of its assessors in order to ensure that assessments are made consistently and by employees who possess the relevant levels of expertise.	<p><u>Control objective:</u> To ensure quality and integrity of benchmark calculations for the Benchmarks published by the LME where assessors are involved in the production of the Benchmarks.</p> <p><u>Control procedures:</u> The LME maintains up to date procedure manuals for each of the Benchmarks. These procedure manuals are reviewed and approved by the responsible area of management and governance forums.</p> <p>With reference to the specific points in IOSCO Principle 2.5 – 2.7:</p>	<ul style="list-style-type: none"> <li>▶ For a sample of dates during the Period Under Review, we obtained the Trading Operations rota and noted that there was a backup Assessor/Chairman.</li> <li>▶ For a sample of dates during the Period Under Review we performed testing to check that the supervisory sign off process was followed before publication of the relevant Benchmarks.</li> <li>▶ <b>Finding:</b> The LME utilises numerous macro enabled worksheets for calculation of a number of the Benchmarks. As at 7 September 2020 (the date of the previous audit) we noted a lack of End-user computing (EUC) controls over these excel worksheets to protect from</li> </ul>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
		<p>(a) The LME has put in place selection and assessment criteria and procedures to ensure the Assessors are appropriately skilled to carry out their roles in relation to the Benchmark determinations.</p> <p>(b) Through training and ongoing assessment, the Assessors and their pricing are monitored to ensure consistency in the application of pricing waterfalls and the use of expert judgement to protect the integrity of the benchmarks.</p> <p>(c) The LME has in place internal procedures setting out guidelines for the Assessors to ensure consistent determinations. These procedures also set out information regarding succession planning, and the operation of a Trading Operations rota to ensure there are appropriate personnel available for each business day in addition to the primary Assessor/Chairman.</p> <p>(d) The internal control procedures set out the ongoing supervision of Assessors and the appropriate sign-off required for Benchmark dissemination.</p>	<p>unwanted changes which are used on daily basis to calculate and support the Benchmarks.</p> <p>The LME have since implemented the EUC controls including change control, version control and data integrity controls over the spreadsheets where weaknesses were identified by EY. This remediation was partly carried out during the Period Under Review and was completed by January 2021.</p>
Supervision of Assessors			
2.8	<p>A PRA should institute internal control procedures to ensure the integrity and reliability of assessments. At a minimum, such internal controls and procedures should require:</p> <p>(a) The ongoing supervision of individual assessors to ensure that the methodology was properly applied;</p> <p>(b) Procedures for internal sign-off by a supervisor prior to releasing prices for dissemination to the market.</p>	<p>Refer to the LME's response to IOSCO Principle 2.5 – 2.7.</p>	<p>► See response to IOSCO Principle 2.5 – 2.7.</p>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
<b>Audit Trails</b>			
2.9	<p>A PRA should have rules and procedures in place to document contemporaneously relevant information, including:</p> <ul style="list-style-type: none"> <li>(a) All market data;</li> <li>(b) The judgments that are made by assessors in reaching each price assessment;</li> <li>(c) Whether an assessment excluded a particular transaction, which otherwise conformed to the requirements of the relevant methodology for that assessment and the rationale for doing so;</li> <li>(d) The identity of each assessor and of any other person who submitted or otherwise generated any of the above information.</li> </ul>	<p><u>Control objective:</u> To ensure the LME maintains an audit trail of benchmark information for at least 5 years.</p> <p><u>Control procedures:</u> The LME maintains an internal policy setting out the relevant retention requirements including those set out in Principle 2.9 and 2.10. The policy is reviewed and approved by the responsible area of Management and governance forums.</p>	<ul style="list-style-type: none"> <li>▶ We obtained the LME's internal policy relating to record retention and inspected it for the requirements as described in the LME's response.</li> <li>▶ We obtained the LME's record keeping inventory to identify what and where the contemporaneously relevant information as required in Principle 2.9 (a) to (d) are retained.</li> <li>▶ On a sample basis during the Period Under Review, except for the audio and video specifically for the Ring, we tested the back up and disaster recovery procedures as pertained in the record keeping inventory.</li> <li>▶ For the audio and video specifically for the Ring, for a sample of dates Management has evidenced to us that they were able to restore the audio and video files from the archive.</li> <li>▶ Please refer to our findings in response to Principle 1.1 – 1.3.</li> </ul>
2.10	<p>A PRA should have rules and procedures in place to ensure that an audit trail of relevant information is retained for at least five (5) years in order to document the construction of its assessments.</p>		
<b>Conflict of Interests</b>			
2.11	<p>A PRA should document, implement and enforce comprehensive policies and procedures for the identification, disclosure, management and avoidance of conflicts of interest and the protection of integrity and independence of assessments. The policies and procedures should be kept up to date.</p>	<p><u>Control objective:</u> To ensure the LME manages any actual or perceived conflicts of interest in relation to its benchmark activities appropriately.</p>	<ul style="list-style-type: none"> <li>▶ We obtained the LME Group Conflicts of Interest Policy &amp; Register and inspected it for evidence of the LME's response to Principle 2.11 – 2.14.</li> </ul>
2.12	<p>At a minimum, those policies and procedures should:</p> <ul style="list-style-type: none"> <li>(a) Ensure that price assessments are not influenced by the existence of, or potential for, a commercial or personal business relationship or interest</li> </ul>	<p><u>Control procedures:</u> The LME maintains internal policies that describe the arrangements for the identification, management, disclosure and mitigation of conflicts</p>	<ul style="list-style-type: none"> <li>▶ We obtained evidence of the review of the conflict of interest register by LME Compliance at least on annual basis during the Period Under Review.</li> </ul>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
	<p>between the PRA (or its affiliates), its personnel, clients, any market participant or persons connected with them;</p> <p>(b) Ensure that PRA personnel's personal interests and business connections are not permitted to compromise the PRA's functions, including outside employment, travel, and acceptance of entertainment, gifts and hospitality provided by PRA clients or other oil market participants;</p> <p>(c) Ensure, in respect of identified conflicts, appropriate segregation of functions within the PRA by way of supervision, compensation, systems access and information flows</p> <p>(d) Protect the confidentiality of information submitted to or produced by the PRA, subject to the disclosure obligations of the PRA;</p> <p>(e) Prohibit PRA managers, assessors and other employees from contributing to a price assessment by way of engaging in bids, offers and trades on either a personal basis or on behalf of market participants.</p> <p>(f) Effectively address identified conflicts of interest which may exist between its price assessment business (including all staff who perform or otherwise participate in price assessment responsibilities), and any other business of the PRA.</p>	<p>of interests. The policies are reviewed and approved by the responsible area of management and PVC and LPPOC (as appropriate).</p> <p>The policy sets out (on a non-exhaustive basis):</p> <ul style="list-style-type: none"> <li>• a summary of the relevant requirements;</li> <li>• how conflicts of interest, or perceived conflicts of interest, may arise within the LME Group;</li> <li>• guidance on how employees should conduct outside business interests and employment; and</li> <li>• the way in which conflicts of interest should be disclosed and managed.</li> </ul> <p>The Policy is supported by a conflicts of interest register which is reviewed on a periodic basis.</p> <p>The Group PAD Policy sets out that staff within the LME Group and their related persons / related entities are not permitted to engage in any transactions involving LME-listed derivatives at any time.</p> <p>LME employees are required to declare conflicts of interest upon joining in the new starter training and are required to make an annual attestation minimising any issues that might arise with regards to conflicts of interest.</p>	<ul style="list-style-type: none"> <li>▶ We obtained conflict of interest related training material for the training provided by the LME and inspected it for evidence of conflicts of interest as a subject matter within the material.</li> <li>▶ We obtained the LME Operational Risk policy and inspected it for evidence of the three lines of defence model, as described in the LME's response.</li> <li>▶ For a sample of employees involved in the determination of the Benchmarks during the Period Under Review, we obtained and inspected evidence of the attestation to the LME Benchmarks Policy.</li> <li>▶ For a sample of employees involved in the determination of the Benchmarks during the Period Under Review, we obtained and inspected evidence of attestations made by individuals to have read and understood the LME's Conflict of Interest Policy and HKEX Group Personal Account Dealing Policy.</li> <li>▶ We obtained Management's confirmation that there was only 1 new joiner to the LME during the Period Under Review who is involved in the compilation of the Benchmarks.</li> <li>▶ For one new joiner during the Period Under Review we obtained evidence from LME Compliance that they completed training under 'New Starter Induction program.'</li> </ul>
2.14	A PRA should ensure that its other business operations have in place appropriate procedures and mechanisms designed to minimise the likelihood that conflicts of interest will affect the integrity of price assessments.	The LME has adopted a three lines of defence model for managing risks. The first line is the business lines and support functions managing day-to-day risks including the relevant governance committees. Responsibility for the identification, notification, self-assessment and mitigation of risk rests with business areas and their support functions. The second line provides oversight over	



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
		<p>the Compliance and Risk framework. The third line is the Internal Audit.</p> <p>The LME has controls in place to manage user access to systems utilised by the LME in the determination of the Benchmarks. These controls restrict access and changes to those systems and the information contained within (including LMElive, LMEbullion and LMEprice) by authorised personnel only.</p>	<ul style="list-style-type: none"> <li>▶ We obtained the relevant extracts of the minutes of meetings of the LME's Board of Directors and inspected for evidence that the LME Group Conflicts of Interest Policy was subject to annual review and approval by the LME's directors during the Period Under Review.</li> <li>▶ We obtained the LME Group Personal Account Dealing Policy and inspected it for evidence that employees are prohibited from dealing in instruments that refer to the Benchmarks.</li> <li>▶ <b>Finding:</b> As at 7 September 2020 (the date of the previous audit), we noted a lack of procedure to monitor the individuals' PAD declaration to assess if there is a potential conflict in relation to the LME's provision of the Benchmarks. In November 2021, we noted that an enhancement was made to the Conflict of Interest Internal Operating Procedures to reflect the undertaking of PAD monitoring on an annual basis. We have not tested operating effectiveness of the enhanced control as the annual control is ongoing as at the date of our report.</li> </ul> <p><b>Management Response:</b> Whilst procedures were in place to ensure the LME personnel declared any PAD's and a comprehensive Conflicts of Interest Policy and related processes were in place, the LME have since augmented its procedures to provide further controls over conflict management with specific regard to benchmark personnel's PAD. The LME</p>



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Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
			<p>acknowledge that this implementation was completed outside of the Period Under Review but this item is now consider closed.</p> <p>Throughout the Period Under Review, where such potential conflicts were identified, they were at all times managed and recorded in line with the LME's Conflicts of Interest Policy.</p> <ul style="list-style-type: none"> <li>▶ We obtained Management's confirmation that none of the LME's employees personally traded in any prohibited instruments, as per the LME Group Personal Account Dealing Policy, during the Period Under Review.</li> <li>▶ We obtained the LME's IT policies and procedures on change management, user access management, and other IT operations and inspected for evidence of the LME's response.</li> <li>▶ We obtained a sample of new user access requests and access change requests during the Period Under Review and inspected for evidence of the relevant approvals as documented in the request ticket and that user access was appropriately granted.</li> <li>▶ We obtained a sample of user access termination requests during the Period Under Review and inspected whether the user's access to the network, applications, operating systems and databases was disabled or revoked in a timely manner per internal policy.</li> </ul>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
2.15	<p>A PRA should ensure it has appropriate segregated reporting lines amongst its managers, assessors and other employees (as appropriate) and from the appropriate managers to the PRA's most senior level management and its Board (if any), designed to ensure:</p> <p>(a) the PRA satisfactorily implements the requirements listed in these principles; and</p> <p>(b) that responsibilities are clearly defined and do not conflict or cause a perception of conflict.</p>	<p><u>Control objective:</u> To have an organisational structure with clear reporting lines and job responsibilities with appropriate segregation of duties.</p> <p><u>Control procedures:</u> The LME has a clear organisational structure setting out reporting lines and responsibilities amongst management and all other LME employees who report directly or indirectly to the CEO of the LME.</p> <p>The reporting lines are separate from LME Clear and the rest of the LME Group.</p> <p>The LME roles and responsibilities are defined in a consistent manner for all persons involved in the provision of the Benchmarks to protect against conflict or perception of conflict across the LME Group.</p>	<ul style="list-style-type: none"> <li>▶ We obtained the LME organisational structure and inspected it for evidence of a clear and well-defined reporting structure separate from LME Clear and the Group.</li> <li>▶ We obtained the job description for one new joiner to the Trading Operations team involved in the determinations of the Benchmarks and inspected it for evidence of clearly defined roles and responsibilities.</li> </ul>
2.16	<p>A PRA should disclose to its stakeholders as soon as it becomes aware of a conflict of interest arising from the ownership of the PRA.</p>	<p>The LME Conflicts of Interest Policy considers the ownership of the LME within the LME Group.</p> <p>See also the LME's response to Principle 2.15.</p>	<ul style="list-style-type: none"> <li>▶ Refer to response to Principle 2.15.</li> </ul>
Complaints			
2.17	<p>A PRA should have in place and publish written procedures for receiving, investigating and retaining records concerning complaints made about a PRA's assessment process.</p>	<p><u>Control objective:</u> To ensure the LME has effective procedures for handling complaints.</p> <p><u>Control procedures:</u> The LME Complaints Procedures and the Policy on Complaints and Raising Concerns as set out in</p>	<ul style="list-style-type: none"> <li>▶ We obtained the LME's Complaints Procedure and Schedule 7 of the LPP Regulations from the LME's website and inspected them for evidence of the requirements described in the LME's response.</li> </ul>
2.18	<p>Among other things, such complaint mechanisms should ensure that:</p>		<ul style="list-style-type: none"> <li>▶ We obtained Management confirmation that there have been no complaints to</li> </ul>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
	<p>(a) A PRA should have in place a mechanism detailed in a written complaints handling policy, by which its subscribers may submit complaints on whether a specific price assessment is representative of market value, proposed price assessment changes, applications of methodology in relation to a specific price assessment and other editorial decisions in relation to price assessment processes;</p> <p>(b) A PRA should ensure that its written complaints handling policy includes, among other things, the process and target timetable for handling of complaints;</p> <p>(c) Formal complaints made against a PRA and its personnel are investigated by that PRA in a timely and fair manner;</p> <p>(d) The inquiry is conducted independently of any personnel who may be involved in the subject of the complaint;</p> <p>(e) A PRA aims to complete its investigation promptly;</p> <p>(f) A PRA advises the complainant and any other relevant parties of the outcome of the investigation in writing and within a reasonable period;</p> <p>(g) There is recourse to an independent third party appointed by the PRA should a complainant be dissatisfied with the way a complaint has been handled by the relevant PRA or the PRA's decision in the situation no later than six (6) months from the time of the original complaint;</p> <p>(h) All documents relating to a complaint, including those submitted by the complainant as well as a PRA's own record, are retained for a minimum of five (5) years.</p>	<p>Schedule 7 of the LPP Regulations are available on the LME's website.</p> <p>These complaint procedures conform to the IOSCO Principles' requirements and cover all areas of complaints regarding the benchmark determination process. The procedures set out the process for registering a complaint, the conduct and timelines for investigation and reporting of the decision to the relevant person/entity who submitted the complaint and other relevant parties.</p> <p>Records of complaints and complaints-handling are retained for a minimum of 5 years in line with the LME's record retention policies.</p>	<p>the LME with respect to its Benchmarks published during the Period Under Review that could adversely affect the LME's compliance with the IOSCO Principles and adherence to benchmark methodologies.</p>



2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS			
Principle	IOSCO Requirement	LME's Response	EY Evaluation Procedures
2.19	Disputes as to daily pricing determinations, which are not formal complaints, shall be resolved by the PRA with reference to its standard appropriate procedures. If a complaint results in a change in price, that should be communicated to the market as soon as possible.	<p>The LME Price Dispute Procedure sets out how disputes that are not formal complaints are handled. The procedure covers both objections to provisional prices and price disputes. raised in relation to the determination of an LME Benchmark that has been published.</p> <p>For Official Prices and Closing Prices, the LME publishes “provisional” prices, which provides a window in which Members can object prior to the Benchmark being finalised and published via the LME's market data channels.</p> <p>Price disputes are those raised in relation to published Benchmarks. If the dispute results in an adjustment to the LME Benchmark, such adjustments would be made in accordance with the LME's error correction process which, in summary, would (where required) involve the LME publishing a notice to the market identifying the affected LME Benchmark and confirming the corrected value as soon as possible.</p>	<ul style="list-style-type: none"> <li>▶ We performed a walkthrough of the Official Prices and Closing Prices calculation and observed that the objection window is as per the defined methodology for Official Prices &amp; Closing Prices.</li> <li>▶ For a sample of objections, we noted that the objections were responded to the objecting member.</li> <li>▶ We obtained and inspected the LME Price Dispute Procedure to evidence the LME's response.</li> <li>▶ We obtained Management's confirmation that there were no pricing disputes during the Period Under Review.</li> </ul>
<b>Cooperation with Regulatory Authorities</b>			
2.20	Audit trails, other documentation required by these principles and all other relevant information shall be readily available to market authorities in carrying out their regulatory duties and handed over without delay in accordance with applicable law.	Refer to the LME's response to IOSCO Principle 2.9 – 2.10. Any request from market authorities shall be dealt with in an appropriate manner.	<ul style="list-style-type: none"> <li>▶ Please refer to our findings in response to Principle 2.9 – 2.10.</li> </ul>
<b>External Auditing</b>			
2.21	A PRA should appoint an independent, external auditor with appropriate experience and capability to review and report on the PRA's adherence to its stated methodology criteria and with the requirements of the principles. The first resulting audit should be completed within one year of the publication of these principles by IOSCO and its results published within fifteen months of the publication of the principles.	The LME has appointed an independent external auditor with appropriate experience and capability to review and report on the LME's adherence to its stated methodology criteria and with the requirements of the IOSCO Principles. The LME is making this IOSCO Statement of Compliance on a voluntary basis in addition to requirement for audit as set out in Article 19 of Annex II of the BMR.	<ul style="list-style-type: none"> <li>▶ We were appointed by the LME to provide assurance over the LME's compliance with the IOSCO Principles and adherence with benchmark methodologies for the calculation of Benchmarks for the period from 8 September 2020 to 31 December 2021.</li> </ul>



<b>2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS</b>			
<b>Principle</b>	<b>IOSCO Requirement</b>	<b>LME's Response</b>	<b>EY Evaluation Procedures</b>
	Subsequent audits should take place annually and be published three months after each audit is completed with further interim audits carried out as appropriate.		



## Appendix A: The Benchmarks

Benchmark Family	Metals	Prompt Dates	Currency
<b>Official Prices</b>	Aluminium Official Price	Cash, 3M, 3WD1, 3WD2, 3WD3	USD
	Aluminium Alloy Official Price	Cash, 3M, 3WD1	
	Aluminium US Premium Official Price	3WM1, 3WM4 and 3WM15	
	Aluminium West-Europe Premium Official Price	3WM1, 3WM4 and 3WM15	
	Aluminium East-Asia Premium Official Price	3WM1, 3WM4 and 3WM15	
	Aluminium South-East Asia Premium Official Price	3WM1, 3WM4 and 3WM15	
	Cobalt Official Price	Cash, 3M, 15M	
	Copper Official Price	Cash, 3M, 3WD1, 3WD2, 3WD3	
	NASAAC Official Price	Cash, 3M, 3WD1	
	Nickel Official Price	Cash, 3M, 3WD1, 3WD2, 3WD3	
	Lead Official Price	Cash, 3M, 3WD1, 3WD2, 3WD3	
	Tin Official Price	Cash, 3M, 15M	
	Zinc Official Price	Cash, 3M, 3WD1, 3WD2, 3WD3	
	Official Settlement Price for all metals (except Aluminium Premiums)	Cash 3WM1	
Official Settlement Price for Aluminium Premiums			



Benchmark Family	Metals	Prompt Dates	Currency
<b>Closing Prices</b>	Aluminium Aluminium Alloy Aluminium US Premium Aluminium West-Europe Premium Aluminium East-Asia Premium Aluminium South-East Asia Premium Cobalt Copper NASAAC Nickel Lead Tin Zinc	Cash, 3M, 3WM1 – 3WM24 inclusive Cash, 3M, 3WM1 – 3WM24 inclusive 3WM1-3WM15 inclusive 3WM1-3WM15 inclusive 3WM1-3WM15 inclusive 3WM1-3WM15 inclusive Cash, 3M, 3WM1-3WM15 Cash, 3M, 3WM1-3WM24 Cash, 3M, 3WM1-3WM24 Cash, 3M, 3WM1-3WM24 Cash, 3M, 3WM1-3WM24 Cash, 3M, 3WM1-3WM15 Cash, 3M, 3WM1-3WM24	USD
<b>Notional Average Prices</b>	Aluminium Aluminium Alloy Copper NASAAC Nickel Lead Tin Zinc	M1 – M64 M1 – M28 M1 – M64 M1 – M28 M1 – M28 M1 – M16 M1 – M16 M1 – M28	USD



Benchmark Family	Metals	Prompt Dates	Currency
<b>Monthly Average Settlement Prices</b>	Aluminium Aluminium Alloy Cobalt Copper NASAAC Nickel Lead Tin Zinc	Cash, 3M, 3WD1, 3WD2, 3WD3 Cash, 3M, 3WD1 Cash, 3M, 15M Cash, 3M, 3WD1, 3WD2, 3WD3 Cash, 3M, 3WD1 Cash, 3M, 3WD1, 3WD2, 3WD3 Cash, 3M, 3WD1, 3WD2, 3WD3 Cash, 3M, 15M Cash, 3M, 3WD1, 3WD2, 3WD3	USD
<b>LMEprecious Reference Prices<sup>3</sup></b>	Gold – AM/Midday/PM Silver – AM/Midday/PM	Daily	USD
<b>LPP Prices</b>	LBMA Platinum – AM/PM LBMA Palladium – AM/PM	Daily	USD

<sup>3</sup> The LME ceased the publication of LMEprecious Reference Prices on 22 January 2021.