



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.

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.

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 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.

4.1.4 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, 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 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 calculation of the MASPs.

However, the 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 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 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
2.0	20/05/2022



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