



To: All members and other interested parties

Ref: 22/147

Classification: Trading General

Date: 20 May 2022

Subject: **PRICING DOCUMENTATION UPDATES FOLLOWING LME NOTICES 21/111 AND 21/153**

Summary

1. This Notice informs Members and other interested parties, including users of LME-administered benchmarks, of non-material updates to the LME's benchmark documentation relating to the Official Prices, Closing Prices, Monthly Average Settlement Prices ("**MASPs**") and Notional Average Prices ("**NAPs**") benchmark families ("**Benchmark Documentation**"). The main changes reflect the: (i) introduction of daily price limits across the LME's Execution Venues; (ii) corresponding introduction of a Disruption Events framework; and (iii) LME's decision in Notice 21/111 to move Closing Prices permanently to electronic determination, and the LME has also made a small number of further administrative amendments.

Defined Terms

2. Terms not otherwise defined in this Notice shall have the meaning ascribed to them in the rules and regulations of the LME ("**Rulebook**") or the *Benchmark Administration – Definitions* document ("**Definitions**") available on the LME Website, and in each case as amended from time to time.

Background

3. In Notice 22/064, the LME implemented daily price limits for all physically deliverable metals on the LME, with further information set out in Notice 22/067 and Notice 22/080. As a result of the introduction of daily price limits, the LME correspondingly introduced a Disruption Events framework in Notice 22/064, supplemented by Notices 22/067 and 22/068 and restated in Notice 22/092, to address the effect of the operation of daily price limits, where they are hit in either direction, on the establishment of Official Prices and Closing Prices. Additionally, Notice 22/092 provided further guidance on how MASPs, NAPs and Monthly Moving Average Price ("**MMAPs**") for all Contracts will be calculated where a Disruption Event has occurred. These changes have been reflected, where required, in the Benchmark Documentation. The LME has, in addition to these changes, taken the opportunity to make the further administrative and non-material changes set out in paragraphs 9-11 below.
4. Updated BMR Documentation is set out in the Appendices to this Notice (as listed in paragraph 5 below) for information, and has been published on the LME Website at <https://www.lme.com/en/company/market-regulation/benchmark-regulation>.

BMR Documentation Updates

5. In order to give effect to the changes summarised above and detailed further below, updates are being made with immediate effect to the Benchmark Documentation, as follows:
 - (a) **Benchmark Defined Terms** – Appendix 1A (redline) and 1B (clean);
 - (b) **Official Prices Benchmark Statement** – Appendix 2A (redline) and 2B (clean);
 - (c) **Official Prices Benchmark Methodology** – Appendix 3A (redline) and 3B (clean);



- (d) **Closing Prices Benchmark Statement** – Appendix 4A (redline) and 4B (clean);
- (e) **Closing Prices Benchmark Methodology**; Appendix 5B (clean only)¹;
- (f) **MASPs Benchmark Statement** – Appendix 6A (redline) and 6B (clean);
- (g) **MASPs Benchmark Methodology** – Appendix 7A (redline) and 7B (clean);
- (h) **NAPs Benchmark Statement** – Appendix 8A (redline) and 8B (clean);
- (i) **NAPs Benchmark Methodology** – Appendix 9A (redline) and 9B (clean);
- (j) **Benchmark Changes and Cessation Procedure** – Appendix 10A (redline) and 10B (clean).

6. The revised Benchmark Documentation has, in parallel with the publication of this Notice, been published on the LME Website.

Introduction of daily price limits and Disruption Events framework (Official Prices, Closing Prices, MASPs and NAPs)

7. As further detailed in Notice 22/064, the LME implemented daily price limits for all base metal outright Contracts, on all Execution Venues. Where the Closing Prices are determined using trading activity primarily from LMEselect, the establishment of these prices may be constrained by the daily price limits for the relevant outright Contracts in the event that these limits are hit. Where it is determined that a Disruption Event has occurred, Disrupted Closing Prices for the relevant metal shall be published for that Business Day. Accordingly, the amendments to the BMR Documentation reflect the implementation of both daily price limits and the Disruption Events framework.

Reflecting the decision to move Closing Prices permanently to electronic determination (Closing Prices only)

8. The LME issued a Discussion Paper on Market Structure (the “**Discussion Paper**”) in January 2021 (Notice 21/011) which, amongst other things, ultimately resulted in the LME taking the decision that the Closing Prices should move permanently to electronic determination. For the reasons set out in paragraph 13 of the Discussion Paper Outcomes Notice (Notice 21/111 or the “**Outcomes Notice**”), and in order to minimise market disruption, the LME did not update the Closing Prices Benchmark Documentation when the Outcomes Notice was published. As set out in Notice 21/111, the LME intends to consult in due course on the evolution of the Closing Prices electronic methodology. Ahead of this, and in order to simplify the consultation process from a market participant perspective, the LME has now updated the Closing Prices Benchmark Documentation to reflect the decision set out in the Outcomes Notice.

Further administrative amendments

(a) Business continuity arrangements

9. The business continuity procedures which were previously set out in the *Policy for establishing (a) the Official Prices on LMEselect in the event the Ring is not available or disrupted; and (b) the Cash-Settled Future Daily Settlement Price for Cash-Settled Futures in the event that trading is disrupted on LMEselect during the relevant Pricing Period* (the “**BCP Policy**”) ², have been embedded within each applicable Pricing Methodology. As at the date of this Notice, the BCP Policy is therefore withdrawn in its entirety and users of LME prices should instead have regard to the business continuity procedures sections of the applicable Pricing Methodology.
10. In relation to the Closing Prices, the LME has sought to include additional detail on existing aspects of the business continuity procedures. These changes are not considered to be material and are being made to provide further transparency and clarification to aid market participants’ understanding in relation to the

¹ A redline version is available on request from benchmarks@lme.com, but has not been appended to this Notice as the administrative amendments needed to transpose the primary methodology from its previous location in Notice 21/041 have required extensive (albeit non-material) changes to the Closing Prices Benchmark Methodology.

² Appendix 1 of Notice 21/041.



existing business continuity approach and the information that would be considered for the determination of the Closing Prices where the LME is unable to establish them basis from LMEselect activity.

(b) Ring price banding

11. Paragraph 4.6.1 in each of the Official Prices and Closing Prices methodologies has been deleted. These paragraphs previously set out a Ring-specific “price banding” framework that could – at the LME’s discretion – be used to apply price bands to the trading of less volatile metals in the Ring. As the Ring price banding framework has not been utilised, and with the recent introduction of daily price limits (as described above), the Ring price banding mechanism has been removed from the methodologies.

Effective Date

12. The versions of the BMR Documentation appended to this Notice shall apply with immediate effect.

General

13. If Members or other interested parties have any questions or requests for further clarification regarding this Notice, please contact Trading Operations at tradingoperations@lme.com.

James Macdonald

Head of Trading Operations

cc: Board directors

Ring Dealers Committee

User Committee



Benchmark Defined Terms

Appendix 1A (redline)

Appendix 1B (clean)



Benchmark Administration – Definitions

1 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. LME publishes various prices that fall within the definition of “benchmark” pursuant to the UK Benchmarks Regulation (“**BMR**”)¹.

This document sets out the key definitions and terms used in connection with benchmarks that are administered by the LME, in its capacity as Administrator. As defined below these terms are common across all of the benchmarks administered by the LME. They are not exhaustive, and should be read in conjunction with the benchmark-specific terms that are defined within each LME benchmark statement and each benchmark methodology, as applicable.

2 Definitions

Term	Definition
Administrator	The London Metal Exchange (or any successor or assignee), acting as the “administrator” of a Benchmark, as such term is defined in article 3(1)(6) of the BMR. References to “administered” and “administration” shall be construed accordingly.
Aluminium Premiums	Collective term for Aluminium US Premium, Aluminium West-Europe Premium, Aluminium East-Asia Premium and Aluminium South-East Asia Premium.
Benchmark	An index that is categorised as a “benchmark” under article 3(1)(3) of the BMR, and which is administered by the Administrator.
Benchmark Changes and Cessation Procedure	The procedure pursuant to which the LME shall consult on proposed changes to, and cessations of, a Benchmark.
Benchmark Family	A “family of benchmarks” as defined under article 3(1)(4) of the BMR, meaning a group of benchmarks provided by the same administrator and determined from input data of the same nature which provides specific measures of the same or similar market or economic reality.
Benchmark Methodology	The benchmark methodology required by the BMR and which describes the process that will be used to determine each Benchmark. A separate Benchmark Methodology is provided for each Benchmark Family and shall be published on the LME’s BMR Website.

¹ As defined more fully in section 2.



Benchmark Statement	The benchmark statement required by article 27(1) of the BMR, which sets out key information for each Benchmark. A separate Benchmark Statement is provided for each Benchmark Family and shall be published on the LME's BMR Website.
BMR	Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, together with Commission Delegated Regulations supplementing that Regulation (including, without limitation, Commission Delegated Regulations (EU) Nos 2018/65, 2018/1643 and 2020/1816), in each case to the extent that such have been incorporated in UK law pursuant to the European Union (Withdrawal) Act 2018 and as modified by UK Statutory Instruments, following the UK's exit from the European Union.
BMR Website	The section of the LME Website that provides BMR-related content and materials (including, amongst other things, Benchmark Statements and Benchmark Methodologies) as updated from time to time and which currently has the website address https://www.lme.com/Abouten/Company/Market-Regulation/Benchmark-Regulationregulation .
Business Day	Any day (except Saturday, Sunday and any public holiday in the UK, and any day that the LME declares not to be a Business Day).
Cash	Shall have the meaning set out in the LME Rulebook.
Category 1 Member	Shall have the meaning set out in the LME Rulebook.
Category 2 Member	Shall have the meaning set out in the LME Rulebook.
Category 3 Member	Shall have the meaning set out in the LME Rulebook.
Category 4 Member	Shall have the meaning set out in the LME Rulebook.
Closing Prices	The end of day value determined for certain Prompt Dates for each of the physically deliverable metal futures that are tradeable on the LME's venues, as detailed further in the Closing Prices Benchmark Methodology.
commodity benchmark	A "commodity benchmark" as defined under article 3(1)(23) of the BMR.



Contract Specifications	The economic characteristics of each Contract, as set out in the LME Rulebook.
Contract	Shall have the meaning set out in the LME Rulebook.
contribution of input data	The provision of input data by a third party, where such input data is not readily available to the Administrator, or to another person for the purposes of passing to the Administrator, that is required in connection with the determination of a Benchmark, and is provided for that purpose, as defined in article 3(1)(8) of the BMR.
<u>daily price limits</u>	<u>The daily upper and lower price limits in either direction for outright Contracts in all physically deliverable metals on all Execution Venues, as set out and updated by Notice from time to time.</u>
Dealer	Shall have the meaning set out in the LME Rulebook.
<u>Disruption Event</u>	<u>Any event that causes the LME to notify the market that an Official Price or Closing Price for a base metal has been disrupted on a particular Business Day as defined by Notice from time to time and the term “Disrupted [relevant price]” shall be interpreted accordingly.</u>
Electronic Pricing Commencement Determination	A determination made by the LME at any time following the occurrence of a Ring Price Liquidity Event and subject to Regulation 5.5 and 5.5A of Part 3 of the LME Rulebook, that one or more Official Prices shall move permanently to electronic determination, basis the business continuity methodology for Official Prices that is in force when the Electronic Pricing Commencement Determination is made.
Execution Venue(s)	The <u>Each or all of: the</u> LME Ring, inter-office market or electronic trading platform; LMEselect, as applicable in the context.
Executive Risk Committee or ERIC	The LME committee whose role is to advise the LME and LME Clear Executive Committees on key risk management elements and to assist the Chief Risk Officer in ensuring all risks across the business are captured and appropriately managed.
Expert Judgement	The exercise of discretion and any determination made by the Administrator with respect to the use of data in determining a Benchmark by using a standard of judgement, which shall consist of (1) acting in good faith and in a commercially reasonable manner; (2) to the extent practicable, reflecting the commercial objective of the Benchmark and market practice; and (3) to the extent



	practicable, promoting consistency in the exercise of discretion and the making of determinations in respect of the Benchmark. For the avoidance of doubt, the term “using a standard of judgement” shall exclude any actions taken by LME personnel in the determination of a Benchmark where such actions are taken pursuant to a documented process.
index	An “index” within the meaning of article 3(1)(1) of the BMR.
input data	Data in respect of the value of one or more underlying assets, or prices, including estimated prices, quotes, committed quotes or other values, used by the Administrator to determine a benchmark, as defined in article 3(1)(14) of the BMR.
ISIN	International Securities Identification Number.
Kerb	Trading that occurs on the Ring after the end of the morning and afternoon Ring sessions.
LME	The London Metal Exchange.
LME Clear	LME Clear Limited, the clearing house appointed by the LME to clear Contracts.
LME Future	A Metal Future or Premium Contract, as such terms are defined in the LME Rulebook.
LMEprecious Future	A physically settled LMEprecious futures contract, as defined in the LME Rulebook.
LMEselect	A system provided by the LME to enable the anonymous electronic trading of contracts by LME participants.
LME Rulebook	The Rules and Regulations of the London Metal Exchange as updated from time to time and which can be found on the LME Website.
LME Warehouse	A warehouse used to store LME approved brands of metal, which themselves are used as the underlying assets for physically-settled contracts traded on the LME.
LME Website	The website of the LME as updated from time to time and which currently has the website address https://www.lme.com/ .
Lot	Shall have the meaning set out in the LME Rulebook.

material change	A significant or fundamental change to a Benchmark Methodology, which the Administrator, in its sole discretion, has determined would cause the relevant Benchmark to no longer be consistent with its primary objective and/or cause the underlying commodity referenced by the relevant Benchmark to no longer be represented by the Benchmark in the manner originally intended.
Member	Shall have the meaning set out in the LME Rulebook.
Monthly Average Future (MAF)	Monthly average futures contracts that are tradeable on the LME’s execution venues.
<u>Month End Disruption Event</u>	<u>Is where a Disruption Event occurs on the last business day of the month as defined by Notice from time to time.</u>
<u>MVR</u>	<u>Minimum volume requirement.</u>
NASAAC	North American Special Aluminium Alloy Contract.
Objection Window	The period during which certain users may object to provisional prices for the following Benchmark Families: <ul style="list-style-type: none"> • Official Prices • Closing Prices • Cash-Settled Futures Daily Settlement Prices Please see the relevant Benchmark Methodology for further details.
Official Prices	Reference prices determined for certain Prompt Dates for each of the physically deliverable metal futures tradeable on the LME’s venues, as detailed further in the Official Prices Benchmark Methodology.
Official Settlement Prices	The Official Price offer for the Cash Prompt Date, as detailed further in the Official Prices Benchmark Methodology.
Pricing and Valuations Committee	A sub-committee of the Executive Risk Committee of the LME which is responsible for advising on key pricing risks and issues.
Prompt Date	Shall have the meaning set out in the LME Rulebook, unless otherwise defined within a Benchmark Statement or Benchmark Methodology.
Quotations Committee	A sub-set of Trading Operations personnel who are responsible for determining Closing Prices and Official Prices.



regulated data	“regulated-data” within the meaning of article 3(1)(24) of the BMR.
Ring	An LME open-outcry trading venue, with “Ring session” referring to the period on the Ring during which specified metals may be traded. The time and duration of Ring sessions are set out on the LME Website from time to time.
Ring Price Liquidity Event	Those criteria, set out by the Exchange by Notice from time to time, that if triggered would permit the LME to exercise its powers to issue an Electronic Pricing Commencement Determination. As at the date of this version of the Definitions, the Ring Price Liquidity Events are set out in LME Notice 21/153.
SFTP	Secure File Transfer Protocol.
Traded Average Price Option or TAPO	Exchange traded and cleared contracts which settle financially based on the average of the daily LME Official Settlement Prices for the relevant month.
Trading Operations	The LME team responsible for day to day pricing activities at the LME.
trading period	A window during which trading of a certain Contract takes place.
Underlying Metal	<p>Means:</p> <p>a) in relation to the benchmarks comprising the Official Prices, Closing Prices, Notional Average Prices and Monthly Average Settlement Prices Benchmark Families, the The relevant physical metal identified in the applicable Contract Specification in Part 6 of the LME Rulebook; and</p> <p>in relation to the benchmarks comprising the Cash Settled Futures Benchmark Family, the relevant metal identified in the applicable Contract Specification name in Part 6C or 6D of the LME Rulebook.</p>
VWAP	Volume weighted average price.

3 Document Change History

Version	Date
1.0	02/12/2019



Version	Date
1.1	15/01/2021
1.2	06/09/2021
<u>2.0</u>	<u>20/05/2022</u>



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Benchmark Administration – Definitions

1 Introduction

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Benchmark Methodology	The benchmark methodology required by the BMR and which describes the process that will be used to determine each Benchmark. A separate Benchmark Methodology is provided for each Benchmark Family and shall be published on the LME’s BMR Website.

¹ As defined more fully in section 2.



Benchmark Statement	The benchmark statement required by article 27(1) of the BMR, which sets out key information for each Benchmark. A separate Benchmark Statement is provided for each Benchmark Family and shall be published on the LME's BMR Website.
BMR	Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, together with Commission Delegated Regulations supplementing that Regulation (including, without limitation, Commission Delegated Regulations (EU) Nos 2018/65, 2018/1643 and 2020/1816), in each case to the extent that such have been incorporated in UK law pursuant to the European Union (Withdrawal) Act 2018 and as modified by UK Statutory Instruments, following the UK's exit from the European Union.
BMR Website	The section of the LME Website that provides BMR-related content and materials (including, amongst other things, Benchmark Statements and Benchmark Methodologies) as updated from time to time and which currently has the website address https://www.lme.com/en/Company/Market-Regulation/Benchmark-regulation .
Business Day	Any day (except Saturday, Sunday and any public holiday in the UK, and any day that the LME declares not to be a Business Day).
Cash	Shall have the meaning set out in the LME Rulebook.
Category 1 Member	Shall have the meaning set out in the LME Rulebook.
Category 2 Member	Shall have the meaning set out in the LME Rulebook.
Category 3 Member	Shall have the meaning set out in the LME Rulebook.
Category 4 Member	Shall have the meaning set out in the LME Rulebook.
Closing Prices	The end of day value determined for certain Prompt Dates for each of the physically deliverable metal futures that are tradeable on the LME's venues, as detailed further in the Closing Prices Benchmark Methodology.
commodity benchmark	A "commodity benchmark" as defined under article 3(1)(23) of the BMR.



Contract Specifications	The economic characteristics of each Contract, as set out in the LME Rulebook.
Contract	Shall have the meaning set out in the LME Rulebook.
contribution of input data	The provision of input data by a third party, where such input data is not readily available to the Administrator, or to another person for the purposes of passing to the Administrator, that is required in connection with the determination of a Benchmark, and is provided for that purpose, as defined in article 3(1)(8) of the BMR.
daily price limits	The daily upper and lower price limits in either direction for outright Contracts in all physically deliverable metals on all Execution Venues, as set out and updated by Notice from time to time.
Dealer	Shall have the meaning set out in the LME Rulebook.
Disruption Event	Any event that causes the LME to notify the market that an Official Price or Closing Price for a base metal has been disrupted on a particular Business Day as defined by Notice from time to time and the term “Disrupted [<i>relevant price</i>]” shall be interpreted accordingly.
Electronic Pricing Commencement Determination	A determination made by the LME at any time following the occurrence of a Ring Price Liquidity Event and subject to Regulation 5.5 and 5.5A of Part 3 of the LME Rulebook, that one or more Official Prices shall move permanently to electronic determination, basis the business continuity methodology for Official Prices that is in force when the Electronic Pricing Commencement Determination is made.
Execution Venue(s)	Each or all of: the LME Ring, inter-office market or electronic trading platform LMEselect, as applicable in the context.
Executive Risk Committee or ERIC	The LME committee whose role is to advise the LME and LME Clear Executive Committees on key risk management elements and to assist the Chief Risk Officer in ensuring all risks across the business are captured and appropriately managed.
Expert Judgement	The exercise of discretion and any determination made by the Administrator with respect to the use of data in determining a Benchmark by using a standard of judgement, which shall consist of (1) acting in good faith and in a commercially reasonable manner; (2) to the extent practicable, reflecting the commercial objective of the Benchmark and market practice; and (3) to the extent



	practicable, promoting consistency in the exercise of discretion and the making of determinations in respect of the Benchmark. For the avoidance of doubt, the term “using a standard of judgement” shall exclude any actions taken by LME personnel in the determination of a Benchmark where such actions are taken pursuant to a documented process.
index	An “index” within the meaning of article 3(1)(1) of the BMR.
input data	Data in respect of the value of one or more underlying assets, or prices, including estimated prices, quotes, committed quotes or other values, used by the Administrator to determine a benchmark, as defined in article 3(1)(14) of the BMR.
ISIN	International Securities Identification Number.
Kerb	Trading that occurs on the Ring after the end of the morning and afternoon Ring sessions.
LME	The London Metal Exchange.
LME Clear	LME Clear Limited, the clearing house appointed by the LME to clear Contracts.
LME Future	A Metal Future or Premium Contract, as such terms are defined in the LME Rulebook.
LMeselect	A system provided by the LME to enable the anonymous electronic trading of contracts by LME participants.
LME Rulebook	The Rules and Regulations of the London Metal Exchange as updated from time to time and which can be found on the LME Website.
LME Warehouse	A warehouse used to store LME approved brands of metal, which themselves are used as the underlying assets for physically-settled contracts traded on the LME.
LME Website	The website of the LME as updated from time to time and which currently has the website address https://www.lme.com/ .
Lot	Shall have the meaning set out in the LME Rulebook.
material change	A significant or fundamental change to a Benchmark Methodology, which the Administrator, in its sole discretion, has determined would cause the relevant Benchmark to no longer be consistent with its primary objective and/or cause

	the underlying commodity referenced by the relevant Benchmark to no longer be represented by the Benchmark in the manner originally intended.
Member	Shall have the meaning set out in the LME Rulebook.
Monthly Average Future (MAF)	Monthly average futures contracts that are tradeable on the LME's execution venues.
Month End Disruption Event	Is where a Disruption Event occurs on the last business day of the month as defined by Notice from time to time.
MVR	Minimum volume requirement.
NASAAC	North American Special Aluminium Alloy Contract.
Objection Window	<p>The period during which certain users may object to provisional prices for the following Benchmark Families:</p> <ul style="list-style-type: none"> • Official Prices • Closing Prices • Cash-Settled Futures Daily Settlement Prices <p>Please see the relevant Benchmark Methodology for further details.</p>
Official Prices	Reference prices determined for certain Prompt Dates for each of the physically deliverable metal futures tradeable on the LME's venues, as detailed further in the Official Prices Benchmark Methodology.
Official Settlement Prices	The Official Price offer for the Cash Prompt Date, as detailed further in the Official Prices Benchmark Methodology.
Pricing and Valuations Committee	A sub-committee of the Executive Risk Committee of the LME which is responsible for advising on key pricing risks and issues.
Prompt Date	Shall have the meaning set out in the LME Rulebook, unless otherwise defined within a Benchmark Statement or Benchmark Methodology.
Quotations Committee	A sub-set of Trading Operations personnel who are responsible for determining Closing Prices and Official Prices.
regulated data	"regulated-data" within the meaning of article 3(1)(24) of the BMR.



Ring	An LME open-outcry trading venue, with “Ring session” referring to the period on the Ring during which specified metals may be traded. The time and duration of Ring sessions are set out on the LME Website from time to time.
Ring Price Liquidity Event	Those criteria, set out by the Exchange by Notice from time to time, that if triggered would permit the LME to exercise its powers to issue an Electronic Pricing Commencement Determination. As at the date of this version of the Definitions, the Ring Price Liquidity Events are set out in LME Notice 21/153.
SFTP	Secure File Transfer Protocol.
Traded Average Price Option or TAPO	Exchange traded and cleared contracts which settle financially based on the average of the daily LME Official Settlement Prices for the relevant month.
Trading Operations	The LME team responsible for day to day pricing activities at the LME.
trading period	A window during which trading of a certain Contract takes place.
Underlying Metal	The relevant physical metal identified in the applicable Contract Specification in Part 6 of the LME Rulebook.
VWAP	Volume weighted average price.

3 Document Change History

Version	Date
1.0	02/12/2019
1.1	15/01/2021
1.2	06/09/2021
2.0	20/05/2022



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Official Prices Benchmark Statement

Appendix 2A (redline)

Appendix 2B (clean)



LME Official Prices – Benchmark Statement

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Statement is published pursuant to Article 27 of the BMR in respect of the LME Official Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

~~18 October 2021~~

20 May 2022

2.3 Review of Benchmark Statement

This Benchmark Statement is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually. Additionally, this Benchmark Statement will be reviewed and updated whenever there are material changes to the information set out in it, or in the corresponding Benchmark Methodology.

2.4 Key Definitions

This section of this Benchmark Statement should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the [LME’s BMR](#) Website. Any capitalised terms not defined in this section of the Benchmark Statement shall have the meaning given to them in the Definitions.

In this Benchmark Statement, the following specific definitions shall apply:

“**Prompt Date**” means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises Official Prices as identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Statement, ~~the Benchmarks were as follows~~ Official Prices are determined in relation to a number of Prompt Dates relating to the following:



- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Aluminium US Premium;
- (d) LME Aluminium West-Europe Premium;
- (e) LME Aluminium East-Asia Premium;
- (f) LME Aluminium South-East Asia Premium;
- (g) LME Cobalt;
- (h) LME Copper;
- (i) LME NASAAC;
- (j) LME Nickel;
- (k) LME Lead;
- (l) LME Tin; and
- (m) LME Zinc.

The Prompt Dates for each of the Official Prices set out above that are Benchmarks are listed on the [LME's BMR LME](#) Website. Note that all Prompt Dates for which Official Prices are determined are Benchmarks.

The LME also publishes an Official Settlement Price for each of the Official Prices, as a subset of the Official Prices comprising this Benchmark Family.

3.2 ISINs

ISIN codes have not been assigned to the Official Prices.

4 Regulatory Information

4.1 Classification

The Official Prices each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each of the Official Prices utilises input data available to the LME, primarily including trading activity data. However, the Official Prices are not categorised as “regulated data” Benchmarks, nor are the Official Prices determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the Official Prices comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.

The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“ESG”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.



4.2 Rationale for the Benchmark(s)

The assessment of trading activity on LME's Execution Venues during the ~~period which constitutes Ring 2 ("R2")~~¹ periods defined by the Benchmark Methodology (supported by making reference to all other available data sources where there is insufficient input data) is considered to be the most appropriate pricing methodology for these Benchmarks because trading activity during ~~the relevant five minute trading window~~ those periods represents the net balance of global risk (both on the buy and sell side) being offset in the LME market. ~~R2~~ This is ~~the~~ a key pricing point for LME users and, in particular, physical participants who use the bid/offer mechanism for pricing OTC physical contracts and settlement.

In the context of Official Prices determined from Ring activity, as bids and offers may have been placed but not yet resulted in a concluded trade at the end of the trading window, the Ring bid/offer methodology is considered to be the most reflective approach to pricing rather than (for example) relying on concluded trades as input data.

4.3 Market Reality Measured

The Official Prices are a global reference for physical contracts for the sale and purchase of certain metals. The Cash Seller's Official Prices are also used to settle physically deliverable Futures Contracts traded on the LME (and in this context are referred to as the Official Settlement Prices).

The Official Prices reflect the USD value of one metric tonne of the relevant metal for the relevant Prompt Date, where the metal must comply with the requirements of the applicable LME contract specification set out in the LME Rulebook. Metals are tradeable on the LME's Execution Venues, ~~with the~~ where trading is subject to such controls including, but not limited to, daily price limits, that are designed to support a fair and orderly market. The Official Prices ~~reflecting~~ reflect trading activity during specified periods and ~~taking into account the~~ supply and demand for the relevant metal (and contract expiry) at that point in time. ~~The specified~~ The times at which business can be conducted on LME's Execution Venues are set out on the LME Website and the periods ~~in which metals are traded (and for~~ which activity is taken into account in determining the Official Prices) is set out ~~on~~ in the ~~LME Website~~ Trading Times and Dates Benchmark Methodology.

The Official Settlement Price for each metal shall be the offer price of the Cash Prompt Date that is determined as the Official Price².

4.4 Geographical Boundaries

The LME contracts resulting from trading on the LME's Execution Venues are capable of being settled by being physically delivered into any LME Warehouse. As such, the Benchmark(s) may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may include, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

¹ For Cobalt, it is the period which constitutes Ring 1 ("R1").

² As there is no Cash Prompt Date for Aluminium Premiums, the Official Settlement Price for Aluminium Premiums is the offer price for the third Wednesday in Month 1 Prompt Date that is determined as the Official Price.



4.5 Other Information

The population of participants active in trading on the LME's Execution Venues is difficult to determine definitively as trading may take place both directly on the LME's Execution Venues (by Members) as well as indirectly (by the wider market participant population, through Members). Only Category 1 Members are capable of trading in the Ring, however (for their own account and on behalf of their clients). An up-to-date list of members of the LME by category can be found on the LME Website.

Market information about LME Futures, including market and exchange open interest, is published on the LME Website on a daily basis.

5 Benchmark Methodology

5.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology which can be found on the LME Website. The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.

5.2 Expert Judgement

The LME Quotations Committee is permitted to exercise Expert Judgement in the determination of the constituent Benchmarks. The Official Prices Benchmark Methodology and supporting internal policies and procedures that underpin the determination of Official Prices, are structured with the intent of minimising, as far as feasible whilst ensuring that Official Price determinations are reflective, the need for Expert Judgement.

As part of the LME's BMR control framework and governance arrangements, the Pricing and Valuations Committee periodically receives data and trend analysis on the frequency, nature of, and extent to which, Expert Judgement is used in relation to Benchmark determinations.

5.3 Assessors

The Quotations Committee is responsible for Benchmark determinations. Quotations Committee members are subject to extensive competence and training requirements. Amongst other things, these requirements are designed to ensure the consistency of Benchmark determinations where Expert Judgement is applied. Quotations Committee members are also subject to periodic performance reviews.

The LME Official Prices are determined by the Quotations Committee Chairman in conjunction with other members of the Quotations Committee. Once the Official Prices are agreed by the Chairman and published as 'provisional', a member of the Quotations Committee will complete a 4-eyed check to agree the prices prior to publication of the final Official Prices.

5.4 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and



pricing objection windows during which ~~Members may submit~~ objections in relation to provisionally-determined prices may be submitted. Further information on objections, including the applicable ~~objections periods~~ Objection Window, is set out in the Official Prices Benchmark Methodology.

Users of the constituent Benchmarks (who do not have the right to object to provisionally determined prices) may dispute a Benchmark after final publication. Final publication times and corresponding dispute periods are detailed in the Official Prices Benchmark Methodology.

In the event that the LME becomes aware that an incorrect price has been published to the market as final, the LME will follow its standard procedure assessing the potential impact of the error and, where appropriate, for notifying the market (and market data vendors) of the error and correcting the published price accordingly.

6 Limitations of the Benchmarks

Some of the metals that are tradeable on LME's Execution Venues are less liquid than others. Consequently, relatively limited data may be available to the Quotations Committee for these metals, on which to determine an Official Price. However, the LME has sought to take steps to support robust and reliable Benchmark determination through the implementation of various measures including (but not limited to):

- (a) permitting the Quotations Committee to use Expert Judgement (or relevant data from alternative LME Execution Venues) where appropriate; and
- (b) designing the Benchmark methodology to accommodate circumstances in which there is limited input data (for example, by applying ~~expert judgement~~ Expert Judgement to facilitate unreflective bids and offers to be excluded from Benchmark determinations).

It is not possible to foresee all circumstances in which one or more of the Benchmarks may become unreliable, but a non-exhaustive list may include (depending on the circumstances):

- (a) an exceptional market event (e.g. an extreme volatility event or unforeseen event in the physical market);
- (b) where a trading halt is called on the LME;
- (c) insufficient input data (i.e. no bid, offers or transactions) to determine a price (notwithstanding the contingencies the LME has put in place); and
- (d) significant divergence between the Benchmark and the relevant OTC price(s).

The LME has implemented measures aimed at addressing unexpected market events and also supporting the continued provision of the Benchmarks during these events including, for example, implementing a fast markets policy which would apply in circumstances of significant volatility. Furthermore ~~section 4.1 of~~, the Benchmark Methodology sets out how the Official Price shall be determined where there is insufficient input data and where business continuity procedures have been invoked.

Additionally, in certain circumstances where a Disruption Event has been declared, the LME may instead publish prices that shall not formally constitute Official Prices. An Official Price that is determined to be subject to a Disruption Event will be referred to in relevant LME communications as a "Disrupted Official Price" in order to make the status of these prices clear.



Disrupted Official Prices caused either by a market suspension or due to the daily price limits, may differ to prices that would have been established should suspension not have occurred or where controls that impacted the trading activity on LME Execution Venues had not been in place. As such, these Disrupted Official Prices may not be completely reflective of trading activity observed. The LME will also continue to publish Disrupted Official Prices on its market data feeds. Further information relating to Disruption Events can be found on the LME Website.

7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.

Details of the LME Benchmark Changes and Cessation Procedure, which details the LME's arrangements for consulting on proposed changes and cessations (where applicable), can be found on the [LME's BMR](#) Website.

7.1 Ring Price Liquidity Events

The LME also notes that it has the right to transition one or more Official Price Benchmarks permanently to electronic determination without consultation if a Ring Price Liquidity Event occurs.

8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

<p>Item 1. Name of the benchmark administrator</p>	<p>The London Metal Exchange</p>
<p>Item 2. Type of benchmark or family of benchmarks.</p>	<p>Commodity Benchmarks</p>
<p>Item 3. Name of the benchmark or family of benchmarks.</p>	<p>Official Prices</p>
<p>Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>



<p>Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
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Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.

(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.

Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.

(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.

Item 8. Data and standards used

(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.

SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE TRANSITION AND UK PARIS-ALIGNED BENCHMARKS



Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.
(c) overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.

SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:

(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.
(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.



(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021. Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.

9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	06/09/2021
1.4	18/10/2021
<u>2.0</u>	<u>20/05/2022</u>

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“**Prompt Date**” means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises Official Prices as identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Statement, Official Prices are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;



- (c) LME Aluminium US Premium;
- (d) LME Aluminium West-Europe Premium;
- (e) LME Aluminium East-Asia Premium;
- (f) LME Aluminium South-East Asia Premium;
- (g) LME Cobalt;
- (h) LME Copper;
- (i) LME NASAAC;
- (j) LME Nickel;
- (k) LME Lead;
- (l) LME Tin; and
- (m) LME Zinc.

The Prompt Dates for each of the Official Prices set out above that are Benchmarks are listed on the LME Website. Note that all Prompt Dates for which Official Prices are determined are Benchmarks.

The LME also publishes an Official Settlement Price for each of the Official Prices, as a subset of the Official Prices comprising this Benchmark Family.

3.2 ISINs

ISIN codes have not been assigned to the Official Prices.

4 Regulatory Information

4.1 Classification

The Official Prices each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each of the Official Prices utilises input data available to the LME, primarily including trading activity data. However, the Official Prices are not categorised as “regulated data” Benchmarks, nor are the Official Prices determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the Official Prices comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.

The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“**ESG**”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.

4.2 Rationale for the Benchmark(s)

The assessment of trading activity on LME’s Execution Venues during the periods defined by the Benchmark Methodology (supported by making reference to all other available data sources where there is insufficient input data) is considered to be the most appropriate pricing methodology for these Benchmarks because trading activity during those periods represents the



net balance of global risk (both on the buy and sell side) being offset in the LME market. This is a key pricing point for LME users and, in particular, physical participants who use the bid/offer mechanism for pricing OTC physical contracts and settlement.

In the context of Official Prices determined from Ring activity, as bids and offers may have been placed but not yet resulted in a concluded trade at the end of the trading window, the Ring bid/offer methodology is considered to be the most reflective approach to pricing rather than (for example) relying on concluded trades as input data.

4.3 Market Reality Measured

The Official Prices are a global reference for physical contracts for the sale and purchase of certain metals. The Cash Seller's Official Prices are also used to settle physically deliverable Futures Contracts traded on the LME (and in this context are referred to as the Official Settlement Prices).

The Official Prices reflect the USD value of one metric tonne of the relevant metal for the relevant Prompt Date, where the metal must comply with the requirements of the applicable LME contract specification set out in the LME Rulebook. Metals are tradeable on the LME's Execution Venues where trading is subject to such controls including, but not limited to, daily price limits, that are designed to support a fair and orderly market. The Official Prices reflect trading activity during specified periods and the supply and demand for the relevant metal (and contract expiry) at that point in time. The times at which business can be conducted on LME's Execution Venues are set out on the LME Website and the periods for which activity is taken into account in determining the Official Prices is set out in the Benchmark Methodology.

The Official Settlement Price for each metal shall be the offer price of the Cash Prompt Date that is determined as the Official Price¹.

4.4 Geographical Boundaries

The LME contracts resulting from trading on the LME's Execution Venues are capable of being settled by being physically delivered into any LME Warehouse. As such, the Benchmark(s) may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may include, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

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¹ As there is no Cash Prompt Date for Aluminium Premiums, the Official Settlement Price for Aluminium Premiums is the offer price for the third Wednesday in Month 1 Prompt Date that is determined as the Official Price.



Market information about LME Futures, including market and exchange open interest, is published on the LME Website on a daily basis.

5 Benchmark Methodology

5.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology which can be found on the LME Website. The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.

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5.4 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and pricing objection windows during which objections in relation to provisionally-determined prices may be submitted. Further information on objections, including the applicable Objection Window, is set out in the Official Prices Benchmark Methodology.

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Some of the metals that are tradeable on LME's Execution Venues are less liquid than others. Consequently, relatively limited data may be available to the Quotations Committee for these metals, on which to determine an Official Price. However, the LME has sought to take steps to support robust and reliable Benchmark determination through the implementation of various measures including (but not limited to):

- (a) permitting the Quotations Committee to use Expert Judgement (or relevant data from alternative LME Execution Venues) where appropriate; and
- (b) designing the Benchmark methodology to accommodate circumstances in which there is limited input data (for example, by applying Expert Judgement to facilitate unreflective bids and offers to be excluded from Benchmark determinations).

It is not possible to foresee all circumstances in which one or more of the Benchmarks may become unreliable, but a non-exhaustive list may include (depending on the circumstances):

- (a) an exceptional market event (e.g. an extreme volatility event or unforeseen event in the physical market);
- (b) where a trading halt is called on the LME;
- (c) insufficient input data (i.e. no bid, offers or transactions) to determine a price (notwithstanding the contingencies the LME has put in place); and
- (d) significant divergence between the Benchmark and the relevant OTC price(s).

The LME has implemented measures aimed at addressing unexpected market events and also supporting the continued provision of the Benchmarks during these events including, for example, implementing a fast markets policy which would apply in circumstances of significant volatility. Furthermore, the Benchmark Methodology sets out how the Official Price shall be determined where there is insufficient input data and where business continuity procedures have been invoked.

Additionally, in certain circumstances where a Disruption Event has been declared, the LME may instead publish prices that shall not formally constitute Official Prices. An Official Price that is determined to be subject to a Disruption Event will be referred to in relevant LME communications as a "Disrupted Official Price" in order to make the status of these prices clear. Disrupted Official Prices caused either by a market suspension or due to the daily price limits, may differ to prices that would have been established should suspension not have occurred or where controls that impacted the trading activity on LME Execution Venues had not been in place. As such, these Disrupted Official Prices may not be completely reflective of trading activity observed. The LME will also continue to publish Disrupted Official Prices on its market data feeds. Further information relating to Disruption Events can be found on the LME Website.



7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.

Details of the LME Benchmark Changes and Cessation Procedure, which details the LME's arrangements for consulting on proposed changes and cessations (where applicable), can be found on the LME Website.

7.1 Ring Price Liquidity Events

The LME also notes that it has the right to transition one or more Official Price Benchmarks permanently to electronic determination without consultation if a Ring Price Liquidity Event occurs.

8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

Item 1. Name of the benchmark administrator	The London Metal Exchange
Item 2. Type of benchmark or family of benchmarks.	Commodity Benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Official Prices
Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level.



The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.

(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.

Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.

(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.

Item 8. Data and standards used

(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.

SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE TRANSITION AND UK PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
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(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.
(c) overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.

SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:

(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.
(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.
(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021.



	Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.
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9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	06/09/2021
1.4	18/10/2021
2.0	20/05/2022



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Official Prices Benchmark Methodology

Appendix 3A (redline)

Appendix 3B (clean)



LME Official Prices – Benchmark Methodology

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Methodology is published pursuant to Annex II of the BMR in respect of the LME Official Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

~~6 September 2021~~
20 May 2022

2.3 Review of Benchmark Methodology

This Benchmark Methodology is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually.

Proposed changes to the Benchmark Methodology (whether resulting from the annual review process or otherwise) shall be handled in accordance with the **Benchmark Changes and Cessation Procedure**. The **Benchmark Changes and Cessation Procedure** sets out how, and the circumstances in which, the LME will seek market participant views in relation to a proposed change. Proposed changes shall be considered by the LME Pricing and Valuations Committee.

2.4 Key Definitions

This Benchmark Methodology should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the [LME’s BMR](#) Website. Any capitalised terms not specifically defined in the Benchmark Methodology shall have the meaning given to them in the Definitions.

In this Benchmark Methodology, the following specific definitions shall apply:

“MVR Threshold”	<u>means the minimum volume required to be transacted in the Pricing Period for a VWAP to be considered, as set out in Appendix 1.</u>
“Prompt Date MVVR”	means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract <u>the Minimum Visible Volume Requirements set out in</u>



Appendix 1 which represent the traded volume or visible volume placed on bids/offers per Contract to be considered by the Quotations Committee to assist in prioritising relevant input data when considering price moves or with conflicting spreads across forward months.

“Official Prices BC Methodology”

means the methodology set out in Appendix 4~~2~~ by which the Official Prices shall be ~~determined~~established where business continuity procedures are invoked (see paragraph 4.~~8~~9).

“Pricing Period”

means the defined period of time on the Business Day for the relevant metal as set out in Appendix 1.

“Pricing Waterfall”

means the process described in the Official Prices BC Methodology.

“Prompt Date”

means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises Official Prices as identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Methodology, ~~the Benchmarks were as follows~~Official Prices are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Aluminium US Premium;
- (d) LME Aluminium West-Europe Premium;
- (e) LME Aluminium East-Asia Premium;
- (f) LME Aluminium South-East Asia Premium;
- (g) LME Cobalt;
- (h) LME Copper;
- (i) LME NASAAC;
- (j) LME Nickel;
- (k) LME Lead;
- (l) LME Tin; and
- (m) LME Zinc.

The Prompt Dates for each of the Official Prices set out above that are Benchmarks are listed on the ~~LME's BMR~~LME Website. Note that all Prompt Dates for which Official Prices are determined are Benchmarks.



The LME also publishes an Official Settlement Price for each of the ~~metals listed~~ above, as a subset of the Official Prices comprising this Benchmark Family.

4 Benchmark Methodology

4.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Methodology is used each Business Day to calculate the Official Price for the relevant Prompt Dates. ~~Each Official Price constitutes a Benchmark.~~ The LME publishes a bid and offer Official Price for each relevant Prompt Date.

For each of the metals listed above, the applicable contract specifications that govern factors such as the quality of the metal to be delivered, can be found in the LME Rulebook.

The Official Settlement Price for each metal shall be the offer price of the Cash Prompt Date that is determined as the Official Price¹.

4.1.1 General Methodology

The ~~specified periods in~~ times at which metals business can be conducted on LME's Execution Venues (including the Ring sessions and trading times) are traded (and set out on the LME Website and the periods for which activity is taken into account in determining the Official Prices) is set out on the LME Website – Trading Times and Dates in this Benchmark Methodology.

The Official Price for each relevant Prompt Date shall typically be determined basis the last bid and offer price quoted during Ring 2 (“R2”) (or in the case of Cobalt, Ring 1 (“R1”)) where sufficient information is available and at all times at the LME's absolute discretion in consideration of the points set out below, including paragraph 4.1.2.

For each metal (or in the case of Aluminium, each category of Aluminium), the Quotations Committee shall allocate Committee members to oversee trading in each Prompt Date. At the close of the trading period for each metal, each member of the Quotations Committee who has participated in the Ring session will electronically submit their view of the last bid and offer price quoted for the relevant Prompt Date.

Following the submissions, the Chairman of the Quotations Committee (or their designate) shall, in accordance with the LME's pricing procedures:

- (a) consider their own view (and the views of other members of the Quotations Committee) of the last bid and offer price quoted for each Prompt Date;
- (b) apply Expert Judgement, where appropriate, to the consideration of whether the last bid and offered price quoted for the relevant Prompt Date (if relevant) is an accurate reflection of the prevailing market price whilst being mindful of the activity across the curve and the daily price limits for that metal;
- (c) consider the Bid/Offer Spread Adjustment (as set out in paragraph 4.1.2); and
- (d) consider other information available, including but not limited to, spread trading information and last valuations,

¹ As there is no Cash Prompt Date for Aluminium Premiums, the Official Settlement Price for Aluminium Premiums shall be the offer price for the third Wednesday in Month 1 Prompt Date determined as the Official Price.



for the purpose of determining a provisional price.

Where sufficient information is not available from Ring activity to determine the provisional price for each relevant Prompt Date as set out above, provisional prices shall be determined as follows whilst being mindful of the activity across the curve and the daily price limits for that metal and using Expert Judgement where appropriate:

For Cash and 3 Months for Metal Futures

For the 3 Month Prompt Date, the provisional price shall be determined basis the Cash Prompt Date and the Cash to 3 Month spread quoted in the Ring, where available. Where the Cash Prompt Date and/or the Cash to 3 Month spread is unquoted in the Ring, the provisional price shall be determined using available trading information from the LME's electronic trading platform in conjunction with last night's valuation.

For the Cash Prompt Date, the provisional price shall be determined basis the 3 Month Prompt Date and the Cash to 3 Month spread quoted in the Ring, where available. Where the 3 Month Prompt Date and/or the Cash to 3 Month spread is unquoted in the Ring, the provisional price shall be determined using available trading information from the LME's electronic trading platform in conjunction with last night's valuation.

For Month 1 for Aluminium Premium Contracts

For Month 1 for Aluminium Premium Contracts, the provisional price shall be determined basis last night's valuation.

For all other Prompt Dates

The provisional price for all other Prompt Dates that are published as part of the Official Prices shall be determined using as its input data, the provisional price for the 3 Month Prompt Date established on the basis of the methodology above, in conjunction with any available spread information.

Five Provisional prices and objections

Approximately five minutes after the end of the relevant trading period, the LME shall publish a provisional price on the wallboards surrounding the Ring. These prices shall be clearly identified in green. The Cash and 3 Month provisional price prices, and spread information relating to forward months will also be published contemporaneously to the wider market through LME licensed data vendors. The provisional price shall remain displayed on the wallboards for approximately five minutes, during which time Dealers may submit objections verbally to the Chairman of the Quotations Committee in relation to the provisional price (the Objection Window). The LME shall be under no obligation to consider objections that are received by the LME outside the Objection Window. No amendment to the provisional price shall be made during the Objection Window.

Five Approximately five minutes following the publication of the provisional price, the Official Price shall be published on the wallboards surrounding the Ring. This price will be displayed in red. The Official Prices will also be published contemporaneously to the wider market through LME licensed data vendors. Where, however, the LME has received an objection to a provisional price during the Objection Window and is therefore unable to publish the Official Price approximately five minutes following the publication of the provisional price, the LME shall publish the Official Price as soon as practicable following the Quotations Committee's consideration of the objection.



Where an objection is upheld on the provisional 3 Month Official Price for a metal and the price has changed as a result, this may also impact the determination of the final Official Price for any Prompt Date that has used the 3 Month Official Price as input data.

The Quotations Committee will use digital video and audio technology to support its consideration of objections received during the Objection Window, and shall be permitted to exercise its discretion to determine the appropriate course of action.

Publication of Official Prices

The timings for publication of provisional and final Official Prices are as follows:

Metal	Provisional Prices (from) (London time - approximate)	Final Official Prices (London time - approximate)
Cobalt	12:30	12:35
Copper	12:40	12:45
Aluminium Alloy and NASAAC	12:45	12:50
Tin	12:50	12:55
Lead	12:55	13:00
Zinc	13:00	13:05
Aluminium	13:05	13:10
Nickel	13:10	13:15
Aluminium Premiums	13:15	13:20

4.1.2 Bid/Offer Spread Adjustment

When determining the Official Prices, the Chairman of the Quotations Committee may use Expert Judgement where appropriate, to ensure that the bid/offer spread of any Official Price is reflective of prevailing market prices, irrespective of the spread of the last bid and offer price quoted during R2 (or R1 for Cobalt). For example, it is possible that immediately prior to the end of the relevant trading period, the bid/offer spread is wider and therefore not reflective of the other orders generally executed during the relevant trading period.

4.1.3 Minimum Volume Thresholds

There is no minimum volume threshold for the determination of the Official Prices. The Official Price is not based on transactions (except [where pricing using the Official Prices BC Methodology](#) and to the extent that transactions may be referenced from the LME's electronic



trading platform where sufficient information is not available from Ring activity or used in the bid/offer spread adjustment as set out in paragraph 4.1.2).

MVR Thresholds applicable to the Official Prices BC Methodology are set out in Appendix 1.

4.2 Relative Importance of Benchmark Criteria

Where sufficient information is available, the Official Price is typically determined basis the last bid and offer price quoted during R2 (except in the case of Cobalt, which is R1) and so when determining the Official Prices, priority shall be given to the last bid and offer price quoted. However, the LME reserves the right to prioritise other inputs at their discretion and to not consider the last bid or offer price quoted where failure to do so would lead to a misleading or unreflective Official Price at the LME's discretion and Expert Judgement.

4.3 Unit of Publication and Rounding

Each of the Official Prices shall be published in USD per metric tonne.

Each of the Official Prices is linked to and based upon the trading activity for the Underlying Metal in the Ring (for more information, see the Benchmark Statement for the Official Prices). ~~In the Ring, each~~ Each concluded contract is capable of being physically delivered in accordance with the specifications set out in the LME Rulebook. In the physical commodity trading market, contracts for the purchase and sale of base metals are generally priced on the basis of a US dollar per metric tonne pricing structure. The LME aims at all times to ensure that its products most accurately reflect market realities and so has determined that US dollars per metric tonne is the most appropriate reference unit for its Official Prices.

The values determined for each of the Official Prices ~~will be rounded to~~ do not require rounding, rather they will represent one tick, being a “minimum price movement”. The “minimum price movement” for each metal is set out in the Contract Specification on the LME ~~website~~ Website.

Where the Official Prices are determined using spread information, they will be rounded as per the rounding protocol set out in Appendix 1.

At approximately 13:10 London time on each day that the Official Prices are published, the LME shall also make available USD/EUR, USD/GBP and USD/JPY FX rates using the snapshot rate published by Reuters at 13:00 London time, to assist Members and clients to perform currency conversions. For the avoidance of doubt, these FX rates are not LME administered rates.

4.4 Expert Judgement

The Official Prices Benchmark Methodology and supporting policies and procedures that underpin the determination of Official Prices are structured with the intent of minimising, as far as feasible whilst ensuring that Official Price determinations are reflective, the need for Expert Judgement or discretion.

The Chairman may apply Expert Judgement to adjust an Official Price for a base metal where not doing so would result in the price falling outside of the daily price limits and resulting in a Disruption Event being declared by the LME.



As part of the LME's BMR control framework and governance arrangements, the Pricing and Valuations Committee periodically receives data and trend analysis on the frequency, nature of, and extent to which, Expert Judgement is used in relation to Benchmark determinations.

4.5 Assessors

The Quotations Committee is responsible for Benchmark determinations. Quotations Committee members are subject to extensive competence and training requirements. Amongst other things, these requirements are designed to ensure the consistency of Benchmark determinations where Expert Judgement is applied. Quotations Committee members are also subject to periodic performance reviews.

The Official Prices are determined by the Quotations Committee Chairman in conjunction with other members of the Quotations Committee. Once the Official Prices are agreed by the Chairman and published as 'provisional', a member of the Quotations Committee will complete a 4-eyed check to agree the prices prior to publication of the final Official Prices.

4.6 Exclusion of Transaction Data

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, for example (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 a Benchmark determination. Where such behaviours or circumstances are identified, the LME may exclude the relevant data from the input data set that is used to determine the relevant Benchmark.

Any decision to exclude transaction data would be made in accordance with the procedures and controls set out in paragraph 4.5 above.

4.6.1 Ring Price Banding

~~The LME is under an obligation to maintain a fair and orderly market on its trading venues. To support the LME's oversight, the LME has implemented ring price banding for illiquid base metals traded on the Ring. These price bands are designed to maintain and protect the integrity of the Official Prices by providing price parameters to help prevent extreme price movements when there is a minimal number of market participants active in relation to the relevant metal.~~

~~The Quotations Committee is responsible for determining which metals are subject to these price bands. Metals that are subject to these price bands are communicated to Members by Notice from time to time (the "Ring Price Band Contracts").~~

~~Therefore, when considering whether or not a bid or offer for a Ring Price Band Contract quoted at the close is reflective, the Quotations Committee shall be bound by the ring price banding.~~

~~The ring price banding works as follows:~~

~~From time to time, the Quotations Committee will determine an anchor price for each Ring Price Band Contract (the "Anchor Price"). The Anchor Price will be determined by the Quotations Committee using the most up to date information available from all three of the LME's trading venues, and not just the Ring. An Anchor Price can be adjusted at the Quotations Committee's~~



~~discretion, including on an intra-day basis. The Quotations Committee will then determine a ring price band (the “Band”) for each of the Ring Price Band Contracts, which effectively forms an upper and lower limit on the pricing of the relevant Ring Price Band Contract, and which seeks to prevent significant price fluctuations caused by a small number of bids or offers having an unreflective impact on the Official Prices due to its illiquid character.~~

~~Subject to the Pricing Committee’s general right to use Expert Judgement, where the last bid or offer immediately prior to the close of a Ring Price Band Contract is outside of the Bands (the “Bid/Offer Price”), the Official Price shall only be set at that Bid/Offer Price when the quantity of Lots offered by the Dealer at that Bid/Offer Price is equal to, or greater than, 10. If the Dealer’s bid or offer at the Bid/Offer Price is for fewer than 10 Lots, the Official Price shall be set at the relevant value at the appropriate end of the Band.~~

~~Illustrative Case Study~~

~~The Anchor Price for the three-month Copper contract is set at US\$5,000 with a Band of US\$500. This creates an upper limit of US\$5,500 and a lower limit of US\$4,500.~~

- ~~• If a Dealer bids or offers US\$4,400 or US\$5,600 on the three-month Cash Copper contract without disclosing the tonnage they wish to buy or sell, the Official Price would be limited to US\$4,500 or US\$5,500 (i.e. the limit of the Band).~~
- ~~• If a Dealer bids or offers US\$4,400 or US\$5,600 on the three-month Cash Copper contract and the Dealer is bidding for, or offering, less than 10 Lots, the Official Price would be limited to US\$4,500 or US\$5,500 (i.e. the limit of the Band).~~
- ~~• If a Dealer bids or offers US\$4,400 or US\$5,600 on the three-month Cash Copper contract and the Dealer is bidding for, or offering, 10 Lots or more, then the quoted price can be considered by the Quotations Committee for the purpose of setting the Official Price (i.e. the Band does not apply).~~

4.7 Pricing Disputes

Pursuant to paragraph 17 of Annex II of the BMR, users of the constituent Benchmarks may dispute a daily pricing determination. Considering the right of some users to object to a provisional price during the Objections Window (see paragraph 4.1.1), users who had that right may not dispute a daily pricing determination unless:

- the subject matter of the dispute relates to a matter that occurred after the Objections Window, for example:
 - the dispute relates to the way in which an objection the user made during the Objections Window was handled by the LME; or
 - the dispute relates to a change that was made to the provisional price before the final price was published; or
- the dispute has been raised on behalf of an underlying client who did not itself have the right to object to provisionally determined prices during the Objections Window for that benchmark.

For the avoidance of doubt, where a user did not have the right to object during the Objections Window, they shall not be prohibited from disputing a daily pricing determination.

Any such dispute must be submitted to the LME in writing to closingprices@lme.com and must be received within thirty (30) minutes of publication via the LME’s market data channels of the



Official Price that is the subject of the dispute. The user must include sufficient information to enable the LME to properly consider the dispute, including (but not limited to) the specific Official Price that is the subject of the dispute, and the reason for the dispute.

4.8 Disruption Events²

A Disruption Event in any Prompt Date for the Official Prices shall typically apply to all Prompt Dates for which Official Prices are determined for that metal. However, the LME may apply Expert Judgement to make its determination. Where the LME has determined that a Disruption Event has occurred, the LME will inform the market as soon as possible following its determination.

Where a Disruption Event has been declared, the LME may instead publish prices that shall not formally constitute Official Prices. An Official Price that is determined to be subject to a Disruption Event will be referred to in relevant LME communications as a “Disrupted Official Price” in order to make the status of these prices clear. The LME will also continue to publish Disrupted Official Prices on its market data feeds.

The LME may set the Disrupted Official Price at a price at its absolute discretion using Expert Judgement, however, the Disrupted Official Price will typically be determined as follows:

Disruption Event due to daily price limits

For the Cash and 3 Month Official Prices for Metal Futures and Month 1 for Aluminium Premium Contracts

On a given Business Day, where a daily price limit is hit at the end of the Pricing Period by way of a trade taking place at a daily price limit, a bid being placed at an upper limit, or an offer being placed at a lower limit, the Official Price will be determined at that daily price limit for that metal.

For all other Prompt Dates

On a given Business Day, where a daily price limit would be implied to be reached for any Prompt Date in that metal by a combination of an outright and a spread, the Official Price for that Prompt Date will be adjusted to its nearest daily price limit.

Disruption Event due to suspension of trading

Where a Disruption Event has occurred due to the suspension of trading of a base metal on any Business Day (unless the suspension takes effect after the LME has determined the Official Prices for that Business Day and the LME considers the Official Price(s) to be reflective), the Official Prices for each Prompt Date for that metal shall be determined using the last valuation and amended for any date adjustment if appropriate.

Where the Cash Prompt Date is a Disrupted Official Price, this shall also result in a Disrupted Official Settlement Price.

Further information relating to Disruption Events can be found on the LME Website.

² Disruption Events and details set out in this section shall also apply when operating under the Official Prices BC Methodology



4.84.9 Business Continuity Procedures

~~The In the event the LME may calculate is unable to determine the Official Prices for one or more metals using the Official Prices BC Methodology, rather than on the basis of activity in the Ring, methodology as set out above, for example~~ in the event that the Ring is not available, or Ring activity is disrupted by an emergency situation. The, the LME may invoke business continuity procedures and establish the Official Prices for one or more metals using the Official Prices BC Methodology as set out in Appendix 2.

Where business continuity procedures have been invoked, the LME will endeavour to continue establishing the Official Prices for each base Metal Future and each Aluminium Premium Contract at the prescribed times. Where this is not possible, or if Ring trading is disrupted while the Ring is in operation, the LME will communicate revised times for determining the Official Prices for any relevant Metal Future or Aluminium Premium Contract as soon as is practically possible. Any Official Price established in the Ring before the LME's business continuity procedures are invoked may stand, subject to the discretion of the Quotations Committee.

4.94.10 Ring Price Liquidity Event

The LME also notes that it has the right to transition one or more Official Price Benchmarks permanently to electronic determination without consultation if a Ring Price Liquidity Event occurs.

5 Document Change History

Version	Date
1.0	02/12/2019
1.1	15/01/2021
1.2	06/09/2021



<u>APPENDIX 2.0</u>	<u>20/05/2022</u>
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Appendix 1

Ring OFFICIAL PRICES BC METHODOLOGY

The methodology for the establishment of table below sets out the Pricing Periods and rounding protocols applicable to establishing the Official Prices when they are determined using the Benchmark Methodology. These are subject to change from time to time following ongoing review of market activity, approval by the Pricing and Valuations Committee, and consultation where required.

Official Prices		
Metal	Pricing Period	Spreads
		Rounding (\$)
CO	12:20:00.000 – 12:24:59.999	5
CA	12:30:00.000 – 12:34:59.999	0.5
AA	12:35:00.000 – 12:39:59.999	0.5
NA	12:35:00.000 – 12:39:59.999	0.5
SN	12:40:00.000 – 12:44:59.999	1
PB	12:45:00.000 – 12:49:59.999	0.5
ZS	12:50:00.000 – 12:54:59.999	0.5
AH	12:55:00.000 – 12:59:59.999	0.5
NI	13:00:00.000 – 13:04:59.999	1
Aluminium Premiums M1	13:05:00.000 – 13:09:59.999	0.5



Electronic

The table below sets out the Pricing Periods, MVR Thresholds, MVVRs and rounding protocol applicable to establishing the Official Prices when using the Official Prices BC Methodology. These are subject to change from time to time following ongoing review of market activity, approval by the Pricing and Valuations Committee, and consultation where required.

Official Prices (Electronic)						
Metal	Pricing Period	MVR Threshold (lots)		Rounding (\$)		MVVR (Lots)
		Cash	3M	VWAP	Spreads	
CO	12:20:00.000 – 12:24:59.999	5	5	0.5	5	5
CA	12:30:00.000 – 12:34:59.999	25	50	0.5	0.5	50
AA	12:35:00.000 – 12:39:59.999	5	10	0.5	0.5	5
NA	12:35:00.000 – 12:39:59.999	5	10	0.5	0.5	5
SN	12:40:00.000 – 12:44:59.999	5	10	1	1	10
PB	12:45:00.000 – 12:49:59.999	10	25	0.5	0.5	25
ZS	12:50:00.000 – 12:54:59.999	10	25	0.5	0.5	25
AH	12:55:00.000 – 12:59:59.999	25	50	0.5	0.5	100
NI	13:00:00.000 – 13:04:59.999	10	25	1	1	25
Aluminium Premiums M1	13:05:00.000 – 13:09:59.999	5	5	0.5	0.5	5

Appendix 2

Official Prices BC Methodology

To ensure continuity in the publication of the Official Prices, this Official Prices BC Methodology shall be used for the determination of the Official Prices in the event that the Ring is not available, or Ring activity/trading is disrupted, ~~is set out in the 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 PRICE FOR CASH SETTLED FUTURES IN THE EVENT THAT TRADING ON LMESELECT IS DISRUPTED DURING THE RELEVANT~~ by an emergency:

Arrangements for the Cash and 3 Month Official Prices for Metal Futures and Month 1 for Aluminium Premium Contracts

These Benchmarks are determined using a VWAP from transactions on LMEselect during the Pricing Period and where the MVR Threshold is met.

The ~~WINDOW~~ VWAPs will then be rounded up or down, as applicable, in accordance with the rounding protocol set out in Appendix 1. For information on the determination of all other Prompt Dates (for which Official Prices are published ~~on~~) please see below.

Where the relevant MVR Threshold is not met, the Quotations Committee shall determine the Official Price for the affected Prompt Date using the following Pricing Waterfall:

- a) it shall be the last traded price on LMEselect during the Pricing Period if the last traded price is within, or at, the bid/offer³ on the close of the relevant Pricing Period;
- b) if the last traded price on LMEselect during the Pricing Period is outside of the bid/offer on the close of the Pricing Period, then the bid/offer closest to the last traded price will be used;
- c) if the relevant Metal Future or Aluminium Premium Contract is untraded on LMEselect during the Pricing Period, but has traded on LMEselect prior to the Pricing Period and/or where a bid/offer is available at the close of the Pricing Period, the price will be determined using the last trade (or last valuation where untraded) in conjunction with the available bid/offer information to determine the price;
- d) if the relevant Metal Future or Aluminium Premium Contract is untraded on LMEselect during or prior to the Pricing Period and there is no bid and/or offer available on the close of the Pricing Period, the price will be determined using available spread information and the last valuation.

Where:

- a) the LME ~~website and as amended from time to time~~ does not have access to sufficient input data necessary to determine the Official Price; or
- b) a linear approach to the Pricing Waterfall would result in an inaccurate price (in the Quotation Committee's Expert Judgement) or a price determined outside the daily price limits,

³ The terms "bid" and "offer" at all times refers to best bid and best offer active in the market at the close of the Pricing Period.



the LME may set the Official Prices at a price at its absolute discretion, using Expert Judgement which includes, but not limited to, referencing data sources and available spread trading information, including but not limited to inter-office activity and prevailing market prices. In these circumstances, the considerations for Expert Judgement set out in the section entitled *Arrangements for all other Prompt Dates* may apply.

The Official Price will then be rounded up or down, as applicable, in accordance with the rounding protocol set out in Appendix 1.

Arrangements for all other Prompt Dates

The establishment of prices for all other Prompt Dates that are published as part of the Official Prices forward curve will not utilise VWAPs. Rather, they will be determined using the 3 Month outright Official Price established on the basis of the Pricing Waterfall set out above, in conjunction with any available spread information. In establishing the spread information, the Pricing Waterfall will be applied with reference to spread orders and transactions placed or transacted up until the close of the Pricing Period⁴.

Where the Pricing Waterfall is not deemed appropriate, the Quotations Committee may use Expert Judgement in establishing the spread information and for the determination of Closing Prices for the Prompt Dates addressed by this section. Where Expert Judgement is used, the following considerations may apply:

- a) The most active months will form the basis for the forward prices. For the purposes of the determination of the forward months for the Official Prices, the Quotations Committee will give regard to all spread trading activity that has occurred throughout the day in that metal up until the close of the Pricing Period. However, it will give particular regard to trading activity and orders placed towards and at the close of the Pricing Period, particularly where significant volumes have traded and/or where there is established order depth, in the Quotation Committee's view, to represent a fair reflection of prevailing market prices.
- b) Where trades or orders placed do not equate with each other across the forward months resulting in conflicting spreads, the Quotations Committee may use Expert Judgement to adjust the price curve. Such adjustments, which may include disregarding trades and orders as appropriate, will be made having taken into account all relevant trading activity including, but not limited to:
 - i. volume traded or volume placed on bids/offers, with particular regard to activity towards the close of the Pricing Period. The LME may reference the MVVR to assist the Quotations Committee to prioritise relevant input data when considering price moves or with conflicting spreads across forward months;
 - ii. the length of time bids/offers have been visible in the LMEselect order book, with bids/offers that were entered first given priority. This may be used in conjunction with the MVVR;
 - iii. reviewing any orders that are placed in the last minute prior to the close of the Pricing Period that may be disregarded; and

⁴ Only bids/offers placed and transactions concluded up until the end of the Pricing Period on that day will be taken into account for the purposes of determining the spread information. For example, where the Pricing Period is between 12:30:00.000 and 12:34:59.999, the close of the Pricing Period would be up to and including 12:34:59.999.



- iv. the manner in which any price has incrementally moved, with particular regard to activity towards the close of the Pricing Period.
- c) Any trades and/or orders that are deemed to be out of line with prevailing market prices for the forward months will be disregarded by the Quotations Committee at its absolute discretion.
- d) For the purposes of determining the forward months for the Official Prices, the Quotations Committee may validate order and trading activity in LMEselect against other data sources and available spread trading information, including but not limited to inter-office activity and prevailing market prices.

Provisional prices & Objections

When the provisional Official Prices have been established for each Metal Future and each Aluminium Premium Contract, they will be published on the wallboards surrounding the Ring displayed in green and published to LMEselect users via an LMEselect market message as soon as is practically possible after the close of the relevant Pricing Period for that metal (with 5 minutes being the target). LMEselect Member users will then have 5 minutes to raise objections to the provisional prices. If no objections are lodged with the LME during the Objection Window, the status of these prices will become final. If there is an objection lodged with the Quotations Committee, the Prompt Date that has been objected to will remain in green on the wallboards and the objection will be reviewed with the resolution published to LMEselect users via an LMEselect market message.

Objections must be submitted in writing to the Quotations Committee to closingprices@lme.com. The LME shall be under no obligation to consider objections which are received by the LME outside the Objection Window. No amendment to the provisional price shall be made during the Objection Window. The Quotations Committee shall be permitted to exercise its discretion to determine the appropriate course of action.

Approximately five minutes following the publication of the provisional price, the Official Price shall be published on the wallboards surrounding the Ring. This price will be displayed in red. The Official Prices will also be published contemporaneously to the wider market through LME licensed data vendors. Where, however, the LME has received an objection to a provisional price during the Objection Window and is therefore unable to publish the Official Price approximately five minutes following the publication of the provisional price, the LME shall publish the Official Price as soon as practicable following the Quotations Committee's consideration of the objection.



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LME Official Prices – Benchmark Methodology

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Methodology is published pursuant to Annex II of the BMR in respect of the LME Official Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

20 May 2022

2.3 Review of Benchmark Methodology

This Benchmark Methodology is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually.

Proposed changes to the Benchmark Methodology (whether resulting from the annual review process or otherwise) shall be handled in accordance with the **Benchmark Changes and Cessation Procedure**. The **Benchmark Changes and Cessation Procedure** sets out how, and the circumstances in which, the LME will seek market participant views in relation to a proposed change. Proposed changes shall be considered by the LME Pricing and Valuations Committee.

2.4 Key Definitions

This Benchmark Methodology should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website. Any capitalised terms not specifically defined in the Benchmark Methodology shall have the meaning given to them in the Definitions.

In this Benchmark Methodology, the following specific definitions shall apply:

“**MVR Threshold**” means the minimum volume required to be transacted in the Pricing Period for a VWAP to be considered, as set out in Appendix 1.

“**MVVR**” the Minimum Visible Volume Requirements set out in Appendix 1 which represent the traded volume or visible volume placed on bids/offers per Contract to be considered by the Quotations Committee to assist in prioritising relevant input data when considering price moves or with conflicting spreads across forward months.



“Official Prices BC Methodology”	means the methodology set out in Appendix 2 by which the Official Prices shall be established where business continuity procedures are invoked (see paragraph 4.9).
“Pricing Period”	means the defined period of time on the Business Day for the relevant metal as set out in Appendix 1.
“Pricing Waterfall”	means the process described in the Official Prices BC Methodology.
“Prompt Date”	means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises Official Prices as identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Methodology, Official Prices are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Aluminium US Premium;
- (d) LME Aluminium West-Europe Premium;
- (e) LME Aluminium East-Asia Premium;
- (f) LME Aluminium South-East Asia Premium;
- (g) LME Cobalt;
- (h) LME Copper;
- (i) LME NASAAC;
- (j) LME Nickel;
- (k) LME Lead;
- (l) LME Tin; and
- (m) LME Zinc.

The Prompt Dates for each of the Official Prices set out above that are Benchmarks are listed on the LME Website. Note that all Prompt Dates for which Official Prices are determined are Benchmarks.

The LME also publishes an Official Settlement Price for each of the above, as a subset of the Official Prices comprising this Benchmark Family.

4 Benchmark Methodology

4.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Methodology is used each Business Day to calculate the Official Price for the relevant Prompt Dates. The LME publishes a bid and offer Official Price for each relevant Prompt Date.



For each of the metals listed above, the applicable contract specifications that govern factors such as the quality of the metal to be delivered, can be found in the LME Rulebook.

The Official Settlement Price for each metal shall be the offer price of the Cash Prompt Date that is determined as the Official Price¹.

4.1.1 General Methodology

The times at which business can be conducted on LME's Execution Venues (including the Ring sessions and trading times) are set out on the LME Website and the periods for which activity is taken into account in determining the Official Prices is set out in this Benchmark Methodology.

The Official Price for each relevant Prompt Date shall typically be determined basis the last bid and offer price quoted during Ring 2 ("R2") (or in the case of Cobalt, Ring 1 ("R1")) where sufficient information is available and at all times at the LME's absolute discretion in consideration of the points set out below, including paragraph 4.1.2.

For each metal (or in the case of Aluminium, each category of Aluminium), the Quotations Committee shall allocate Committee members to oversee trading in each Prompt Date. At the close of the trading period for each metal, each member of the Quotations Committee who has participated in the Ring session will electronically submit their view of the last bid and offer price quoted for the relevant Prompt Date.

Following the submissions, the Chairman of the Quotations Committee (or their designate) shall, in accordance with the LME's pricing procedures:

- (a) consider their own view (and the views of other members of the Quotations Committee) of the last bid and offer price quoted for each Prompt Date;
- (b) apply Expert Judgement, where appropriate, to the consideration of whether the last bid and offered price quoted for the relevant Prompt Date (if relevant) is an accurate reflection of the prevailing market price whilst being mindful of the activity across the curve and the daily price limits for that metal;
- (c) consider the Bid/Offer Spread Adjustment (as set out in paragraph 4.1.2); and
- (d) consider other information available, including but not limited to, spread trading information and last valuations,

for the purpose of determining a provisional price.

Where sufficient information is not available from Ring activity to determine the provisional price for each relevant Prompt Date as set out above, provisional prices shall be determined as follows whilst being mindful of the activity across the curve and the daily price limits for that metal and using Expert Judgement where appropriate:

For Cash and 3 Months for Metal Futures

For the 3 Month Prompt Date, the provisional price shall be determined basis the Cash Prompt Date and the Cash to 3 Month spread quoted in the Ring, where available. Where the Cash Prompt Date and/or the Cash to 3 Month spread is unquoted in the Ring, the provisional price

¹ As there is no Cash Prompt Date for Aluminium Premiums, the Official Settlement Price for Aluminium Premiums shall be the offer price for the third Wednesday in Month 1 Prompt Date determined as the Official Price.



shall be determined using available trading information from the LME's electronic trading platform in conjunction with last night's valuation.

For the Cash Prompt Date, the provisional price shall be determined basis the 3 Month Prompt Date and the Cash to 3 Month spread quoted in the Ring, where available. Where the 3 Month Prompt Date and/or the Cash to 3 Month spread is unquoted in the Ring, the provisional price shall be determined using available trading information from the LME's electronic trading platform in conjunction with last night's valuation.

For Month 1 for Aluminium Premium Contracts

For Month 1 for Aluminium Premium Contracts, the provisional price shall be determined basis last night's valuation.

For all other Prompt Dates

The provisional price for all other Prompt Dates that are published as part of the Official Prices shall be determined using as its input data, the provisional price for the 3 Month Prompt Date established on the basis of the methodology above, in conjunction with any available spread information.

Provisional prices and objections

Approximately five minutes after the end of the relevant trading period, the LME shall publish a provisional price on the wallboards surrounding the Ring. These prices shall be clearly identified in green. The Cash and 3 Month provisional prices, and spread information relating to forward months will also be published contemporaneously to the wider market through LME licensed data vendors. The provisional price shall remain displayed on the wallboards for approximately five minutes, during which time Dealers may submit objections verbally to the Chairman of the Quotations Committee in relation to the provisional price (the Objection Window). The LME shall be under no obligation to consider objections that are received by the LME outside the Objection Window. No amendment to the provisional price shall be made during the Objection Window.

Approximately five minutes following the publication of the provisional price, the Official Price shall be published on the wallboards surrounding the Ring. This price will be displayed in red. The Official Prices will also be published contemporaneously to the wider market through LME licensed data vendors. Where, however, the LME has received an objection to a provisional price during the Objection Window and is therefore unable to publish the Official Price approximately five minutes following the publication of the provisional price, the LME shall publish the Official Price as soon as practicable following the Quotations Committee's consideration of the objection.

Where an objection is upheld on the provisional 3 Month Official Price for a metal and the price has changed as a result, this may also impact the determination of the final Official Price for any Prompt Date that has used the 3 Month Official Price as input data.

The Quotations Committee will use digital video and audio technology to support its consideration of objections received during the Objection Window, and shall be permitted to exercise its discretion to determine the appropriate course of action.

Publication of Official Prices

The timings for publication of provisional and final Official Prices are as follows:



Metal	Provisional Prices (from) (London time - approximate)	Final Official Prices (London time - approximate)
Cobalt	12:30	12:35
Copper	12:40	12:45
Aluminium Alloy and NASAAC	12:45	12:50
Tin	12:50	12:55
Lead	12:55	13:00
Zinc	13:00	13:05
Aluminium	13:05	13:10
Nickel	13:10	13:15
Aluminium Premiums	13:15	13:20

4.1.2 Bid/Offer Spread Adjustment

When determining the Official Prices, the Chairman of the Quotations Committee may use Expert Judgement where appropriate, to ensure that the bid/offer spread of any Official Price is reflective of prevailing market prices, irrespective of the spread of the last bid and offer price quoted during R2 (or R1 for Cobalt). For example, it is possible that immediately prior to the end of the relevant trading period, the bid/offer spread is wider and therefore not reflective of the other orders generally executed during the relevant trading period.

4.1.3 Minimum Volume Thresholds

There is no minimum volume threshold for the determination of the Official Prices. The Official Price is not based on transactions (except where pricing using the Official Prices BC Methodology and to the extent that transactions may be referenced from the LME's electronic trading platform where sufficient information is not available from Ring activity or used in the bid/offer spread adjustment as set out in paragraph 4.1.2).

MVR Thresholds applicable to the Official Prices BC Methodology are set out in Appendix 1.

4.2 Relative Importance of Benchmark Criteria

Where sufficient information is available, the Official Price is typically determined basis the last bid and offer price quoted during R2 (except in the case of Cobalt, which is R1) and so when determining the Official Prices, priority shall be given to the last bid and offer price quoted. However, the LME reserves the right to prioritise other inputs at their discretion and to not consider the last bid or offer price quoted where failure to do so would lead to a misleading or unreflective Official Price at the LME's discretion and Expert Judgement.



4.3 Unit of Publication and Rounding

Each of the Official Prices shall be published in USD per metric tonne.

Each of the Official Prices is linked to and based upon the trading activity for the Underlying Metal in the Ring (for more information, see the Benchmark Statement for the Official Prices). Each concluded contract is capable of being physically delivered in accordance with the specifications set out in the LME Rulebook. In the physical commodity trading market, contracts for the purchase and sale of base metals are generally priced on the basis of a US dollar per metric tonne pricing structure. The LME aims at all times to ensure that its products most accurately reflect market realities and so has determined that US dollars per metric tonne is the most appropriate reference unit for its Official Prices.

The values determined for each of the Official Prices do not require rounding, rather they will represent one tick, being a “minimum price movement”. The “minimum price movement” for each metal is set out in the Contract Specification on the LME Website.

Where the Official Prices are determined using spread information, they will be rounded as per the rounding protocol set out in Appendix 1.

At approximately 13:10 London time on each day that the Official Prices are published, the LME shall also make available USD/EUR, USD/GBP and USD/JPY FX rates using the snapshot rate published by Reuters at 13:00 London time, to assist Members and clients to perform currency conversions. For the avoidance of doubt, these FX rates are not LME administered rates.

4.4 Expert Judgement

The Official Prices Benchmark Methodology and supporting policies and procedures that underpin the determination of Official Prices are structured with the intent of minimising, as far as feasible whilst ensuring that Official Price determinations are reflective, the need for Expert Judgement or discretion.

The Chairman may apply Expert Judgement to adjust an Official Price for a base metal where not doing so would result in the price falling outside of the daily price limits and resulting in a Disruption Event being declared by the LME.

As part of the LME's BMR control framework and governance arrangements, the Pricing and Valuations Committee periodically receives data and trend analysis on the frequency, nature of, and extent to which, Expert Judgement is used in relation to Benchmark determinations.

4.5 Assessors

The Quotations Committee is responsible for Benchmark determinations. Quotations Committee members are subject to extensive competence and training requirements. Amongst other things, these requirements are designed to ensure the consistency of Benchmark determinations where Expert Judgement is applied. Quotations Committee members are also subject to periodic performance reviews.

The Official Prices are determined by the Quotations Committee Chairman in conjunction with other members of the Quotations Committee. Once the Official Prices are agreed by the



Chairman and published as 'provisional', a member of the Quotations Committee will complete a 4-eyed check to agree the prices prior to publication of the final Official Prices.

4.6 Exclusion of Transaction Data

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, for example (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 a Benchmark determination. Where such behaviours or circumstances are identified, the LME may exclude the relevant data from the input data set that is used to determine the relevant Benchmark.

Any decision to exclude transaction data would be made in accordance with the procedures and controls set out in paragraph 4.5 above.

4.7 Pricing Disputes

Pursuant to paragraph 17 of Annex II of the BMR, users of the constituent Benchmarks may dispute a daily pricing determination. Considering the right of some users to object to a provisional price during the Objections Window (see paragraph 4.1.1), users who had that right may not dispute a daily pricing determination unless:

- (a) the subject matter of the dispute relates to a matter that occurred after the Objections Window, for example:
 - a. the dispute relates to the way in which an objection the user made during the Objections Window was handled by the LME; or
 - b. the dispute relates to a change that was made to the provisional price before the final price was published; or
- (b) the dispute has been raised on behalf of an underlying client who did not itself have the right to object to provisionally determined prices during the Objections Window for that benchmark.

For the avoidance of doubt, where a user did not have the right to object during the Objections Window, they shall not be prohibited from disputing a daily pricing determination.

Any such dispute must be submitted to the LME in writing to closingprices@lme.com and must be received within thirty (30) minutes of publication via the LME's market data channels of the Official Price that is the subject of the dispute. The user must include sufficient information to enable the LME to properly consider the dispute, including (but not limited to) the specific Official Price that is the subject of the dispute, and the reason for the dispute.

4.8 Disruption Events²

A Disruption Event in any Prompt Date for the Official Prices shall typically apply to all Prompt Dates for which Official Prices are determined for that metal. However, the LME may apply Expert Judgement to make its determination. Where the LME has determined that a Disruption Event has occurred, the LME will inform the market as soon as possible following its determination.

² Disruption Events and details set out in this section shall also apply when operating under the Official Prices BC Methodology



Where a Disruption Event has been declared, the LME may instead publish prices that shall not formally constitute Official Prices. An Official Price that is determined to be subject to a Disruption Event will be referred to in relevant LME communications as a “Disrupted Official Price” in order to make the status of these prices clear. The LME will also continue to publish Disrupted Official Prices on its market data feeds.

The LME may set the Disrupted Official Price at a price at its absolute discretion using Expert Judgement, however, the Disrupted Official Price will typically be determined as follows:

Disruption Event due to daily price limits

For the Cash and 3 Month Official Prices for Metal Futures and Month 1 for Aluminium Premium Contracts

On a given Business Day, where a daily price limit is hit at the end of the Pricing Period by way of a trade taking place at a daily price limit, a bid being placed at an upper limit, or an offer being placed at a lower limit, the Official Price will be determined at that daily price limit for that metal.

For all other Prompt Dates

On a given Business Day, where a daily price limit would be implied to be reached for any Prompt Date in that metal by a combination of an outright and a spread, the Official Price for that Prompt Date will be adjusted to its nearest daily price limit.

Disruption Event due to suspension of trading

Where a Disruption Event has occurred due to the suspension of trading of a base metal on any Business Day (unless the suspension takes effect after the LME has determined the Official Prices for that Business Day and the LME considers the Official Price(s) to be reflective), the Official Prices for each Prompt Date for that metal shall be determined using the last valuation and amended for any date adjustment if appropriate.

Where the Cash Prompt Date is a Disrupted Official Price, this shall also result in a Disrupted Official Settlement Price.

Further information relating to Disruption Events can be found on the LME Website.

4.9 Business Continuity Procedures

In the event the LME is unable to determine the Official Prices using the methodology as set out above, for example in the event that the Ring is not available, or Ring activity is disrupted by an emergency situation, the LME may invoke business continuity procedures and establish the Official Prices for one or more metals using the Official Prices BC Methodology as set out in Appendix 2.

Where business continuity procedures have been invoked, the LME will endeavour to continue establishing the Official Prices for each base Metal Future and each Aluminium Premium Contract at the prescribed times. Where this is not possible, or if Ring trading is disrupted while the Ring is in operation, the LME will communicate revised times for determining the Official Prices for any relevant Metal Future or Aluminium Premium Contract as soon as is practically



possible. Any Official Price established in the Ring before the LME's business continuity procedures are invoked may stand, subject to the discretion of the Quotations Committee.

4.10 Ring Price Liquidity Event

The LME also notes that it has the right to transition one or more Official Price Benchmarks permanently to electronic determination without consultation if a Ring Price Liquidity Event occurs.

5 Document Change History

Version	Date
1.0	02/12/2019
1.1	15/01/2021
1.2	06/09/2021
2.0	20/05/2022



Appendix 1

Ring

The table below sets out the Pricing Periods and rounding protocols applicable to establishing the Official Prices when they are determined using the Benchmark Methodology. These are subject to change from time to time following ongoing review of market activity, approval by the Pricing and Valuations Committee, and consultation where required.

Official Prices		
Metal	Pricing Period	Spreads
		Rounding (\$)
CO	12:20:00.000 – 12:24:59.999	5
CA	12:30:00.000 – 12:34:59.999	0.5
AA	12:35:00.000 – 12:39:59.999	0.5
NA	12:35:00.000 – 12:39:59.999	0.5
SN	12:40:00.000 – 12:44:59.999	1
PB	12:45:00.000 – 12:49:59.999	0.5
ZS	12:50:00.000 – 12:54:59.999	0.5
AH	12:55:00.000 – 12:59:59.999	0.5
NI	13:00:00.000 – 13:04:59.999	1
Aluminium Premiums M1	13:05:00.000 – 13:09:59.999	0.5



Electronic

The table below sets out the Pricing Periods, MVR Thresholds, MVVRs and rounding protocol applicable to establishing the Official Prices when using the Official Prices BC Methodology. These are subject to change from time to time following ongoing review of market activity, approval by the Pricing and Valuations Committee, and consultation where required.

Official Prices (Electronic)						
Metal	Pricing Period	MVR Threshold (lots)		Rounding (\$)		MVVR (Lots)
		Cash	3M	VWAP	Spreads	
CO	12:20:00.000 – 12:24:59.999	5	5	0.5	5	5
CA	12:30:00.000 – 12:34:59.999	25	50	0.5	0.5	50
AA	12:35:00.000 – 12:39:59.999	5	10	0.5	0.5	5
NA	12:35:00.000 – 12:39:59.999	5	10	0.5	0.5	5
SN	12:40:00.000 – 12:44:59.999	5	10	1	1	10
PB	12:45:00.000 – 12:49:59.999	10	25	0.5	0.5	25
ZS	12:50:00.000 – 12:54:59.999	10	25	0.5	0.5	25
AH	12:55:00.000 – 12:59:59.999	25	50	0.5	0.5	100
NI	13:00:00.000 – 13:04:59.999	10	25	1	1	25
Aluminium Premiums M1	13:05:00.000 – 13:09:59.999	5	5	0.5	0.5	5



Appendix 2

Official Prices BC Methodology

To ensure continuity in the publication of the Official Prices, this Official Prices BC Methodology shall be used for the determination of the Official Prices in the event that the Ring is not available, or trading is disrupted by an emergency:

Arrangements for the Cash and 3 Month Official Prices for Metal Futures and Month 1 for Aluminium Premium Contracts

These Benchmarks are determined using a VWAP from transactions on LMEselect during the Pricing Period and where the MVR Threshold is met.

The VWAPs will then be rounded up or down, as applicable, in accordance with the rounding protocol set out in Appendix 1. For information on the determination of all other Prompt Dates (for which Official Prices are published) please see below.

Where the relevant MVR Threshold is not met, the Quotations Committee shall determine the Official Price for the affected Prompt Date using the following Pricing Waterfall:

- a) it shall be the last traded price on LMEselect during the Pricing Period if the last traded price is within, or at, the bid/offer³ on the close of the relevant Pricing Period;
- b) if the last traded price on LMEselect during the Pricing Period is outside of the bid/offer on the close of the Pricing Period, then the bid/offer closest to the last traded price will be used;
- c) if the relevant Metal Future or Aluminium Premium Contract is untraded on LMEselect during the Pricing Period, but has traded on LMEselect prior to the Pricing Period and/or where a bid/offer is available at the close of the Pricing Period, the price will be determined using the last trade (or last valuation where untraded) in conjunction with the available bid/offer information to determine the price;
- d) if the relevant Metal Future or Aluminium Premium Contract is untraded on LMEselect during or prior to the Pricing Period and there is no bid and/or offer available on the close of the Pricing Period, the price will be determined using available spread information and the last valuation.

Where:

- a) the LME does not have access to sufficient input data necessary to determine the Official Price; or
- b) a linear approach to the Pricing Waterfall would result in an inaccurate price (in the Quotation Committee's Expert Judgement) or a price determined outside the daily price limits,

the LME may set the Official Prices at a price at its absolute discretion, using Expert Judgement which includes, but not limited to, referencing data sources and available spread trading information, including but not limited to inter-office activity and prevailing market prices. In these

³ The terms "bid" and "offer" at all times refers to best bid and best offer active in the market at the close of the Pricing Period.



circumstances, the considerations for Expert Judgement set out in the section entitled *Arrangements for all other Prompt Dates* may apply.

The Official Price will then be rounded up or down, as applicable, in accordance with the rounding protocol set out in Appendix 1.

Arrangements for all other Prompt Dates

The establishment of prices for all other Prompt Dates that are published as part of the Official Prices forward curve will not utilise VWAPs. Rather, they will be determined using the 3 Month outright Official Price established on the basis of the Pricing Waterfall set out above, in conjunction with any available spread information. In establishing the spread information, the Pricing Waterfall will be applied with reference to spread orders and transactions placed or transacted up until the close of the Pricing Period⁴.

Where the Pricing Waterfall is not deemed appropriate, the Quotations Committee may use Expert Judgement in establishing the spread information and for the determination of Closing Prices for the Prompt Dates addressed by this section. Where Expert Judgement is used, the following considerations may apply:

- a) The most active months will form the basis for the forward prices. For the purposes of the determination of the forward months for the Official Prices, the Quotations Committee will give regard to all spread trading activity that has occurred throughout the day in that metal up until the close of the Pricing Period. However, it will give particular regard to trading activity and orders placed towards and at the close of the Pricing Period, particularly where significant volumes have traded and/or where there is established order depth, in the Quotation Committee's view, to represent a fair reflection of prevailing market prices.
- b) Where trades or orders placed do not equate with each other across the forward months resulting in conflicting spreads, the Quotations Committee may use Expert Judgement to adjust the price curve. Such adjustments, which may include disregarding trades and orders as appropriate, will be made having taken into account all relevant trading activity including, but not limited to:
 - i. volume traded or volume placed on bids/offers, with particular regard to activity towards the close of the Pricing Period. The LME may reference the MVVR to assist the Quotations Committee to prioritise relevant input data when considering price moves or with conflicting spreads across forward months;
 - ii. the length of time bids/offers have been visible in the LMEselect order book, with bids/offers that were entered first given priority. This may be used in conjunction with the MVVR;
 - iii. reviewing any orders that are placed in the last minute prior to the close of the Pricing Period that may be disregarded; and
 - iv. the manner in which any price has incrementally moved, with particular regard to activity towards the close of the Pricing Period.

⁴ Only bids/offers placed and transactions concluded up until the end of the Pricing Period on that day will be taken into account for the purposes of determining the spread information. For example, where the Pricing Period is between 12:30:00.000 and 12:34:59.999, the close of the Pricing Period would be up to and including 12:34:59.999.



- c) Any trades and/or orders that are deemed to be out of line with prevailing market prices for the forward months will be disregarded by the Quotations Committee at its absolute discretion.
- d) For the purposes of determining the forward months for the Official Prices, the Quotations Committee may validate order and trading activity in LMEselect against other data sources and available spread trading information, including but not limited to inter-office activity and prevailing market prices.

Provisional prices & Objections

When the provisional Official Prices have been established for each Metal Future and each Aluminium Premium Contract, they will be published on the wallboards surrounding the Ring displayed in green and published to LMEselect users via an LMEselect market message as soon as is practically possible after the close of the relevant Pricing Period for that metal (with 5 minutes being the target). LMEselect Member users will then have 5 minutes to raise objections to the provisional prices. If no objections are lodged with the LME during the Objection Window, the status of these prices will become final. If there is an objection lodged with the Quotations Committee, the Prompt Date that has been objected to will remain in green on the wallboards and the objection will be reviewed with the resolution published to LMEselect users via an LMEselect market message.

Objections must be submitted in writing to the Quotations Committee to closingprices@lme.com. The LME shall be under no obligation to consider objections which are received by the LME outside the Objection Window. No amendment to the provisional price shall be made during the Objection Window. The Quotations Committee shall be permitted to exercise its discretion to determine the appropriate course of action.

Approximately five minutes following the publication of the provisional price, the Official Price shall be published on the wallboards surrounding the Ring. This price will be displayed in red. The Official Prices will also be published contemporaneously to the wider market through LME licensed data vendors. Where, however, the LME has received an objection to a provisional price during the Objection Window and is therefore unable to publish the Official Price approximately five minutes following the publication of the provisional price, the LME shall publish the Official Price as soon as practicable following the Quotations Committee's consideration of the objection.



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Closing Prices Benchmark Statement

Appendix 4A (redline)

Appendix 4B (clean)



LME Closing Prices – Benchmark Statement

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Statement is published pursuant to Article 27 of the BMR in respect of the LME Closing Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

~~18 October 2021~~
20 May 2022

2.3 Review of Benchmark Statement

This Benchmark Statement is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually. Additionally, this Benchmark Statement will be reviewed and updated whenever there are material changes to the information set out in it, or in the corresponding Benchmark Methodology.

2.4 Key Definitions

This section of this Benchmark Statement should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the [LME’s BMR](#) Website. Any capitalised terms not defined in this section of the Benchmark Statement shall have the meaning given to them in the Definitions.

In this Benchmark Statement, the following specific definitions shall apply:

~~“Prompt Date” means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.~~

“Prompt Date” means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.



3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises certain Closing Prices as identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Statement, ~~the Benchmarks were as follows~~ Closing Prices are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Aluminium US Premium;
- (d) LME Aluminium West-Europe Premium;
- (e) LME Aluminium East-Asia Premium;
- (f) LME Aluminium South-East Asia Premium;
- (g) LME Cobalt;
- (h) LME Copper;
- (i) LME NASAAC;
- (j) LME Nickel;
- (k) LME Lead;
- (l) LME Tin; and
- (m) LME Zinc.

The Prompt Dates for each of the ~~metals set out~~ above that are Benchmarks are listed on the ~~LME's BMR~~ LME Website. Note that not all Prompt Dates for which Closing Prices are determined are Benchmarks.

3.2 ISINs

ISIN codes have not been assigned to the Closing Prices.

4 Regulatory Information

4.1 Classification

The Closing Prices each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each of the Closing Prices utilises input data available to the LME, primarily including trading activity data. However, the Closing Prices are not categorised as “regulated data” ~~Benchmarks~~ benchmarks, nor are the Closing Prices determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the Closing Prices comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.



The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“ESG”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.

4.2 Rationale for the Benchmark(s)

The assessment of trading activity on LME’s Execution Venues during the ~~period which constitutes the second Kerb session (“K2”)~~ periods defined by the Benchmark Methodology (supported by making reference to all other available data sources where there is insufficient input data) is considered to be the most appropriate pricing methodology for these Benchmarks because of the significant volume of Carryspread business that is transacted at this time providing a detailed measure of the forward curve.

4.3 Market Reality Measured

The Closing Prices are used for the margining of ~~the relevant~~ LME FutureFutures by LME Clear and LME Members.

The Closing Prices reflect the USD value of one metric tonne of the relevant metal for the relevant Prompt Date, where the metal must comply with the requirements of the applicable LME contract specification set out in the LME Rulebook. Metals are tradeable on the LME’s Execution Venues, ~~with the where trading is subject to such controls including, but not limited to, daily price limits, that are designed to support a fair and orderly market.~~ The Closing Prices ~~reflecting~~ reflect trading activity during ~~K2. In this way, the Closing Prices take into account specified periods,~~ and the supply and demand for the relevant metal (and contract expiry) at that point in time. The ~~specified periods in times at which metals are traded (and business can be conducted on LME’s Execution Venues is set out on the LME Website and the periods for~~ activity is taken into account in determining the Closing Prices) is set out ~~on~~ in the ~~LME Website – Trading Times and Dates~~ Benchmark Methodology.

4.4 Geographical Boundaries

The LME contracts resulting from trading on the LME’s Execution Venues are capable of being settled by being physically delivered into any LME Warehouse. As such, the Benchmark(s) may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may include, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

4.5 Other Information

The population of participants active in trading on the LME’s Execution Venues is difficult to determine definitively as trading may take place both directly on the LME’s Execution Venues (by Members) as well as indirectly (by the wider market participant population, through Members). An up-to-date list of members of the LME by category can be found on the LME Website.

Market information about LME Futures, including market and exchange open interest, is published on the LME Website on a daily basis.



5 Benchmark Methodology⁴

5.1 Criteria and Procedures used to determine the Benchmarks

[This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology for this Benchmark Family](#) which can be found on the [LME's BMR](#) Website. [The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.](#)

5.2 Expert Judgement

The LME Quotations Committee is permitted to exercise Expert Judgement in the determination of the constituent Benchmarks. The Closing Prices Benchmark Methodology and supporting internal policies and procedures that underpin the determination of Closing Prices, are structured with the intent of minimising, as far as feasible whilst ensuring that Closing Price determinations are reflective, the need for Expert Judgement.

As part of the LME's BMR control framework and governance arrangements, the Pricing and Valuations Committee periodically receives data and trend analysis on the frequency, nature of, and extent to which Expert Judgement is used in relation to Benchmark determinations.

5.3 Assessors

The Quotations Committee is responsible for Benchmark determinations. Quotations Committee members are subject to extensive competence and training requirements. Amongst other things, these requirements are designed to ensure the consistency of Benchmark determinations where Expert Judgement is applied. Quotations Committee members are also subject to periodic performance reviews.

The LME Closing Prices are determined by the Quotations Committee Chairman in conjunction with other members of the Quotations Committee, thereby ensuring that published prices are subject to a "4-eyes" process.

5.4 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and pricing objection windows during which [Members may submit](#) objections in relation to provisionally-determined prices [may be submitted](#). Further information on [objections, including the applicable objections periods](#) [Objection Window](#), is set out in the Closing Prices Benchmark Methodology.

⁴ ~~Further to LME Notices 21/111 and 21/153, the Closing Prices will be determined electronically with effect from the reopening of the Ring following the Covid-19 related temporary suspension. This Benchmark Statement shall be updated in due course and in the interim, should be read in the context of the Closing Prices having moved permanently to electronic determination as the primary pricing methodology. Readers should have regard to the [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](#), which with effect from 6 September 2021 shall represent the primary pricing methodology for the Closing Prices.~~



Users of the constituent Benchmarks (who do not have the right to object to provisionally determined prices) may dispute a Benchmark after final publication. Final publication times and corresponding dispute periods are detailed in the Closing Prices Benchmark Methodology.

In the event that the LME becomes aware that an incorrect price has been published to the market as final, the LME will follow its standard procedure assessing the potential impact of the error and, where appropriate, for notifying the market (and market data vendors) of the error and correcting the published price accordingly.

6 Limitations of the Benchmarks

Some of the metals that are tradeable on LME's Execution Venues are less liquid than others. Consequently, relatively limited data may be available to the Quotations Committee for these metals, on which to determine a Closing Price. Further, there may be limited data available for certain Prompt Dates. However, the LME has sought to take steps to support robust and reliable Benchmark determination through the implementation of various measures including (but not limited to):

- (a) permitting the Quotations Committee to use Expert Judgement (or relevant data from alternative LME Execution Venues) where appropriate; and
- (b) designing the Benchmark methodology to accommodate circumstances in which there is limited input data (for example, by applying ~~expert judgement~~Expert Judgement to facilitate unreflective bids and offers to be excluded from Benchmark determinations).

It is not possible to foresee all circumstances in which one or more of the Benchmarks may become unreliable, but a non-exhaustive list may include (depending on the circumstances):

- (a) an exceptional market event (e.g. an extreme volatility event or unforeseen event in the physical market);
- (b) where a trading halt is called on the LME;
- (c) insufficient input data (i.e. no bid, offers or transactions) to determine a price (notwithstanding the contingencies the LME has put in place); and
- (d) significant divergence between the Benchmark and the relevant OTC price(s).

The LME has implemented measures aimed at addressing unexpected market events and also supporting the continued provision of the Benchmarks during these events including, for example, implementing a fast markets policy which would apply in circumstances of significant volatility. Furthermore ~~section 4.1 of~~ the Benchmark Methodology sets out how the Closing Price shall be determined where there is insufficient input data and where business continuity procedures have been invoked.

Additionally, in certain circumstances where a Disruption Event has been declared, the LME may instead publish prices that shall not formally constitute Closing Prices. A Closing Price that is determined to be subject to a Disruption Event will be referred to in relevant LME communications as a "Disrupted Closing Price" in order to make the status of these prices clear. Disrupted Closing Prices caused either by a market suspension or due to the daily price limits, may differ to prices that would have been established should suspension not have occurred or where controls that impacted the trading activity on LME Execution Venues had not been in place. As such, these Disrupted Closing Prices may not be completely reflective of trading



activity observed. The LME will also continue to publish Disrupted Closing Prices on its market data feeds. Further information relating to Disruption Events can be found on the LME Website.

7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.

Details of the LME Benchmark Changes and Cessation Procedure, which details the LME's arrangements for consulting on proposed changes and cessations (where applicable), can be found on the [LME's BMR](#) LME Website.

8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

Item 1. Name of the benchmark administrator	The London Metal Exchange
Item 2. Type of benchmark or family of benchmarks.	Commodity Benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Closing Prices
Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.	
(a) List of combined ESG factors:	Details on each factor: Not applicable.



(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.

Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.

(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.

Item 8. Data and standards used

(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.

SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE TRANSITION AND UK PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or ‘UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.



(c) overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.
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SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:

(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.
(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.
(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021. Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.



9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	06/09/2021
1.4	18/10/2021
<u>2.0</u>	<u>20/05/2022</u>



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20 May 2022

2.3 Review of Benchmark Statement

This Benchmark Statement is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually. Additionally, this Benchmark Statement will be reviewed and updated whenever there are material changes to the information set out in it, or in the corresponding Benchmark Methodology.

2.4 Key Definitions

This section of this Benchmark Statement should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website. Any capitalised terms not defined in this section of the Benchmark Statement shall have the meaning given to them in the Definitions.

In this Benchmark Statement, the following specific definitions shall apply:

“Prompt Date” means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.



3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises certain Closing Prices as identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Statement, Closing Prices are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Aluminium US Premium;
- (d) LME Aluminium West-Europe Premium;
- (e) LME Aluminium East-Asia Premium;
- (f) LME Aluminium South-East Asia Premium;
- (g) LME Cobalt;
- (h) LME Copper;
- (i) LME NASAAC;
- (j) LME Nickel;
- (k) LME Lead;
- (l) LME Tin; and
- (m) LME Zinc.

The Prompt Dates for each of the above that are Benchmarks are listed on the LME Website. Note that not all Prompt Dates for which Closing Prices are determined are Benchmarks.

3.2 ISINs

ISIN codes have not been assigned to the Closing Prices.

4 Regulatory Information

4.1 Classification

The Closing Prices each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each of the Closing Prices utilises input data available to the LME, primarily including trading activity data. However, the Closing Prices are not categorised as “regulated data” benchmarks, nor are the Closing Prices determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the Closing Prices comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.

The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“ESG”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.



4.2 Rationale for the Benchmark(s)

The assessment of trading activity on LME's Execution Venues during the periods defined by the Benchmark Methodology (supported by making reference to all other available data sources where there is insufficient input data) is considered to be the most appropriate pricing methodology for these Benchmarks because of the significant volume of spread business that is transacted at this time providing a detailed measure of the forward curve.

4.3 Market Reality Measured

The Closing Prices are used for the margining of LME Futures by LME Clear and LME Members.

The Closing Prices reflect the USD value of one metric tonne of the relevant metal for the relevant Prompt Date, where the metal must comply with the requirements of the applicable LME contract specification set out in the LME Rulebook. Metals are tradeable on the LME's Execution Venues, where trading is subject to such controls including, but not limited to, daily price limits, that are designed to support a fair and orderly market. The Closing Prices reflect trading activity during specified periods, and the supply and demand for the relevant metal (and contract expiry) at that point in time. The times at which business can be conducted on LME's Execution Venues is set out on the LME Website and the periods for which activity is taken into account in determining the Closing Prices is set out in the Benchmark Methodology.

4.4 Geographical Boundaries

The LME contracts resulting from trading on the LME's Execution Venues are capable of being settled by being physically delivered into any LME Warehouse. As such, the Benchmark(s) may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may include, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

4.5 Other Information

The population of participants active in trading on the LME's Execution Venues is difficult to determine definitively as trading may take place both directly on the LME's Execution Venues (by Members) as well as indirectly (by the wider market participant population, through Members). An up-to-date list of members of the LME by category can be found on the LME Website.

Market information about LME Futures, including market and exchange open interest, is published on the LME Website on a daily basis.

5 Benchmark Methodology

5.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology which can be found on the LME Website. The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.



5.2 Expert Judgement

The LME Quotations Committee is permitted to exercise Expert Judgement in the determination of the constituent Benchmarks. The Closing Prices Benchmark Methodology and supporting internal policies and procedures that underpin the determination of Closing Prices, are structured with the intent of minimising, as far as feasible whilst ensuring that Closing Price determinations are reflective, the need for Expert Judgement.

As part of the LME's BMR control framework and governance arrangements, the Pricing and Valuations Committee periodically receives data and trend analysis on the frequency, nature of, and extent to which Expert Judgement is used in relation to Benchmark determinations.

5.3 Assessors

The Quotations Committee is responsible for Benchmark determinations. Quotations Committee members are subject to extensive competence and training requirements. Amongst other things, these requirements are designed to ensure the consistency of Benchmark determinations where Expert Judgement is applied. Quotations Committee members are also subject to periodic performance reviews.

The LME Closing Prices are determined by the Quotations Committee Chairman in conjunction with other members of the Quotations Committee, thereby ensuring that published prices are subject to a "4-eyes" process.

5.4 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and pricing objection windows during which objections in relation to provisionally-determined prices may be submitted. Further information on objections, including the applicable Objection Window, is set out in the Closing Prices Benchmark Methodology.

Users of the constituent Benchmarks (who do not have the right to object to provisionally determined prices) may dispute a Benchmark after final publication. Final publication times and corresponding dispute periods are detailed in the Closing Prices Benchmark Methodology.

In the event that the LME becomes aware that an incorrect price has been published to the market as final, the LME will follow its standard procedure assessing the potential impact of the error and, where appropriate, for notifying the market (and market data vendors) of the error and correcting the published price accordingly.

6 Limitations of the Benchmarks

Some of the metals that are tradeable on LME's Execution Venues are less liquid than others. Consequently, relatively limited data may be available to the Quotations Committee for these metals, on which to determine a Closing Price. Further, there may be limited data available for certain Prompt Dates. However, the LME has sought to take steps to support robust and reliable Benchmark determination through the implementation of various measures including (but not limited to):



- (a) permitting the Quotations Committee to use Expert Judgement (or relevant data from alternative LME Execution Venues) where appropriate; and
- (b) designing the Benchmark methodology to accommodate circumstances in which there is limited input data (for example, by applying Expert Judgement to facilitate unreflective bids and offers to be excluded from Benchmark determinations).

It is not possible to foresee all circumstances in which one or more of the Benchmarks may become unreliable, but a non-exhaustive list may include (depending on the circumstances):

- (a) an exceptional market event (e.g. an extreme volatility event or unforeseen event in the physical market);
- (b) where a trading halt is called on the LME;
- (c) insufficient input data (i.e. no bid, offers or transactions) to determine a price (notwithstanding the contingencies the LME has put in place); and
- (d) significant divergence between the Benchmark and the relevant OTC price(s).

The LME has implemented measures aimed at addressing unexpected market events and also supporting the continued provision of the Benchmarks during these events including, for example, implementing a fast markets policy which would apply in circumstances of significant volatility. Furthermore, the Benchmark Methodology sets out how the Closing Price shall be determined where there is insufficient input data and where business continuity procedures have been invoked.

Additionally, in certain circumstances where a Disruption Event has been declared, the LME may instead publish prices that shall not formally constitute Closing Prices. A Closing Price that is determined to be subject to a Disruption Event will be referred to in relevant LME communications as a “Disrupted Closing Price” in order to make the status of these prices clear. Disrupted Closing Prices caused either by a market suspension or due to the daily price limits, may differ to prices that would have been established should suspension not have occurred or where controls that impacted the trading activity on LME Execution Venues had not been in place. As such, these Disrupted Closing Prices may not be completely reflective of trading activity observed. The LME will also continue to publish Disrupted Closing Prices on its market data feeds. Further information relating to Disruption Events can be found on the LME Website.

7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.

Details of the LME Benchmark Changes and Cessation Procedure, which details the LME’s arrangements for consulting on proposed changes and cessations (where applicable), can be found on the LME Website.



8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

Item 1. Name of the benchmark administrator	The London Metal Exchange
Item 2. Type of benchmark or family of benchmarks.	Commodity Benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Closing Prices
Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
<p>Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.</p>	
(a) List of combined ESG factors:	Details on each factor: Not applicable.



(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.

Item 8. Data and standards used

(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.

SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE TRANSITION AND UK PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or ‘UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.
(c) overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.

SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:



(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.
(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.
(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021. Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.

9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	06/09/2021
1.4	18/10/2021
2.0	20/05/2022

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Closing Prices Benchmark Methodology

Appendix 5B (clean only)



LME Closing Prices – Benchmark Methodology

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Methodology is published pursuant to Annex II of the BMR in respect of the LME Closing Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

20 May 2022

2.3 Review of Benchmark Methodology

This Benchmark Methodology is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually.

Proposed changes to the Benchmark Methodology (whether resulting from the annual review process or otherwise) shall be handled in accordance with the **Benchmark Changes and Cessation Procedure**. The **Benchmark Changes and Cessation Procedure** sets out how, and the circumstances in which, the LME will seek market participant views in relation to a proposed change. Proposed changes shall be considered by the LME Pricing and Valuations Committee.

2.4 Key Definitions

This Benchmark Methodology should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website. Any capitalised terms not specifically defined in the Benchmark Methodology shall have the meaning given to them in the Definitions.

In this Benchmark Methodology, the following specific definitions shall apply:

“ Closing Prices BC Methodology ”	means the methodology set out in Appendix 2 by which the Closing Prices shall be determined where business continuity procedures are invoked (see paragraph 4.9).
“ Closing Price Cut-off ”	means the defined time on the Business Day for the relevant metal as set out in Appendix 1 for which bids/offers must be placed and transactions concluded to be taken into account for the purposes of determining the spread information.



“Pricing Period”	means the defined period of time on the Business Day for the relevant metal as set out in Appendix 1.
“Pricing Waterfall”	means the process described in section 4.1.1.
“Prompt Date”	means the Business Day on which the relevant LME contract is to be settled, which in turn will depend on the tradeable date that has been traded and that has resulted in the LME contract.
“MVR Threshold”	means the minimum volume required to be transacted in the Pricing Period for a VWAP to be considered, as set out in Appendix 1.
“MVVR”	the Minimum Visible Volume Requirements set out in Appendix 1 which represent the traded volume or visible volume placed on bids/offers per Contract to be considered by the Quotations Committee to assist in prioritising relevant input data when considering price moves or with conflicting spreads across forward months.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises certain Closing Prices as identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Methodology, Closing Prices are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Aluminium US Premium;
- (d) LME Aluminium West-Europe Premium;
- (e) LME Aluminium East-Asia Premium;
- (f) LME Aluminium South-East Asia Premium;
- (g) LME Cobalt;
- (h) LME Copper;
- (i) LME NASAAC;
- (j) LME Nickel;
- (k) LME Lead;
- (l) LME Tin; and
- (m) LME Zinc.

The Prompt Dates for each of the above that are Benchmarks are listed on the LME Website. Note that not all Prompt Dates for which Closing Prices are determined are Benchmarks.



4 Benchmark Methodology

4.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Methodology is used each Business Day to calculate the Closing Price for the relevant Prompt Dates.

For each of the metals listed above, the applicable contract specifications that govern factors such as the quality of the metal to be delivered, can be found in the LME Rulebook.

The Closing Prices are determined by the Quotations Committee through a combination of:

- (a) determining a value for the 3 Month Closing Price (and any other Prompt Dates which the Quotations Committee decide should be allocated a value);
- (b) establishing a breakdown of the spread between different Prompt Dates;
- (c) calculating a value for other Prompt Dates through analysis of the spreads between Prompt Dates, including last valuations; and
- (d) using a process of interpolation to calculate a value for outstanding Prompt Dates as appropriate.

4.1.1 General Methodology

The Closing Prices are based on trading activity on LMEselect including trades, bids and offers. The times at which business can be conducted on LME's Execution Venues (including the operating hours of LMEselect) are set out on the LME Website and the periods for which activity is taken into account in determining the Closing Prices is set out in this Benchmark Methodology.

Arrangements for the 3 Month Closing Prices for Metal Futures and Month 1 for Aluminium Premium Contracts

These Benchmarks are determined using a VWAP from transactions on LMEselect during the Pricing Period and where the MVR Threshold is met.

The VWAP will then be rounded up or down, as applicable, in accordance with the rounding protocol set out in Appendix 1. For information on the determination of all other Prompt Dates (for which Closing Prices are published) see the section entitled *Arrangements for all other Prompts Dates* below.

Where the relevant MVR Threshold is not met, the Quotations Committee shall determine the Closing Price for the affected Prompt Date using the following Pricing Waterfall:

- a) it shall be the last traded price on LMEselect during the Pricing Period if the last traded price is within, or at, the bid/offer¹ on the close of the relevant Pricing Period;
- b) if the last traded price on LMEselect during the Pricing Period is outside of the bid/offer on the close of the Pricing Period, then the bid/offer closest to the last traded price will be used;

¹ The terms "bid" and "offer" at all times refers to best bid and best offer active in the market at the close of the Pricing Period or Closing Price Cut-off.



- c) if the relevant Metal Future or Aluminium Premium Contract is untraded on LMEselect during the Pricing Period, but has traded on LMEselect prior to the Pricing Period and/or where a bid/offer is available at the close of the Pricing Period, the price will be determined using the last trade (or last valuation where untraded) in conjunction with the available bid/offer information to determine the price;
- d) if the relevant Metal Future or Aluminium Premium Contract is untraded on LMEselect during or prior to the Pricing Period and there is no bid and/or offer available on the close of the Pricing Period, the price will be determined using available spread information and the last valuation.

Where:

- a) the LME does not have access to sufficient input data necessary to determine the Closing Price; or
- b) a linear approach to the Pricing Waterfall would result in an inaccurate price (in the Quotation Committee's Expert Judgement) or a price determined outside the daily price limits,

the LME may set the Closing Prices at a price at its absolute discretion, using Expert Judgement which includes, but not limited to, referencing data sources and available spread trading information, including but not limited to inter-office activity and prevailing market prices. In these circumstances, the considerations for Expert Judgement set out in the section entitled *Arrangements for all other Prompt Dates* may apply.

The Closing Price will then be rounded up or down, as applicable, in accordance with the rounding protocol set out in Appendix 1.

Arrangements for all other Prompt Dates

The establishment of prices for all other Prompt Dates (a number of which are Benchmarks) that are published as part of the Closing Prices forward curve will not utilise VWAPs. Rather, they will be determined using the 3 Month outright Closing Price established on the basis of the Pricing Waterfall set out above, in conjunction with any available spread information. In establishing the spread information, the Pricing Waterfall will be applied with reference to spread orders and transactions placed or transacted before the Closing Price Cut-off².

Where the Pricing Waterfall is not deemed appropriate, the Quotations Committee may use Expert Judgement in establishing the spread information and for the determination of Closing Prices for the Prompt Dates addressed by this section. Where Expert Judgement is used, the following considerations may apply:

- a) The most active months will form the basis for the forward prices. For the purposes of the determination of the forward months for the Closing Prices, the Quotations Committee will give regard to all spread trading activity that has occurred throughout the day in that metal prior to the Closing Price Cut-off. However, it will give particular regard to trading activity and orders placed towards and on the Closing Price Cut-off, particularly where

² The Closing Price Cut-off for each metal is set out in Appendix 1. Only bids/offers placed and transactions concluded up to and including the Closing Price Cut-off on that day will be taken into account for the purposes of determining the spread information.



significant volumes have traded and/or where there is established order depth, in the Quotations Committee's view, to represent a fair reflection of prevailing market prices.

- b) Where trades or orders placed do not equate with each other across the forward months resulting in conflicting spreads, the Quotations Committee may use Expert Judgement to adjust the price curve. Such adjustments, which may include disregarding trades and orders as appropriate, will be made having taken into account all relevant trading activity including, but not limited to:
 - i. volume traded or volume placed on bids/offers, with particular regard to activity towards the Closing Price Cut-off. The LME may reference the MVVR to assist the Quotations Committee to prioritise relevant input data when considering price moves or with conflicting spreads across forward months;
 - ii. the length of time bids/offers have been visible in the LMEselect order book, with bids/offers that were entered first given priority. This may be used in conjunction with the MVVR;
 - iii. reviewing any orders that are placed in the last minute prior to the Closing Price Cut-off that may be disregarded; and
 - iv. the manner in which any price has incrementally moved, with particular regard to activity towards the Closing Price Cut-off.
- c) Any trades and/or orders that are deemed to be out of line with prevailing market prices for the forward months will be disregarded by the Quotations Committee at its absolute discretion.
- d) For the purposes of determining the forward months for the Closing Prices, the Quotations Committee may validate order and trading activity in LMEselect against other data sources and available spread trading information, including but not limited to inter-office activity and prevailing market prices.

Provisional prices and objections

When the provisional Closing Prices have been established, they will be published on the wallboards surrounding the Ring displayed in green and placed on the LME SFTP server. At the same time, the provisional Closing Prices will be disseminated to LME licenced data vendors with an appropriate message to show the status of these prices as provisional. The timing for the publication of provisional prices will be determined by the Quotations Committee, as soon as is practical after each metal's Pricing Period on LMEselect from 16:00 London time (or at a revised time communicated by the LME). Once the provisional prices have been published, Category 1, 2 and 4 Members may then submit objections to the LME in relation to the provisional prices during the Objection Window which shall apply until 17:30 London time (but can be extended subject to the discretion of the Quotations Committee).

Objections must be submitted in writing to the Quotations Committee to closingprices@lme.com. The LME shall be under no obligation to consider objections which are received by the LME outside the Objection Window. No amendment to the provisional price shall be made during the Objection Window, but will be reflected as an updated provisional price at the end of the Objection Window where an objection is upheld. The Quotations Committee shall be permitted to exercise its discretion to determine the appropriate course of action.



Publication of Closing Prices

The Closing Prices shall be published on the wallboards surrounding the Ring as close to 17:50 London time as practicable. These prices will be displayed in red. The Closing Prices will also be published contemporaneously to the wider market through LME licensed data vendors and the provisional Closing Prices placed on the LME SFTP server will become the Closing Prices. Where, however, the LME has received an objection to a provisional price during the Objection Window and is therefore unable to publish the Closing Price by approximately 17:50 London time, the LME shall publish the Closing Price as soon as practicable following the Quotations Committee's consideration of the objection.

The timings for publication of provisional and final Closing Prices are as follows:

Metal	Provisional Prices (from) (London time – approximate)	Final Closing Prices (London time – approximate)
Zinc	16:00	17:50
Tin	16:10	17:50
Lead	16:20	17:50
Cobalt	16:25	17:50
Aluminium	16:35	17:50
Aluminium Premiums, Aluminium Alloy, NASAAC	16:40	17:50
Copper	16:50	17:50
Nickel	17:00	17:50

4.1.2 MVR Thresholds and MVVRs

The MVR Thresholds and MVVR applicable to this methodology for establishing the Closing Prices are set out in Appendix 1.

All LMEselect trades in outright for the relevant Prompt Date for the relevant Metal Future or Aluminium Premium Contract that occur during the relevant Pricing Period will be considered for the purposes of the MVR Threshold and VWAP calculation, unless the LME excludes any trade it deems erroneous, such determination being at the LME's absolute discretion.

4.2 Relative Importance of Benchmark Criteria

The Closing Prices are typically determined using as input data, trading activity from LMEselect including transactions and bid/offer spread information. The Closing Price, including the 3 Month Prompt Date where the relevant MVR Threshold is not met, is typically the last traded price if it falls within the last bid/offer spread. Where applicable, if the last traded price does not fall within the bid/offer on the close of the relevant period, then priority shall be given to the last bid and



offer price quoted. However, the LME reserves the right to prioritise other inputs at their discretion and to not consider the last trades, bids or offers quoted where failure to do so would lead to a misleading or unreflective Closing Price at the LME's discretion and Expert Judgement.

4.3 Unit of Publication and Rounding

Each of the Closing Prices shall be published in USD per metric tonne.

Each of the Closing Prices is linked to and based upon the trading activity for the Underlying Metal on LMEselect (for more information, see the Benchmark Statement for the Closing Prices). Each concluded contract is capable of being physically delivered in accordance with the specifications set out in the LME Rulebook. In the physical commodity trading market, contracts for the purchase and sale of base metals are generally priced on the basis of a US dollar per metric tonne pricing structure. The LME aims at all times to ensure that its products most accurately reflect market realities and so has determined that US dollars per metric tonne is the most appropriate reference unit for its Closing Prices.

The values determined for each of the Closing Prices will be rounded as per the rounding protocol set out in Appendix 1.

4.4 Expert Judgement

The Closing Prices Benchmark Methodology and supporting policies and procedures that underpin the determination of Closing Prices, are structured with the intent of minimising, as far as feasible whilst ensuring that Closing Price determinations are reflective, the need for Expert Judgement or discretion.

As part of the LME's BMR control framework and governance arrangements, the Pricing and Valuations Committee periodically receives data and trend analysis on the frequency, nature of, and extent to which, Expert Judgement is used in relation to Benchmark determinations.

4.5 Assessors

The Quotations Committee is responsible for Benchmark determinations. Quotations Committee members are subject to extensive competence and training requirements. Amongst other things, these requirements are designed to ensure the consistency of Benchmark determinations where Expert Judgement is applied. Quotations Committee members are also subject to periodic performance reviews.

The Closing Prices are determined by the Quotations Committee Chairman in conjunction with other members of the Quotations Committee, thereby ensuring that published prices are subject to a "4-eyes" process.

4.6 Exclusion of Transaction Data

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, for example (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 a Benchmark determination. Where such behaviours or circumstances are identified, the LME may



exclude the relevant data from the input data set that is used to determine the relevant Benchmark.

Any decision to exclude transaction data would be made in accordance with the procedures and controls set out in paragraph 4.5 above.

4.7 Pricing Disputes

Pursuant to paragraph 17 of Annex II of the BMR, users of the constituent Benchmarks may dispute a daily pricing determination. Considering the right of some users to object to a provisional price during the Objections Window (see paragraph 4.1.1), users who had that right may not dispute a daily pricing determination unless:

- (a) the subject matter of the dispute relates to a matter that occurred after the Objections Window, for example:
 - a. the dispute relates to the way in which an objection the user made during the Objections Window was handled by the LME; or
 - b. the dispute relates to a change that was made to the provisional price before the final price was published; or
- (b) the dispute has been raised on behalf of an underlying client who did not itself have the right to object to provisionally determined prices during the Objections Window for that benchmark.

For the avoidance of doubt, where a user did not have the right to object during the Objections Window, they shall not be prohibited from disputing a daily pricing determination.

Any such dispute must be submitted to the LME in writing to closingprices@lme.com and must be received within thirty (30) minutes of publication via the LME's market data channels of the Closing Price that is the subject of the dispute. The user must include sufficient information to enable the LME to properly consider the dispute, including (but not limited to) the specific Closing Price that is the subject of the dispute, and the reason for the dispute.

4.8 Disruption Events

A Disruption Event in any Prompt Date which Closing Prices are determined for a metal, shall typically apply to all Prompt Dates for which Closing Prices are determined for that metal. However, the LME may apply Expert Judgement to make its determination. Where the LME has determined that a Disruption Event has occurred, the LME will inform the market as soon as possible following its determination.

Where a Disruption Event has been declared, the LME may instead publish prices that shall not formally constitute Closing Prices. A Closing Price that is determined to be subject to a Disruption Event will be referred to in relevant LME communications as a "Disrupted Closing Price" in order to make the status of these prices clear. The LME will also continue to publish Disrupted Closing Prices on its market data feeds.

The LME may set the Disrupted Closing Price at a price at its absolute discretion using Expert Judgement, however, the Disrupted Closing Price will typically be determined as follows:

Disruption Event due to daily price limits



Arrangements for the 3 Month Closing Prices for Metal Futures and Month 1 for Aluminium Premium Contracts

On a given Business Day, where a daily price limit is hit at any time during the Pricing Period by way of a trade taking place at a daily price limit, a bid being placed at an upper limit, or an offer being placed at a lower limit, the Closing Price will be determined at that daily price limit for that metal.

Arrangements for all other Prompt Dates

On a given Business Day, where a daily price limit would be implied to be reached for any Prompt Date in that metal by a combination of an outright and a spread, the Closing Price for that Prompt Date will be adjusted to its nearest daily price limit.

Disruption Event due to suspension of trading

Where a Disruption Event has occurred due to the suspension of trading of a base metal on any Business Day (unless the suspension takes effect after the LME has determined the Closing Prices for that Business Day and the LME considers the Closing Price(s) to be reflective), the Closing Prices for each Prompt Date for that metal shall be determined using the last valuation and amended for any date adjustment if appropriate.

Further information relating to Disruption Events can be found on the LME Website.

4.9 Business Continuity Procedures

In the event the LME is unable to determine the Closing Prices using the methodology as set out above, for example in the event trading on LMEselect is suspended or there is insufficient information available to the Quotations Committee, the LME may invoke business continuity procedures and establish the Closing Prices for one or more metals using the Closing Prices BC Methodology as set out in Appendix 2.

Where business continuity procedures have been invoked, the LME will endeavour to continue establishing the Closing Prices for each base Metal Future and each Aluminium Premium Contract at the prescribed times. Where this is not possible, the LME will communicate revised times for determining the Closing Prices for any relevant Metal Future or Aluminium Premium Contract as soon as is practically possible. Any Closing Price established before the LME's business continuity procedures are invoked may stand, subject to the discretion of the Quotations Committee.

5 Document Change History

Version	Date
1.0	02/12/2019
1.1	15/01/2021
1.2	06/09/2021
2.0	20/05/2022



Appendix 1

MVR Thresholds, MVVRs and Rounding Protocol

The table below sets out the MVR Thresholds, MVVRs and rounding protocol applicable to establishing the Closing Prices. The MVR Thresholds, MVVRs and rounding protocols are subject to change from time to time following ongoing review of market activity, approval by the Pricing and Valuations Committee, and consultation where required.

Closing Prices					
Metal	3 Month (VWAP)			Spreads	
	Pricing Period	MVR Threshold (Lots)	Rounding (\$)*	Closing Price Cut-off	MVVR (Lots)
CO	16:20:00.000 - 16:24:59.999	5	0.5	16:24:59.999	5
CA	16:45:00.000 - 16:49:59.999	50	0.5	16:44:59.999	50
AA	16:35:00.000 - 16:39:59.999	10	0.5	16:39:59.999	5
NA	16:35:00.000 - 16:39:59.999	10	0.5	16:39:59.999	5
SN	16:05:00.000 - 16:09:59.999	10	1	16:04:59.999	10
PB	16:15:00.000 - 16:19:59.999	25	0.5	16:14:59.999	25
ZS	15:55:00.000 - 15:59:59.999	25	0.5	15:54:59.999	25
AH	16:30:00.000 - 16:34:59.999	50	0.5	16:29:59.999	100
NI	16:55:00.000 - 16:59:59.999	25	1	16:54:59.999	25
Aluminium Premiums M1	16:35:00.000 - 16:39:59.999	5	0.5	16:39:59.999	5

*All other outright prompts will be valued to the nearest \$0.01



Appendix 2

Closing Prices BC Methodology

To ensure continuity in the publication of the Closing Prices, this Closing Prices BC Methodology shall be used for the determination of the Closing Prices in the event trading on LMEselect is suspended or there is insufficient information available to the Quotations Committee.

If a system outage results in LMEselect being unavailable prior to the Pricing Period, the LME may reasonably delay the establishment of the Closing Prices while seeking a resolution to the outage. If there is a system outage during the Pricing Period, the LME shall determine whether to delay the establishment of the remaining Closing Prices taking into account the time of outage, any available data and if the MVR Threshold for the 3 Month Prompt Date has been reached for the respective Metal Future and in respect of Aluminium Premium Contracts, the Month 1 Prompt Date.

If the LME is unable to establish the Closing Prices basis LMEselect activity, the LME may set the Closing Prices at its absolute discretion, referencing the Pricing Waterfall, Expert Judgement and by reference to all appropriate available data sources. These data sources shall include, without limitation, previously established LME prices and trading information available from LMEselect prior to the outage (where these are deemed to remain reflective of current market conditions), available spread trading information, data originating from other LME trading venues, and alternative data sources that reference prevailing market prices.

The LME will communicate as appropriate ahead of the Pricing Period to confirm business continuity procedures have been invoked with any revised times and relevant information for the establishment of the Closing Prices for any relevant Metal Future or Aluminium Premium Contract as soon as is practically possible.



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Distribution, redistribution, reproduction, modification or transmission of the Information in whole or in part, in any form or by any means are strictly prohibited without the prior written permission of the LME. The Information does not, and is not intended to, constitute investment advice, commentary or a recommendation to make any investment decision. The LME is not acting for any person to whom it has provided the Information. Persons receiving the Information are not clients of the LME and accordingly the LME is not responsible for providing any such persons with regulatory or other protections. All persons in receipt of the Information should obtain independent investment, legal, tax and other relevant advice before making any decisions based on the Information.





MASPs Benchmark Statement

Appendix 6A (redline)

Appendix 6B (clean)



LME Monthly Average Settlement Prices – Benchmark Statement

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Statement is published pursuant to Article 27 of the BMR in respect of the LME Monthly Average Settlement Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

~~18 October 2021~~

20 May 2022

2.3 Review of Benchmark Statement

This Benchmark Statement is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually. Additionally, this Benchmark Statement will be reviewed and updated whenever there are material changes to the information set out in it, or in the corresponding Benchmark Methodology.

2.4 Key Definitions

This Benchmark Statement should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the ~~LME’s website~~ LME Website. Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the ~~LME’s website~~ LME Website. As at the date of the last update to this Benchmark Statement, ~~a MASP is determined each calendar month for the Benchmarks were as follows~~ following:

- (a) LME Aluminium ~~Monthly Average Settlement Price~~;
- (b) LME Aluminium Alloy ~~Monthly Average Settlement Price~~;
- (c) LME Copper ~~Monthly Average Settlement Price~~;
- (d) LME NASAAC ~~Monthly Average Settlement Price~~;
- (e) LME Nickel ~~Monthly Average Settlement Price~~;
- (f) LME Lead ~~Monthly Average Settlement Price~~;
- (g) LME Tin ~~Monthly Average Settlement Price~~; and



(h) LME Zinc ~~Monthly Average Settlement Price~~,
(collectively the “MASPs”).

3.2 ISINs

ISIN codes have not been assigned to the MASPs.

4 Regulatory Information

4.1 Classification

The MASPs each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each MASP utilises input data readily available to the LME, ~~primarily including trading activity data, as detailed in the Benchmark Methodology.~~ However, MASPs are not categorised as “regulated data” ~~Benchmarks~~ benchmarks, nor are the MASPs determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the MASPs comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.

The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“ESG”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.

4.2 Rationale for the Benchmark(s)

In seeking to provide a reliable Benchmark with which to settle Monthly Average Futures and Traded Average Price Options, a mean average methodology is considered to be the most appropriate (as opposed to a mode) as the mean average calculation would also reflect any price fluctuations experienced intra-month, whereas other forms of averaging calculation would not reflect any outlying prices.

4.3 Market Reality Measured

The MASPs are used to value and settle Monthly Average Futures and Traded Average Price Options. The MASPs represent the mean average daily price of the current calendar month of one lot of the relevant metal which complies with the specifications set out in the LME Rulebook. The MASPs are calculated using the Official Settlement Prices as input data and so underlying the MASPs is the market reality which the Official Settlement Prices seeks to represent, ~~which is the price of one lot of metal underlying the relevant LME Future and which complies with the relevant contract specification during which that metal is tradeable during the period which constitutes Ring 2 (“R2”) (except in the case of Cobalt, it is the period which constitutes Ring 1 (“R1”)) and takes into account supply and demand at that point in time.~~

For more information in relation to the input data used to determine the MASPs, please see the Benchmark Statement for the Official Prices available on the ~~LME’s website~~ LME Website.



4.4 Geographical Boundaries

The MASPs are calculated using the Official Settlement Prices as input data. Consequently, the geographical boundaries which apply to the Official Settlement Prices consequently apply to the MASPs. Therefore, the value of the relevant metal that is reflected in the trading activity taken into account in determining the Official Prices will also be reflected in the MASPs. Amongst other things, this takes into account the fact that LME Contracts are capable of being settled by being physically delivered into an LME Warehouse. As such, the MASPs may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may include, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

4.5 Other Information

The population of participants active in trading on the LME's Execution Venues is difficult to determine definitively as trading may take place both directly on the LME's Execution Venues (by Members) as well as indirectly (by the wider market participant population, through Members). Monthly Average Futures may be traded on LMEselect and on the inter-office market. However, only Category 1 Members are capable of trading in the Ring (where Official Prices ordinarily derive their input data).

An up-to-date list of members of the LME by category can be found on the [LME's website](#) LME Website.

Market information about Monthly Average Futures and Traded Average Price Options, including market and exchange open interest, is published on the [LME's website](#) LME Website on a daily basis.

5 Benchmark Methodology

5.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology which can be found on the [LME's website](#) LME Website. The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.

As the MASPs are calculated using the Official Settlement Prices as input data, the Benchmark Methodology for the Official Prices should also be read in conjunction with this Benchmark Statement. This methodology also sets out the arrangements for pricing in the event business continuity procedures are invoked, for example, when the Ring is unavailable or trading is disrupted.

5.2 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and pricing objection windows in relation to the Official Settlement Prices, during which [Members](#)



~~may submit~~ objections to provisionally-determined prices may be submitted before they are finalised and used as inputs to the MASPs.

Users of the constituent Benchmarks may dispute a Benchmark after publication. Publication times and corresponding dispute periods are detailed in the Monthly Average Settlement Prices Benchmark Methodology.

In the event that the LME becomes aware that an inaccurate price is published to the market, ~~the LME~~ will follow its standard process assessing the potential impact of the error and, where appropriate, for notifying the market (and market data vendors) of the error and correcting the published price accordingly.

6 Limitations of the Benchmarks

As the MASPs are calculated using the Official Settlement Prices as their input data, the MASPs are indirectly subject to the limitations faced by the Official Settlement Prices. For more information, including how the Official Settlement Prices are determined, including where there is insufficient input data and the impact Disruption Events have on these prices, please see the Benchmark Statement and Benchmark Methodology for the Official Prices which is available on the ~~LME's website~~ LME Website.

Additionally, the MASPs themselves may be affected by Disruption Events as detailed in the MASPs Benchmark Methodology. Further information relating to Disruption Events can be found on the LME Website.

7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.

The LME Benchmark Changes and Cessation Procedure, which details the LME's arrangements for consulting on proposed changes and cessations (where applicable), can be found on the ~~LME's website~~ LME Website.

8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

Item 1. Name of the benchmark administrator	The London Metal Exchange
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Item 2. Type of benchmark or family of benchmarks.	Commodity Benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Monthly Average Settlement Prices
Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.	
(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.	
(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.



Item 8. Data and standards used

(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.



**SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE
TRANSITION AND UK PARIS-ALIGNED BENCHMARKS**

Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or ‘UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.
(c) Overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.

**SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS
AGREEMENT**

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:

(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.

(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.
(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021. Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.

9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	18/10/2021
<u>2.0</u>	<u>20/05/2022</u>

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LME Monthly Average Settlement Prices – Benchmark Statement

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Statement is published pursuant to Article 27 of the BMR in respect of the LME Monthly Average Settlement Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

20 May 2022

2.3 Review of Benchmark Statement

This Benchmark Statement is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually. Additionally, this Benchmark Statement will be reviewed and updated whenever there are material changes to the information set out in it, or in the corresponding Benchmark Methodology.

2.4 Key Definitions

This Benchmark Statement should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website. Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Statement, a MASP is determined each calendar month for the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Copper;
- (d) LME NASAAC;
- (e) LME Nickel;
- (f) LME Lead;
- (g) LME Tin; and
- (h) LME Zinc,

(collectively the “**MASPs**”).



3.2 ISINs

ISIN codes have not been assigned to the MASPs.

4 Regulatory Information

4.1 Classification

The MASPs each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each MASP utilises input data readily available to the LME as detailed in the Benchmark Methodology. However, MASPs are not categorised as “regulated data” benchmarks, nor are the MASPs determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the MASPs comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.

The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“**ESG**”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.

4.2 Rationale for the Benchmark(s)

In seeking to provide a reliable Benchmark with which to settle Monthly Average Futures and Traded Average Price Options, a mean average methodology is considered to be the most appropriate (as opposed to a mode) as the mean average calculation would also reflect any price fluctuations experienced intra-month, whereas other forms of averaging calculation would not reflect any outlying prices.

4.3 Market Reality Measured

The MASPs are used to value and settle Monthly Average Futures and Traded Average Price Options. The MASPs represent the mean average daily price of the current calendar month of one lot of the relevant metal which complies with the specifications set out in the LME Rulebook. The MASPs are calculated using the Official Settlement Prices as input data and so underlying the MASPs is the market reality which the Official Settlement Prices seeks to represent.

For more information in relation to the input data used to determine the MASPs, please see the Benchmark Statement for the Official Prices available on the LME Website.

4.4 Geographical Boundaries

The MASPs are calculated using the Official Settlement Prices as input data. Consequently, the geographical boundaries which apply to the Official Settlement Prices consequently apply to the MASPs. Therefore, the value of the relevant metal that is reflected in the trading activity taken into account in determining the Official Prices will also be reflected in the MASPs. Amongst other things, this takes into account the fact that LME Contracts are capable of being settled by being



physically delivered into an LME Warehouse. As such, the MASPs may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may include, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

4.5 Other Information

The population of participants active in trading on the LME's Execution Venues is difficult to determine definitively as trading may take place both directly on the LME's Execution Venues (by Members) as well as indirectly (by the wider market participant population, through Members). Monthly Average Futures may be traded on LMEselect and on the inter-office market. However, only Category 1 Members are capable of trading in the Ring (where Official Prices ordinarily derive their input data).

An up-to-date list of members of the LME by category can be found on the LME Website.

Market information about Monthly Average Futures and Traded Average Price Options, including market and exchange open interest, is published on the LME Website on a daily basis.

5 Benchmark Methodology

5.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology which can be found on the LME Website. The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.

As the MASPs are calculated using the Official Settlement Prices as input data, the Benchmark Methodology for the Official Prices should also be read in conjunction with this Benchmark Statement. This methodology also sets out the arrangements for pricing in the event business continuity procedures are invoked, for example, when the Ring is unavailable or trading is disrupted.

5.2 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and pricing objection windows in relation to the Official Settlement Prices, during which objections to provisionally-determined prices may be submitted before they are finalised and used as inputs to the MASPs.

Users of the constituent Benchmarks may dispute a Benchmark after publication. Publication times and corresponding dispute periods are detailed in the Monthly Average Settlement Prices Benchmark Methodology.

In the event that the LME becomes aware that an inaccurate price is published to the market, the LME will follow its standard process assessing the potential impact of the error and, where



appropriate, for notifying the market (and market data vendors) of the error and correcting the published price accordingly.

6 Limitations of the Benchmarks

As the MASPs are calculated using the Official Settlement Prices as their input data, the MASPs are indirectly subject to the limitations faced by the Official Settlement Prices. For more information, including how the Official Settlement Prices are determined, including where there is insufficient input data and the impact Disruption Events have on these prices, please see the Benchmark Statement and Benchmark Methodology for the Official Prices which is available on the LME Website.

Additionally, the MASPs themselves may be affected by Disruption Events as detailed in the MASPs Benchmark Methodology. Further information relating to Disruption Events can be found on the LME Website.

7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.

The LME Benchmark Changes and Cessation Procedure, which details the LME's arrangements for consulting on proposed changes and cessations (where applicable), can be found on the LME Website.

8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

Item 1. Name of the benchmark administrator	The London Metal Exchange
Item 2. Type of benchmark or family of benchmarks.	Commodity Benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Monthly Average Settlement Prices
Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



ESG objectives or benchmarks that take into account ESG factors?	
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
<p>Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.</p>	
(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.
Item 8. Data and standards used	
(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.



**SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE
TRANSITION AND UK PARIS-ALIGNED BENCHMARKS**

Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or ‘UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.
(c) Overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.

**SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS
AGREEMENT**

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:

(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.

(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.
(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021. Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.

9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	18/10/2021
2.0	20/05/2022

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MASPs Benchmark Methodology

Appendix 7A (redline)

Appendix 7B (clean)



LME Monthly Average Settlement Prices – Benchmark Methodology

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Methodology is published pursuant to Annex II of the BMR in respect of the LME Monthly Average Settlement Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

~~25 January~~20 May 2022

2.3 Review of Benchmark Methodology

This Benchmark Methodology is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually.

Proposed changes to the Benchmark Methodology (whether resulting from the annual review process or otherwise) shall be handled in accordance with the **Benchmark Changes and Cessation Procedure**. The **Benchmark Changes and Cessation Procedure** sets out how, and the circumstances in which, the LME will seek market participant views in relation to a proposed change.

Proposed changes shall be considered by the LME Pricing and Valuations Committee.

2.4 Key Definitions

This Benchmark Methodology should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the ~~LME’s website~~[LME Website](#). Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

In this Benchmark Methodology, the following specific definitions shall apply:

~~“**Prompt Date**” means the Business Day on which the relevant Monthly Average Future may be cash settled in the current calendar month.~~

“Prompt Date” means the Business Day on which the relevant Monthly Average Future may be cash settled in the current calendar month.

“Substituted Price” means the value that replaces the Official Settlement Price as input data for each affected Business Day following a Disruption Event.



3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the ~~LME's website~~ [LME Website](#). As at the date of the last update to this Benchmark Methodology, ~~the Benchmarks were as follows~~ a MASP is determined each calendar month for the following:

- (a) LME Aluminium ~~Monthly Average Settlement Price~~;
- (b) LME Aluminium Alloy ~~Monthly Average Settlement Price~~;
- (c) LME Copper ~~Monthly Average Settlement Price~~;
- (d) LME NASAAC ~~Monthly Average Settlement Price~~;
- (e) LME Nickel ~~Monthly Average Settlement Price~~;
- (f) LME Lead ~~Monthly Average Settlement Price~~;
- (g) LME Tin ~~Monthly Average Settlement Price~~; and
- (h) LME Zinc ~~Monthly Average Settlement Price~~,

(collectively, the “MASPs”).

4 Benchmark Methodology

4.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Methodology is used on the last Business Day of each calendar month to calculate the MASPs.

The MASPs are typically published before 13:45 London time on the last Business Day of each calendar month or as soon as practically possible once the input data is available for their calculation.

4.1.1 General Methodology

The MASP is the mean average of each Official Settlement Price for the relevant LME metal published in the calendar month in which the MASP is determined.

~~The MASP is calculated as the aggregate of the Official Settlement Prices for the relevant LME metal for every Business Day in the relevant tradeable month divided by the number of Business Days for that month.~~

As each calculation of a MASP uses as its input data the Official Settlement Prices for the relevant LME metal, the MASP is closely connected to the Official Prices. This Benchmark Methodology should be read alongside the Benchmark Statement for the MASPs, as well as the Benchmark Statement and Benchmark Methodology for the Official Prices. The Official Prices Benchmark Statement and Benchmark Methodology is available on the ~~LME's website~~ [LME Website](#).



4.1.2 Disruption Events

Where the Official Settlement Prices are used as input data for the MASPs, a Disruption Event causing Disrupted Official Settlement Prices to be published for a base metal will subsequently impact the MASP calculation for that metal for the calendar month in which the Disruption Event occurred.

To ensure the integrity of the MASP calculation averaging periods during periods affected by Disruption Events, each Business Day where a Disruption Event occurred shall continue to count as a Business Day for the purposes of the MASP calculation. By applying this method, the number of Business Days within the relevant averaging period will remain the same overall. However, the Official Settlement Price used as input data for each affected Business Day will instead be the Substituted Price for the purpose of the MASP calculation.

For the disrupted metal, on the next Business Day that is not affected by a Disruption Event, the Disrupted Official Settlement Price for each consecutively preceding affected Business Day in the current calendar month will be replaced by the Substituted Price and used as input data for the purpose of the MASP calculation. The Substituted Price will be the Official Settlement Price for that metal for that Business Day.

Where the Disruption Event has occurred on the last Business Day of the calendar month, see Month End Disruption Events below.

Further information relating to Disruption Events can be found on the LME Website.

4.1.3 Month End Disruption Events

Where a Month End Disruption Event occurs, the MASP for the disrupted metal on the last Business Day of the calendar month will initially be calculated and disseminated using any Disrupted Official Settlement Prices for that Business Day.

The MASP shall then be recalculated and republished on the Business Day when the next available Official Settlement Price is published, and in any event, on the fifth Business Day following a Month End Disruption Event using the Substituted Price where applicable and as determined below:

The Substituted Price will typically be determined as the Official Settlement Price from the next available Business Day that is not subject to a Disruption Event. However, if there are five consecutive Disruption Events for a particular Official Settlement Price following a Month End Disruption Event, the Substituted Price that will be used as input data for the calculation of the MASP both as the value for the date of the Month End Disruption Event and any consecutively preceding dates where the Official Settlement Price was disrupted will be determined as follows:

- where the fifth Disruption Event was caused by reaching daily price limits, then the most recent relevant Disrupted Official Settlement Price will be the Substituted Price;
- where the fifth Disruption Event is caused by the market being suspended, then the LME may use Expert Judgement to determine the Substituted Price.



4.1.24.1.4 Minimum Volume Thresholds

There is no minimum volume threshold for the determination of the MASPs, as the MASPs are not directly based on transaction data. The LME has procedures in place to ensure that it has input data for each Prompt Date of a pricing period to enable it to be able to conduct the arithmetic averaging calculation.

4.2 Relative Importance of Benchmark Criteria

As the MASPs are calculated as a mean average ~~of the Official Settlement Prices~~, no specific input data is given relative importance over another, and all input data is treated equally.

4.3 Unit of Publication and Rounding

Each of the MASPs shall be published in USD per metric tonne.

Each of the MASPs is calculated using Official Settlement Prices as input data, and therefore each of the MASPs is linked to and based upon the trading activity for the Underlying Metal (for more information, see the Benchmark Statement and Benchmark Methodology for the Official Prices). Each concluded contract is capable of being physically delivered in accordance with the specifications set out on the ~~LME's website~~ [LME Website](#). In the physical commodity trading market, contracts for the purchase and sale of base metals are generally priced using a US dollar per metric tonne pricing structure. The LME aims at all times to ensure that its products most accurately reflect market realities and so has determined that US dollars per metric tonne is the most appropriate reference unit for its forward contracts, and by consequence, for the MASPs.

The values determined for each of the MASPs will be rounded to the nearest \$0.01.

4.4 Expert Judgement

The MASPs are determined on the basis of a formulaic mean average calculation. No Expert Judgement or discretion is used in the ~~process calculation~~ of ~~determining~~ the MASPs.

However, the ~~inputs~~ [input data](#) for the calculation may themselves be derived using a degree of Expert Judgement. For more information on the Official Settlement Prices and on the procedures that the LME has designed to ensure consistency in the exercise of that Expert Judgement, please see the Benchmark Statement and Benchmark Methodology for the Official Prices available on the ~~LME's website~~ [LME Website](#).

In addition, if (following a Month End Disruption Event and five further consecutive Disruption Events) the fifth Business Day is a Disrupted Official Settlement Price caused by the market being suspended, then the LME may use Expert Judgement to determine the Substituted Price that will be used as input data for the MASPs (both as the value for the date of the Month End Disruption Event and any consecutively preceding dates where the Official Settlement Price was disrupted).

4.5 Assessors

Given the formulaic nature of this methodology, the BMR assessor-related obligations are not relevant to this Benchmark Family.



4.6 Exclusion of Transaction Data

The MASPs do not directly use transaction data. However, when determining the Official Settlement Prices, the LME may elect to exclude certain transaction data from its calculation. Therefore, some transaction data may be indirectly excluded from the calculation of the MASPs through the process of determining the Official Settlement Price. More information can be found in the Official Prices Benchmark Statement and Benchmark Methodology available on the [LME's website](#)-[LME Website](#).

4.7 Pricing Disputes

Pursuant to paragraph 17 of Annex II of the BMR, users of the constituent Benchmarks may dispute a daily pricing determination. Any such dispute must be submitted to the LME in writing to closingprices@lme.com and must be received within thirty (30) minutes of publication via the LME's market data channels of the MASP that is the subject of the dispute. The user must include sufficient information to enable the LME to properly consider the dispute, including (but not limited to) the specific MASP that is the subject of the dispute, and the reason for the dispute.

5 Document Change History

Version	Date
1.0	02/12/2019
1.1	04/01/2021
1.2	15/01/2021
1.3	25/01/2022
<u>2.0</u>	<u>20/05/2022</u>



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LME Monthly Average Settlement Prices – Benchmark Methodology

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Methodology is published pursuant to Annex II of the BMR in respect of the LME Monthly Average Settlement Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

20 May 2022

2.3 Review of Benchmark Methodology

This Benchmark Methodology is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually.

Proposed changes to the Benchmark Methodology (whether resulting from the annual review process or otherwise) shall be handled in accordance with the **Benchmark Changes and Cessation Procedure**. The **Benchmark Changes and Cessation Procedure** sets out how, and the circumstances in which, the LME will seek market participant views in relation to a proposed change.

Proposed changes shall be considered by the LME Pricing and Valuations Committee.

2.4 Key Definitions

This Benchmark Methodology should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website. Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

In this Benchmark Methodology, the following specific definitions shall apply:

“ Prompt Date ”	means the Business Day on which the relevant Monthly Average Future may be cash settled in the current calendar month.
“ Substituted Price ”	means the value that replaces the Official Settlement Price as input data for each affected Business Day following a Disruption Event.



3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Methodology, a MASP is determined each calendar month for the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Copper;
- (d) LME NASAAC;
- (e) LME Nickel;
- (f) LME Lead;
- (g) LME Tin; and
- (h) LME Zinc,

(collectively, the “MASPs”).

4 Benchmark Methodology

4.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Methodology is used on the last Business Day of each calendar month to calculate the MASPs.

The MASPs are typically published before 13:45 London time on the last Business Day of each calendar month or as soon as practically possible once the input data is available for their calculation.

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The MASP is the mean average of each Official Settlement Price for the relevant LME metal published in the calendar month in which the MASP is determined.

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4.1.2 Disruption Events

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To ensure the integrity of the MASP calculation averaging periods during periods affected by Disruption Events, each Business Day where a Disruption Event occurred shall continue to count as a Business Day for the purposes of the MASP calculation. By applying this method, the



number of Business Days within the relevant averaging period will remain the same overall. However, the Official Settlement Price used as input data for each affected Business Day will instead be the Substituted Price for the purpose of the MASP calculation.

For the disrupted metal, on the next Business Day that is not affected by a Disruption Event, the Disrupted Official Settlement Price for each consecutively preceding affected Business Day in the current calendar month will be replaced by the Substituted Price and used as input data for the purpose of the MASP calculation. The Substituted Price will be the Official Settlement Price for that metal for that Business Day.

Where the Disruption Event has occurred on the last Business Day of the calendar month, see Month End Disruption Events below.

Further information relating to Disruption Events can be found on the LME Website.

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4.1.4 Minimum Volume Thresholds

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4.4 Expert Judgement

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4.6 Exclusion of Transaction Data

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NAPs Benchmark Statement

Appendix 8A (redline)

Appendix 8B (clean)



LME Notional Average Prices – Benchmark Statement

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Statement is published pursuant to Article 27 of the BMR in respect of the LME Notional Average Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

~~18 October 2021~~

20 May 2022

2.3 Review of Benchmark Statement

This Benchmark Statement is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually. Additionally, this Benchmark Statement will be reviewed and updated whenever there are material changes to the information set out in it, or in the corresponding Benchmark Methodology.

2.4 Key Definitions

This Benchmark Statement should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the ~~LME’s website~~ LME Website. Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

In this Benchmark Statement, the following specific definitions shall apply:

~~“Prompt Date” means the Business Day on which the relevant Monthly Average Future may be cash settled in the current calendar month.~~

“Prompt Date” means the Business Day on which the relevant Monthly Average Future may be cash settled in the current calendar month.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the ~~LME’s website~~ LME Website. As at the date of the last update to this Benchmark Statement, ~~the Benchmarks were as follows~~ NAPs are determined in relation to a number of Prompt Dates relating to the following:



- (a) LME Aluminium ~~Notional Average Price~~;
 - (b) LME Aluminium Alloy ~~Notional Average Price~~;
 - (c) LME Copper ~~Notional Average Price~~;
 - (d) LME NASAAC ~~Notional Average Price~~;
 - (e) LME Nickel ~~Notional Average Price~~;
 - (f) LME Lead ~~Notional Average Price~~;
 - (g) LME Tin ~~Notional Average Price~~; and
 - (h) LME Zinc ~~Notional Average Price~~,
- (collectively, the “NAPs”).

The NAP determined for each Prompt Date is a Benchmark.

3.2 ISINs

ISIN codes have not been assigned to the NAPs.

4 Regulatory Information

4.1 Classification

The NAPs each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each NAP utilises input data readily available to the LME, ~~primarily including trading activity data, as detailed in the Benchmark Methodology.~~ However NAPs are not categorised as “regulated data” ~~Benchmarks~~ benchmarks, nor are the NAPs determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the NAPs comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.

The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“ESG”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.

4.2 Rationale for the Benchmark(s)

In seeking to provide a reliable Benchmark with which to calculate margin for a Monthly Average Futures and Traded Average Price Options, a mean average methodology is considered to be the most appropriate (as opposed to a mode) as the mean average calculation would also reflect any price fluctuations experienced intra-month, whereas other forms of averaging calculation would not reflect any outlying prices.

4.3 Market Reality Measured

The NAPs are used to value and calculate margin for Monthly Average Futures and Traded Average Price Options. The NAPs represent the rolling mean average daily price in the current calendar month of one lot of the relevant metal which complies with the specifications set out in



the LME Rulebook. The NAPs are calculated using the Official Settlement Prices and Closing Prices as input data and so underlying the NAPs is the market reality which the Official Settlement Prices and Closing Prices seek to represent, ~~which is the price of one lot of metal underlying the relevant LME Future and which complies with the relevant contract specifications during which that metal is tradeable during the period which constitutes Ring 2 (“R2”) (except in the case of Cobalt, it is the period which constitutes Ring 1 (“R1”)) for Official Settlement Prices and in the second Kerb session for Closing Prices and takes into account supply and demand at that point in time.~~

For more information in relation to the input data used to determine the NAPs, please see the Benchmark Statements for the Official ~~Settlement~~ Prices and Closing Prices available on the ~~LME’s website~~ [LME Website](#).

4.4 Geographical Boundaries

The NAPs are calculated using the Official Settlement Prices and Closing Prices as input data. Consequently the geographical boundaries which apply to the Official Settlement Prices and Closing Prices consequently apply to the NAPs. Therefore the value of the relevant metal that is reflected in the trading activity taken into account in determining the Official Settlement Prices and Closing Prices will also be reflected in the NAPs. Amongst other things, this takes into account the fact that LME Contracts are capable of being settled by being physically delivered into an LME Warehouse. As such, the NAPs may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may affect, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

4.5 Other Information

The population of participants active in trading on the LME’s Execution Venues is difficult to determine definitively as trading may take place both directly on the LME’s Execution Venues (by Members) as well as indirectly (by the wider market participant population, through Members). Monthly Average Futures may be traded on LMEselect and on the inter-office market. However, only Category 1 Members are capable of trading in the Ring (where Official Settlement Prices ordinarily derive their input data).

An up-to-date list of members of the LME by category can be found on the ~~LME’s website~~ [LME Website](#).

Market information about Monthly Average Futures, including market and exchange open interest, is published on the ~~LME’s website~~ [LME Website](#) on a daily basis.

5 Benchmark Methodology

5.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology which can be found on the ~~LME’s website~~ [LME Website](#). The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks



are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.

As the NAPs are calculated using the Official Settlement Prices and Closing Prices as input data, the Benchmark Methodologies for the Official Prices and Closing Prices should also be read in conjunction with this Benchmark Statement. These methodologies also set out the arrangements for pricing in the event business continuity procedures are invoked, for example, when the Ring or LMEselect are unavailable or trading is disrupted.

5.2 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and pricing objection windows in relation to the Official Settlement Prices and Closing Prices, during which ~~Members may submit~~ objections to provisionally-determined prices may be submitted before they are finalised and used as inputs to the NAPs.

Users of the constituent Benchmarks may dispute a Benchmark after publication. Publication times and corresponding dispute periods are detailed in the Notional Average Prices Benchmark Methodology.

In the event that the LME becomes aware that an inaccurate price is published to the market, ~~the LME~~ will follow its standard process assessing the potential impact of the error and, where appropriate, for notifying the market (and market data vendors) of the error and correcting the published price accordingly.

6 Limitations of the Benchmarks

As the NAPs are calculated using the Official Settlement Prices and the Closing Prices as their input data, the NAPs are indirectly subject to the limitations faced by the Official Settlement Prices and the Closing Prices. For more information, including how the Official Settlement Prices and the Closing Prices are determined, including where there is insufficient input data and the impact Disruption Events have on these prices, please see the Benchmark Statements and Benchmark Methodologies for the Official Prices and Closing Prices which are available on the [LME's website](#) LME Website.

Additionally, the NAPs themselves may be affected by Disruption Events as detailed in the NAPs Benchmark Methodology. Further information relating to Disruption Events can be found on the LME Website.

7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.



The LME Benchmark Changes and Cessation Procedure, which details the LME's arrangements for consulting on proposed changes and cessations (where applicable), can be found on the [LME's website](#) LME Website.



8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

Item 1. Name of the benchmark administrator	The London Metal Exchange
Item 2. Type of benchmark or family of benchmarks.	Commodity Benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Notional Average Prices
Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.

Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each



constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.

(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.

Item 8. Data and standards used

(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.

SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE TRANSITION AND UK PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or ‘UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.
(c) overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.



SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:

(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.
(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.
(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021. Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.

9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	18/10/2021



Version	Date
<u>2.0</u>	<u>20/05/2022</u>



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LME Notional Average Prices – Benchmark Statement

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Statement is published pursuant to Article 27 of the BMR in respect of the LME Notional Average Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

20 May 2022

2.3 Review of Benchmark Statement

This Benchmark Statement is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually. Additionally, this Benchmark Statement will be reviewed and updated whenever there are material changes to the information set out in it, or in the corresponding Benchmark Methodology.

2.4 Key Definitions

This Benchmark Statement should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website. Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

In this Benchmark Statement, the following specific definitions shall apply:

“**Prompt Date**” means the Business Day on which the relevant Monthly Average Future may be cash settled in the current calendar month.

3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Statement, NAPs are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Copper;
- (d) LME NASAAC;
- (e) LME Nickel;



- (f) LME Lead;
- (g) LME Tin; and
- (h) LME Zinc,

(collectively, the “NAPs”).

The NAP determined for each Prompt Date is a Benchmark.

3.2 ISINs

ISIN codes have not been assigned to the NAPs.

4 Regulatory Information

4.1 Classification

The NAPs each qualify as a “commodity benchmark” pursuant to Article 19 of the BMR. This categorisation is based on the underlying assets falling within the definition of a “commodity” (as referred to in Article 3(1)(23) of the BMR).

Each NAP utilises input data readily available to the LME as detailed in the Benchmark Methodology. However NAPs are not categorised as “regulated data” benchmarks, nor are the NAPs determined using contributions.

Annex II of the BMR applies to this Benchmark Family, as the NAPs comprise Benchmarks that fall within the BMR “commodity benchmark” definition, and do not contain any critical, or other, benchmarks that would bring any of the composite Benchmarks within scope of Title II of the BMR.

The Benchmarks referred to in this Benchmark Statement are not intended to pursue Environmental, Social and Governance (“ESG”) objectives, including decarbonisation and/or the objectives of the Paris Agreement.

4.2 Rationale for the Benchmark(s)

In seeking to provide a reliable Benchmark with which to calculate margin for a Monthly Average Futures and Traded Average Price Options, a mean average methodology is considered to be the most appropriate (as opposed to a mode) as the mean average calculation would also reflect any price fluctuations experienced intra-month, whereas other forms of averaging calculation would not reflect any outlying prices.

4.3 Market Reality Measured

The NAPs are used to value and calculate margin for Monthly Average Futures and Traded Average Price Options. The NAPs represent the rolling mean average daily price in the current calendar month of one lot of the relevant metal which complies with the specifications set out in the LME Rulebook. The NAPs are calculated using the Official Settlement Prices and Closing Prices as input data and so underlying the NAPs is the market reality which the Official Settlement Prices and Closing Prices seek to represent.



For more information in relation to the input data used to determine the NAPs, please see the Benchmark Statements for the Official Prices and Closing Prices available on the LME Website.

4.4 Geographical Boundaries

The NAPs are calculated using the Official Settlement Prices and Closing Prices as input data. Consequently the geographical boundaries which apply to the Official Settlement Prices and Closing Prices consequently apply to the NAPs. Therefore the value of the relevant metal that is reflected in the trading activity taken into account in determining the Official Settlement Prices and Closing Prices will also be reflected in the NAPs. Amongst other things, this takes into account the fact that LME Contracts are capable of being settled by being physically delivered into an LME Warehouse. As such, the NAPs may be subject to distortions based on factors impacting the ability of a party to an LME Contract to physically deliver, or to accept physical delivery, of the Underlying Metal. These factors may affect, for example, the underlying regional supply and demand and warehousing dynamics including (but not limited to) changes in trade policy and government action.

4.5 Other Information

The population of participants active in trading on the LME's Execution Venues is difficult to determine definitively as trading may take place both directly on the LME's Execution Venues (by Members) as well as indirectly (by the wider market participant population, through Members). Monthly Average Futures may be traded on LMEselect and on the inter-office market. However, only Category 1 Members are capable of trading in the Ring (where Official Settlement Prices ordinarily derive their input data).

An up-to-date list of members of the LME by category can be found on the LME Website.

Market information about Monthly Average Futures, including market and exchange open interest, is published on the LME Website on a daily basis.

5 Benchmark Methodology

5.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Statement should be read in conjunction with the corresponding Benchmark Methodology which can be found on the LME Website. The Benchmark Methodology sets out information including, but not limited to, when and how the Benchmarks are determined and elements such as Expert Judgement, Assessors and Minimum Volume Thresholds.

As the NAPs are calculated using the Official Settlement Prices and Closing Prices as input data, the Benchmark Methodologies for the Official Prices and Closing Prices should also be read in conjunction with this Benchmark Statement. These methodologies also set out the arrangements for pricing in the event business continuity procedures are invoked, for example, when the Ring or LMEselect are unavailable or trading is disrupted.

5.2 Procedures for Dealing with Errors in Input Data

The LME has a number of controls in place to prevent inaccurate pricing data being published to the market. These arrangements include, but are not limited to, pre-publication review and pricing objection windows in relation to the Official Settlement Prices and Closing Prices, during



which objections to provisionally-determined prices may be submitted before they are finalised and used as inputs to the NAPs.

Users of the constituent Benchmarks may dispute a Benchmark after publication. Publication times and corresponding dispute periods are detailed in the Notional Average Prices Benchmark Methodology.

In the event that the LME becomes aware that an inaccurate price is published to the market, the LME will follow its standard process assessing the potential impact of the error and, where appropriate, for notifying the market (and market data vendors) of the error and correcting the published price accordingly.

6 Limitations of the Benchmarks

As the NAPs are calculated using the Official Settlement Prices and the Closing Prices as their input data, the NAPs are indirectly subject to the limitations faced by the Official Settlement Prices and the Closing Prices. For more information, including how the Official Settlement Prices and the Closing Prices are determined, including where there is insufficient input data and the impact Disruption Events have on these prices, please see the Benchmark Statements and Benchmark Methodologies for the Official Prices and Closing Prices which are available on the LME Website.

Additionally, the NAPs themselves may be affected by Disruption Events as detailed in the NAPs Benchmark Methodology. Further information relating to Disruption Events can be found on the LME Website.

7 Changes to, and Cessation of, a Benchmark

It is possible that certain factors, including factors beyond the control of the LME, may necessitate changes to, or the cessation of on either a temporary or a permanent basis, one or more of the Benchmarks within this Benchmark Family.

A change to, or cessation of, a Benchmark may have an impact on financial contracts or financial instruments (in each case as defined within the BMR) that reference that Benchmark.

The LME Benchmark Changes and Cessation Procedure, which details the LME's arrangements for consulting on proposed changes and cessations (where applicable), can be found on the LME Website.



8 ESG Factors

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT

SECTION 1 – CONSIDERATION OF ESG FACTORS

Item 1. Name of the benchmark administrator	The London Metal Exchange
Item 2. Type of benchmark or family of benchmarks.	Commodity Benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Notional Average Prices
Item 4. Are there in the portfolio of the benchmark administrator any UK Climate Transition Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Item 6. Where the response to Item 5 is positive, provide the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
(a) List of combined ESG factors:	Details on each factor: Not applicable.
(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
<p>Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years. The score of the ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.</p>	
(a) List of combined ESG factors:	Details on each factor: Not applicable.



(b) List of environmental factors:	Details on each factor: Not applicable.
(c) List of social factors:	Details on each factor: Not applicable.
(d) List of governance factors:	Details on each factor: Not applicable.
Hyperlink to the information on ESG factors for each benchmark:	Not applicable.

Item 8. Data and standards used

(a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Not applicable.
(b) Reference standards.	Not applicable.

SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR UK CLIMATE TRANSITION AND UK PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as ‘UK Climate Transition Benchmark’ or ‘UK Paris-aligned Benchmark’, benchmark administrators shall also disclose the following information:

(a) Forward-looking year-on-year decarbonisation trajectory;	Not applicable.
(b) Degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable.
(c) overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of EU Regulation 2020/1818, using the active share at asset level.	Not applicable.

SECTION 3 –DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, UK Climate Transition Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:



(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(b) The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	Not applicable.
(c) The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable.
(d) The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable.
(e) The hyperlink to the website of the temperature scenario used.	Not applicable.
Date on which information has last been updated and reason for the update:	15 January 2021. Implementation of the requirements of Commission Delegated Regulation (EU) 2020/1816.

9 Document Change History

Version	Date
1.0	02/12/2019
1.1	19/02/2020
1.2	15/01/2021
1.3	18/10/2021
2.0	20/05/2022



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NAPs Benchmark Methodology

Appendix 9A (redline)

Appendix 9B (clean)



LME Notional Average Prices – Benchmark Methodology

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Methodology is published pursuant to Annex II of the BMR in respect of the LME Notional Average Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

~~25 January~~20 May 2022

2.3 Review of Benchmark Methodology

This Benchmark Methodology is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually.

Proposed changes to the Benchmark Methodology (whether resulting from the annual review process or otherwise) shall be handled in accordance with the **Benchmark Changes and Cessation Procedure**. The **Benchmark Changes and Cessation Procedure** sets out how, and the circumstances in which, the LME will seek market participant views in relation to a proposed change.

Proposed changes shall be considered by the LME Pricing and Valuations Committee.

2.4 Key Definitions

This Benchmark Methodology should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the [LME’s website](#). Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

In this Benchmark Methodology, the following specific definitions shall apply:

“Substituted Price” means the value that replaces the Official Settlement Price as input data for each affected Business Day following a Disruption Event.



3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the [LME's website-LME Website](#). As at the date of the last update to this Benchmark Methodology, ~~the Benchmarks were as follows~~ NAPs are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium ~~Notional Average Price~~;
- (b) LME Aluminium Alloy ~~Notional Average Price~~;
- (c) LME Copper ~~Notional Average Price~~;
- (d) LME NASAAC ~~Notional Average Price~~;
- (e) LME Nickel ~~Notional Average Price~~;
- (f) LME Lead ~~Notional Average Price~~;
- (g) LME Tin ~~Notional Average Price~~; and
- (h) LME Zinc ~~Notional Average Price~~,

(collectively, the “NAPs”).

The NAP determined for each Prompt Date is a Benchmark.

4 Benchmark Methodology

4.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Methodology is used each Business Day to calculate the NAPs.

The NAPs are typically published each Business Day at around 18:15 London time or as soon as practically possible once the input data is available for their calculation.

4.1.1 General Methodology

The NAPs is the mean average of:

- (a) each Official Settlement Price for the relevant LME metal published in the calendar month in which the relevant NAP is determined; and
- (b) the Closing Price for the relevant LME metal published for each unexpired Prompt Date in the calendar month in which the relevant NAP is determined.

The NAP is calculated as the aggregate of the Official Settlement Prices for Cash and, where no Official Settlement Prices for Cash have been established, the Closing Prices for each Business Day in a month, divided by the number of Business Days in that month.

Where the calculation of the NAP requires the Closing Price for a Prompt Date which is not available, the LME shall either:

- (1) use the Closing Price for the next available Prompt Date; or
- (2) where only the Closing Price for a particular week or month is available (i.e. a Closing Price is not published for each Prompt Date within that particular week or month), derive a daily price on the basis of interpolation.



As each calculation of a NAP uses as its input data the Official Settlement Prices and Closing Prices for the relevant LME metal, the NAP is closely connected to the Official Prices and Closing Prices¹. This Benchmark Methodology should be read alongside the Benchmark Statement for the NAPs, as well as the Benchmark Statements and Benchmark Methodologies for the Official Prices and Closing Prices. The Official Prices and Closing Prices' Benchmark Statement and Benchmark Methodology are available on the [LME's website](#) [LME Website](#).

4.1.2 Disruption Events

Where the Official Settlement Prices and Closing Prices (as applicable) are used as input data for the NAP, a Disruption Event causing Disrupted Official Settlement Prices and/or Disrupted Closing Prices to be published for a base metal will subsequently impact each NAP for that metal for any Prompt Date where those Disrupted Official Settlement Prices and/or Disrupted Closing Prices are used.

To ensure the integrity of the NAP calculation averaging periods during periods affected by Disruption Events, each Business Day where a Disruption Event occurred shall continue to count as a Business Day for the purposes of the NAP calculation. By applying this method, the number of Business Days within the relevant averaging period will remain the same overall. However, the Official Settlement Price used as input data for each affected Business Day will instead be the Substituted Price for the purpose of the NAP calculation.

On a Business Day where a Disruption Event has occurred, each NAP for the disrupted metal for that Business Day will be calculated and disseminated using any Disrupted Official Settlement Prices and Disrupted Closing Prices (as applicable) for that Business Day.

For a disrupted metal, on the next Business Day that is not affected by a Disruption Event, the Disrupted Official Settlement Price for each consecutively preceding affected Business Day in the current calendar month will be replaced by the Substituted Price and used as input data for the purpose of the NAP calculation. The Substituted Price will be the Official Settlement Price for that metal for that Business Day.

Where a Disruption Event has occurred causing Disrupted Closing Prices to be published, the Disrupted Closing Prices will continue to be used for the purpose of the NAP calculation.

Further information relating to Disruption Events can be found on the [LME Website](#).

4.1.24.1.3 Minimum Volume Thresholds

There is no minimum volume threshold for the determination of the NAPs, as the NAPs are not directly based on transaction data. As set out in paragraph 4.1.1, the LME has procedures in place to ensure that it has input data for each Prompt Date of a pricing period to enable it to be able to conduct the arithmetic averaging calculation.

¹ not all of the Closing Prices used as input data for the determination of the NAPs are in scope of the BMR. See LME List of Benchmarks published on the [LME's website](#) [LME Website](#).



4.2 Relative Importance of Benchmark Criteria

As the NAPs are calculated as a mean average ~~of the Official Settlement Prices and Closing Prices~~, no specific input data is given relative importance over another, and all input data is treated equally.

4.3 Unit of Publication and Rounding

Each of the NAPs shall be published in USD per metric tonne.

Each of the NAPs is calculated using Official Settlement Prices and Closing Prices as input data, and therefore each of the NAPs is linked to and based upon the trading activity for the Underlying Metal (for more information, see the Benchmark Statements and Benchmark Methodologies for the Official Prices and the Closing Prices). Each concluded contract is capable of being physically delivered in accordance with the specifications set out on the ~~LME's website~~ [LME Website](#). In the physical commodity trading market, contracts for the purchase and sale of base metals are generally priced using a US dollar per metric tonne pricing structure. The LME aims at all times to ensure that its products most accurately reflect market realities and so has determined that US dollars per metric tonne is the most appropriate reference unit for its forward contracts, and by consequence, for the NAPs.

The values determined for each of the NAPs will be rounded to the nearest \$0.01.

4.4 Expert Judgement

The NAPs are determined on the basis of a formulaic mean average calculation. No Expert Judgement or discretion is used in the ~~process~~ [calculation](#) of ~~determining~~ the NAPs.

Where the calculation of the NAP requires the Closing Price for a Prompt Date which is not available, Expert Judgement is not exercised as the LME's Trading Operations team are not able to exercise discretion and must derive the individual prices on the basis of the two options set out in 4.1.1 above.

However, the ~~inputs~~ [input data](#) for the calculation themselves may be derived using a degree of Expert Judgement. For more information on the Official Settlement Prices and Closing Prices and on the procedures that the LME has designed to ensure consistency in the exercise of that Expert Judgement, please see the Benchmark Statement and Benchmark Methodology for the Official Prices and Closing Prices available on the ~~LME's website~~ [LME Website](#).

In addition, if (following a Month End Disruption Event and five further consecutive Disruption Events) the fifth Business Day is a Disrupted Official Settlement Price caused by the market being suspended, then the LME may use Expert Judgement to determine the Substituted Price that will be used as input data for the NAPs (both as the value for the date of the Month End Disruption Event and any consecutively preceding dates where the Official Settlement Price was disrupted).

4.5 Assessors

Given the formulaic nature of this methodology, the BMR assessor-related obligations are not relevant to this Benchmark Family.



4.6 Exclusion of Transaction Data

The NAPs do not directly use transaction data. However, when determining the Official Settlement Prices and the Closing Prices, the LME may elect to exclude certain transaction data from its calculation. Therefore, some transaction data may be indirectly excluded from the calculation of the NAPs, through the process of determining the Official Settlement Prices and the Closing Prices. More information can be found in the Official Prices and Closing Prices' Benchmark Statements and Benchmark Methodologies available on the [LME's website](#) [LME Website](#).

4.7 Pricing Disputes

Pursuant to paragraph 17 of Annex II of the BMR, users of the constituent Benchmarks may dispute a daily pricing determination. Any such dispute must be submitted to the LME in writing to closingprices@lme.com and must be received within thirty (30) minutes of publication via the LME's market data channels of the NAP that is the subject of the dispute. The user must include sufficient information to enable the LME to properly consider the dispute, including (but not limited to) the specific NAP that is the subject of the dispute, and the reason for the dispute.

5 Document Change History

Version	Date
1.0	02/12/2019
1.1	04/01/2021
1.2	15/01/2021
1.3	25/01/2022
<u>2.0</u>	<u>20/05/2022</u>



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LME Notional Average Prices – Benchmark Methodology

1 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 fall within the definition of ‘benchmark’ pursuant to the BMR.

This Benchmark Methodology is published pursuant to Annex II of the BMR in respect of the LME Notional Average Prices Benchmark Family.

2 General Information

2.1 Date of Original Publication

2 December 2019

2.2 Date of Last Update

20 May 2022

2.3 Review of Benchmark Methodology

This Benchmark Methodology is subject to periodic review by the LME Pricing and Valuations Committee. Reviews shall be completed at least annually.

Proposed changes to the Benchmark Methodology (whether resulting from the annual review process or otherwise) shall be handled in accordance with the **Benchmark Changes and Cessation Procedure**. The **Benchmark Changes and Cessation Procedure** sets out how, and the circumstances in which, the LME will seek market participant views in relation to a proposed change.

Proposed changes shall be considered by the LME Pricing and Valuations Committee.

2.4 Key Definitions

This Benchmark Methodology should be read in conjunction with the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website. Any capitalised terms not specifically defined in this section shall have the meaning given to them in the Definitions.

In this Benchmark Methodology, the following specific definitions shall apply:

“**Substituted Price**” means the value that replaces the Official Settlement Price as input data for each affected Business Day following a Disruption Event.



3 Benchmarks

3.1 Constituent Benchmarks

The Benchmark Family comprises the Benchmarks identified in the **LME List of Benchmarks** published on the LME Website. As at the date of the last update to this Benchmark Methodology, NAPs are determined in relation to a number of Prompt Dates relating to the following:

- (a) LME Aluminium;
- (b) LME Aluminium Alloy;
- (c) LME Copper;
- (d) LME NASAAC;
- (e) LME Nickel;
- (f) LME Lead;
- (g) LME Tin; and
- (h) LME Zinc,

(collectively, the “**NAPs**”).

The NAP determined for each Prompt Date is a Benchmark.

4 Benchmark Methodology

4.1 Criteria and Procedures used to determine the Benchmarks

This Benchmark Methodology is used each Business Day to calculate the NAPs.

The NAPs are typically published each Business Day at around 18:15 London time or as soon as practically possible once the input data is available for their calculation.

4.1.1 General Methodology

The NAPs is the mean average of:

- (a) each Official Settlement Price for the relevant LME metal published in the calendar month in which the relevant NAP is determined; and
- (b) the Closing Price for the relevant LME metal published for each unexpired Prompt Date in the calendar month in which the relevant NAP is determined.

The NAP is calculated as the aggregate of the Official Settlement Prices for Cash and, where no Official Settlement Prices for Cash have been established, the Closing Prices for each Business Day in a month, divided by the number of Business Days in that month.

Where the calculation of the NAP requires the Closing Price for a Prompt Date which is not available, the LME shall either:

- (1) use the Closing Price for the next available Prompt Date; or
- (2) where only the Closing Price for a particular week or month is available (i.e. a Closing Price is not published for each Prompt Date within that particular week or month), derive a daily price on the basis of interpolation.



As each calculation of a NAP uses as its input data the Official Settlement Prices and Closing Prices for the relevant LME metal, the NAP is closely connected to the Official Prices and Closing Prices¹. This Benchmark Methodology should be read alongside the Benchmark Statement for the NAPs, as well as the Benchmark Statements and Benchmark Methodologies for the Official Prices and Closing Prices. The Official Prices and Closing Prices' Benchmark Statement and Benchmark Methodology are available on the LME Website.

4.1.2 Disruption Events

Where the Official Settlement Prices and Closing Prices (as applicable) are used as input data for the NAP, a Disruption Event causing Disrupted Official Settlement Prices and/or Disrupted Closing Prices to be published for a base metal will subsequently impact each NAP for that metal for any Prompt Date where those Disrupted Official Settlement Prices and/or Disrupted Closing Prices are used.

To ensure the integrity of the NAP calculation averaging periods during periods affected by Disruption Events, each Business Day where a Disruption Event occurred shall continue to count as a Business Day for the purposes of the NAP calculation. By applying this method, the number of Business Days within the relevant averaging period will remain the same overall. However, the Official Settlement Price used as input data for each affected Business Day will instead be the Substituted Price for the purpose of the NAP calculation.

On a Business Day where a Disruption Event has occurred, each NAP for the disrupted metal for that Business Day will be calculated and disseminated using any Disrupted Official Settlement Prices and Disrupted Closing Prices (as applicable) for that Business Day.

For a disrupted metal, on the next Business Day that is not affected by a Disruption Event, the Disrupted Official Settlement Price for each consecutively preceding affected Business Day in the current calendar month will be replaced by the Substituted Price and used as input data for the purpose of the NAP calculation. The Substituted Price will be the Official Settlement Price for that metal for that Business Day.

Where a Disruption Event has occurred causing Disrupted Closing Prices to be published, the Disrupted Closing Prices will continue to be used for the purpose of the NAP calculation.

Further information relating to Disruption Events can be found on the LME Website.

4.1.3 Minimum Volume Thresholds

There is no minimum volume threshold for the determination of the NAPs, as the NAPs are not directly based on transaction data. As set out in paragraph 4.1.1, the LME has procedures in place to ensure that it has input data for each Prompt Date of a pricing period to enable it to be able to conduct the arithmetic averaging calculation.

4.2 Relative Importance of Benchmark Criteria

As the NAPs are calculated as a mean average, no specific input data is given relative importance over another, and all input data is treated equally.

¹ not all of the Closing Prices used as input data for the determination of the NAPs are in scope of the BMR. See LME List of Benchmarks published on the LME Website.



4.3 Unit of Publication and Rounding

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Each of the NAPs is calculated using Official Settlement Prices and Closing Prices as input data, and therefore each of the NAPs is linked to and based upon the trading activity for the Underlying Metal (for more information, see the Benchmark Statements and Benchmark Methodologies for the Official Prices and the Closing Prices). Each concluded contract is capable of being physically delivered in accordance with the specifications set out on the LME Website. In the physical commodity trading market, contracts for the purchase and sale of base metals are generally priced using a US dollar per metric tonne pricing structure. The LME aims at all times to ensure that its products most accurately reflect market realities and so has determined that US dollars per metric tonne is the most appropriate reference unit for its forward contracts, and by consequence, for the NAPs.

The values determined for each of the NAPs will be rounded to the nearest \$0.01.

4.4 Expert Judgement

The NAPs are determined on the basis of a formulaic mean average calculation. No Expert Judgement or discretion is used in the calculation of the NAPs.

Where the calculation of the NAP requires the Closing Price for a Prompt Date which is not available, Expert Judgement is not exercised as the LME's Trading Operations team are not able to exercise discretion and must derive the individual prices on the basis of the two options set out in 4.1.1 above.

However, the input data for the calculation themselves may be derived using a degree of Expert Judgement. For more information on the Official Settlement Prices and Closing Prices and on the procedures that the LME has designed to ensure consistency in the exercise of that Expert Judgement, please see the Benchmark Statement and Benchmark Methodology for the Official Prices and Closing Prices available on the LME Website.

In addition, if (following a Month End Disruption Event and five further consecutive Disruption Events) the fifth Business Day is a Disrupted Official Settlement Price caused by the market being suspended, then the LME may use Expert Judgement to determine the Substituted Price that will be used as input data for the NAPs (both as the value for the date of the Month End Disruption Event and any consecutively preceding dates where the Official Settlement Price was disrupted).

4.5 Assessors

Given the formulaic nature of this methodology, the BMR assessor-related obligations are not relevant to this Benchmark Family.

4.6 Exclusion of Transaction Data

The NAPs do not directly use transaction data. However, when determining the Official Settlement Prices and the Closing Prices, the LME may elect to exclude certain transaction data from its calculation. Therefore, some transaction data may be indirectly excluded from the calculation of the NAPs, through the process of determining the Official Settlement Prices and



the Closing Prices. More information can be found in the Official Prices and Closing Prices' Benchmark Statements and Benchmark Methodologies available on the LME Website.

4.7 Pricing Disputes

Pursuant to paragraph 17 of Annex II of the BMR, users of the constituent Benchmarks may dispute a daily pricing determination. Any such dispute must be submitted to the LME in writing to closingprices@lme.com and must be received within thirty (30) minutes of publication via the LME's market data channels of the NAP that is the subject of the dispute. The user must include sufficient information to enable the LME to properly consider the dispute, including (but not limited to) the specific NAP that is the subject of the dispute, and the reason for the dispute.

5 Document Change History

Version	Date
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Benchmark Changes and Cessation Procedure

Appendix 10A (redline)

Appendix 10B (clean)



LME Benchmark Changes and Cessation Procedure

1 Overview of the Procedure

- 1.1 The London Metal Exchange Limited (the “LME”) is the Administrator of a number of Benchmarks. More information about the LME’s Benchmarks can be found on the LME’s website.
- 1.2 This Procedure sets out the steps that the LME will take in its capacity as Administrator pursuant to article 28(1) of the BMR, in relation to any proposal to: (1) make a material change to; or (2) cease to provide, a Benchmark (other than the LPP Prices).
- 1.3 ~~1.3~~ The Pricing & Valuations Committee has overall responsibility for this Procedure, and shall be ~~—~~responsible for its periodic review and, where required, update of it.

2 Defined Terms

- 2.1 Any capitalised words not defined in this Procedure shall have the meaning given to them in the ~~document entitled “Benchmark Administration – Definitions” and~~ document (“Definitions”) available on the ~~LME’s website~~ LME Website with the exception of the term “Benchmark”. For the purposes of this Procedure, the term “Benchmark” shall exclude the LPP Prices. Changes to, and cessations of, one or more of the LPP Prices shall be addressed in the LBMA Platinum and LBMA Palladium Prices Regulations (“LPP Prices Regulations”).

3 Changes to a Benchmark

- 3.1 The LME may, from time to time, seek to make changes to its ~~Benchmarks~~ Benchmark Methodologies. A proposal to make such a change may originate from a range of sources, including (on a non-exhaustive basis) as a result of the LME’s periodic review of its Benchmark Methodologies, in the light of feedback from Benchmark users on the operation of a Benchmark, or in light of industry or regulatory developments.
- 3.2 Examples of the circumstances in which the LME may consider making a change to a Benchmark Methodology include (on a non-exhaustive basis) the following:
 - (a) the LME no longer considers the methodology used to determine the Benchmark to accurately reflect the economic or market reality that the Benchmark is intended to measure;
 - (b) market feedback (whether formal or informal) suggests that the methodology is unreflective of the economic or market reality that the Benchmark is intended to measure, or may lead to inaccurate benchmark values being generated;
 - (c) additional, or different, pricing requirements are needed by LME Clear in connection with a Benchmark that is utilised in the CCP risk management or margining processes;
 - (d) the LME is no longer in receipt of third-party data which is needed to calculate the Benchmark;
 - (e) there is a change in the provider of clearing services to the LME; and
 - (f) a ~~compulsory~~ change is otherwise required or desirable in order to facilitate compliance with the LME’s regulatory obligations, or to reflect market structural changes made by the LME to the way in which the LME’s markets operate.
- 3.3 ~~Where~~ Subject to paragraphs 3.4, 5.3(b) and 6.1, where a proposed change is identified as being material, the LME will follow the steps set out in this Procedure. ~~Where~~ a change is considered



to be non-material, the LME may elect to follow the steps set out in this Procedure. The Pricing & Valuations Committee shall determine whether a proposed change is material or non-material.

- 3.4 Where a change is material, but to follow the steps set out in this Procedure would be inconsistent with the LME's regulatory obligations as the operator of a trading venue, the LME shall, in its sole discretion, elect not to follow this Procedure.
- 3.5 Whether a proposed change is material shall be a matter for the LME to determine in its sole discretion. In making this determination, the LME will have regard to a range of factors. The factors to be considered will depend on the specific proposal, and on the relevant circumstances but could include (on an illustrative, non-exhaustive basis) the extent of the use (in a BMR sense) of the relevant Benchmark and the relative maturities of the products referencing the Benchmark, and the anticipated operational and regulatory impact on users of the Benchmark were the proposed change to be made. In order to assess potential materiality, the LME may seek informal views from Benchmark users.

4 Cessation of a Benchmark

- 4.1 The LME may, from time to time, consider the cessation of a Benchmark: on either a temporary or a permanent basis. This could occur, for example, where the LME has, or proposes to, suspend trading in and/or de-list a particular contract that is admitted to trading on the LME, and where trading activity in that contract provides the input data for, or otherwise utilises, the relevant Benchmark.
- 4.2 Where the LME proposes, or otherwise considers it necessary, to cease to provide a Benchmark, it will typically follow the steps set out in this Procedure. ~~However other than where it is not practicable for the LME to do so. In particular~~, the LME shall not be obligated to follow this Procedure where to do so would conflict with its regulatory obligations as the operator of a trading venue (including, without limitation, where giving notice of cessation of a Benchmark would cause, or risks causing, a disorderly market).

5 Consultation Process

- 5.1 Subject to paragraphs 3.4 and 4.2 above, the LME will consult with Benchmark users in relation to a proposed change to a Benchmark Methodology, or a proposed cessation of a Benchmark, through a consultation notice sent to Members and users, and published on the LME ~~website~~Website.
- 5.2 The consultation notice shall, as a minimum, set out:
- (a) the rationale for the proposed change or cessation, including, in the case of a material change, the LME's assessment of whether the representativeness of the Benchmark, and its appropriateness as a reference for financial instruments and contracts, would be put at risk if a proposed material change were not made;
 - (b) sufficient information to allow users of the relevant Benchmark(s) to assess the proposal, including, in the case of a material change, the key elements of the Benchmark Methodology that would, in the LME's view, be affected by the proposed material change; and
 - (c) details regarding the process by which users may provide feedback on the proposed changes, and the end date of the consultation.



- 5.3 The LME will typically allow a consultation period of four weeks, where practicable. In certain exceptional circumstances, including (on a non-exhaustive basis) where a compulsory change is required immediately to facilitate compliance with the LME's regulatory obligations, the LME may, in its discretion:
- (a) elect to conduct the consultation over a shorter period; or
 - (b) elect not to follow this Procedure.
- 5.4 Following the end of a consultation, the LME will give due consideration to any feedback received from users and maintain a record of that feedback.
- 5.5 The LME will subsequently publish a further notice setting out:
- (a) the outcome of the consultation, including addressing users' comments (where appropriate, and not subject to confidentiality or other non-disclosure obligations) and the LME's response to such comments;
 - (b) the actions that the LME has determined shall be taken;
 - (c) applicable implementation dates;
 - (d) where applicable, relevant Benchmark Methodologies and Benchmark Statements;
 - (e) information regarding any other implementation measures that the LME shall take in connection with the relevant change or cessation (including, for example, the suspension of any contracts admitted to trading on the LME that reference the affected Benchmark and associated actions to be taken to facilitate the closing out of any open positions).

6 LME's Regulatory Obligations

- 6.1 —Notwithstanding any provision in this Procedure, the LME shall at all times be entitled to take any actions necessary to comply with its regulatory obligations as the operator of a trading venue, including the requirement to ensure the orderly functioning of its markets.

7 Document Change History

Version	Date
1.0	02/12/2019
1.1	15/03/2021
<u>2.0</u>	<u>20/05/2022</u>





LME Benchmark Changes and Cessation Procedure

1 Overview of the Procedure

- 1.1 The London Metal Exchange Limited (the “LME”) is the Administrator of a number of Benchmarks. More information about the LME’s Benchmarks can be found on the LME’s website.
- 1.2 This Procedure sets out the steps that the LME will take in its capacity as Administrator pursuant to article 28(1) of the BMR, in relation to any proposal to: (1) make a material change to; or (2) cease to provide, a Benchmark (other than the LPP Prices).
- 1.3 The Pricing & Valuations Committee has overall responsibility for this Procedure, and shall be responsible for its periodic review and, where required, update of it.

2 Defined Terms

- 2.1 Any capitalised words not defined in this Procedure shall have the meaning given to them in the **Benchmark Administration – Definitions** document (“**Definitions**”) available on the LME Website with the exception of the term “Benchmark”. For the purposes of this Procedure, the term “Benchmark” shall exclude the LPP Prices. Changes to, and cessations of, one or more of the LPP Prices shall be addressed in the LBMA Platinum and LBMA Palladium Prices Regulations (“**LPP Prices Regulations**”).

3 Changes to a Benchmark

- 3.1 The LME may, from time to time, seek to make changes to its Benchmark Methodologies. A proposal to make such a change may originate from a range of sources, including (on a non-exhaustive basis) as a result of the LME’s periodic review of its Benchmark Methodologies, in the light of feedback from Benchmark users on the operation of a Benchmark, or in light of industry or regulatory developments.
- 3.2 Examples of the circumstances in which the LME may consider making a change to a Benchmark Methodology include (on a non-exhaustive basis) the following:
 - (a) the LME no longer considers the methodology used to determine the Benchmark to accurately reflect the economic or market reality that the Benchmark is intended to measure;
 - (b) market feedback (whether formal or informal) suggests that the methodology is unreflective of the economic or market reality that the Benchmark is intended to measure, or may lead to inaccurate benchmark values being generated;
 - (c) additional, or different, pricing requirements are needed by LME Clear in connection with a Benchmark that is utilised in the CCP risk management or margining processes;
 - (d) the LME is no longer in receipt of third-party data which is needed to calculate the Benchmark;
 - (e) there is a change in the provider of clearing services to the LME; and
 - (f) a change is otherwise required or desirable in order to facilitate compliance with the LME’s regulatory obligations, or to reflect market structural changes made by the LME to the way in which the LME’s markets operate.
- 3.3 Subject to paragraphs 3.4, 5.3(b) and 6.1, where a proposed change is identified as being material, the LME will follow the steps set out in this Procedure. Where a change is considered



to be non-material, the LME may elect to follow the steps set out in this Procedure. The Pricing & Valuations Committee shall determine whether a proposed change is material or non-material.

- 3.4 Where a change is material, but to follow the steps set out in this Procedure would be inconsistent with the LME's regulatory obligations as the operator of a trading venue, the LME shall, in its sole discretion, elect not to follow this Procedure.
- 3.5 Whether a proposed change is material shall be a matter for the LME to determine in its sole discretion. In making this determination, the LME will have regard to a range of factors. The factors to be considered will depend on the specific proposal, and on the relevant circumstances but could include (on an illustrative, non-exhaustive basis) the extent of the use (in a BMR sense) of the relevant Benchmark and the relative maturities of the products referencing the Benchmark, and the anticipated operational and regulatory impact on users of the Benchmark were the proposed change to be made. In order to assess potential materiality, the LME may seek informal views from Benchmark users.

4 Cessation of a Benchmark

- 4.1 The LME may, from time to time, consider the cessation of a Benchmark on either a temporary or a permanent basis. This could occur, for example, where the LME has, or proposes to, suspend trading in and/or de-list a particular contract that is admitted to trading on the LME, and where trading activity in that contract provides the input data for, or otherwise utilises, the relevant Benchmark.
- 4.2 Where the LME proposes, or otherwise considers it necessary, to cease to provide a Benchmark, it will typically follow the steps set out in this Procedure other than where it is not practicable for the LME to do so. In particular, the LME shall not be obligated to follow this Procedure where to do so would conflict with its regulatory obligations as the operator of a trading venue (including, without limitation, where giving notice of cessation of a Benchmark would cause, or risks causing, a disorderly market).

5 Consultation Process

- 5.1 Subject to paragraphs 3.4 and 4.2 above, the LME will consult with Benchmark users in relation to a proposed change to a Benchmark Methodology, or a proposed cessation of a Benchmark, through a consultation notice sent to Members and users, and published on the LME Website.
- 5.2 The consultation notice shall, as a minimum, set out:
 - (a) the rationale for the proposed change or cessation, including, in the case of a material change, the LME's assessment of whether the representativeness of the Benchmark, and its appropriateness as a reference for financial instruments and contracts, would be put at risk if a proposed material change were not made;
 - (b) sufficient information to allow users of the relevant Benchmark(s) to assess the proposal, including, in the case of a material change, the key elements of the Benchmark Methodology that would, in the LME's view, be affected by the proposed material change; and
 - (c) details regarding the process by which users may provide feedback on the proposed changes, and the end date of the consultation.



- 5.3 The LME will typically allow a consultation period of four weeks, where practicable. In certain exceptional circumstances, including (on a non-exhaustive basis) where a compulsory change is required immediately to facilitate compliance with the LME's regulatory obligations, the LME may, in its discretion:
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