

Fastmarkets Benchmark Administration Oy (FBA) Alumina Index, fob Australia, Benchmark Statement

Last updated: March 2021

1. General disclosures	
Benchmark name	Fastmarkets Alumina index, fob Australia, \$/tonne
Date of initial publication	11 th March 2021
Date of last update	11 th March 2021
ISIN (where available)	This Benchmark does not have an ISIN code at the time of publication of this Statement
Determination by contributions of input data	The Benchmark is determined using contributions of input data from a range of market participants within the alumina market, including producers, industrial consumers and traders. The methodology gives more weighting to actual deals and equal weight to the buy side and the sell side to form a single index.
Qualification of the benchmark	This benchmark is a commodity benchmark as per the definition set out in Article 3(1)(23) of Regulation (EU) 2016/1011. Pursuant to Article 19(1), it falls under the Annex II of the Regulation.
EU Climate Transition Benchmarks/Paris-aligned benchmarks/ESG objectives ((EU) 2019/2089)	Fastmarkets ¹ provides a wide number of commodity price assessments and indices. These do not include any EU Climate Transition Benchmark, EU Paris-aligned Benchmark or Benchmarks that pursue the EU ESG objectives. Accordingly, this benchmark does not pursue ESG objectives and is not an EU Climate Transition Benchmark or EU Paris-aligned benchmark.
2. Key terms relating to the benchmark or family of benchmarks	
General description of the market or economic reality	The Fastmarkets Alumina index, fob Australia, \$/tonne is a daily tonnage-weighted index price representing the tradeable spot level of smelter-grade alumina loaded in Australia. The minimum purity is 98.5% and the minimum tonnage for an input data to be included in the calculation is 5,000 tonnes. Contributors include producers and consumers, as well as traders – the main consumers in the past year have been in China. The market is estimated at around 30 million tonnes a year, with 50% of buyers sourcing in the spot market and 50% of buyers using long-term contracts – these contracts are mainly done on the average of three indices published by three different Price Reporting Agencies (PRA: Fastmarkets, CRU and Platts). Fastmarkets has been publishing this index since 2010.
Geographical boundaries of the market or economic reality	Fastmarkets' alumina index reflects the tradeable spot level of Australian material on a free-on-board (fob) Bunbury and Kwinana basis, with some other Pacific origins also accepted and normalised. The base specification of the fob Australia index has been developed in consultation with the market to

¹ See the 'About Fastmarkets' section at the end of the statement for information on Fastmarkets.

	<p>reflect the reality of the physical spot market in the Pacific. Although Australia-origin alumina is the most commonly traded material in the spot market, input data from other approved location can be used in the index calculation. At present, Fastmarkets also accepts trades from India, Vietnam and Indonesia given the increasing frequency of trades from these countries. Data relating to spot trades outside the fob Bunbury, Australia base specification is normalized using in-house developed models based on regression analysis of the collected data points.</p> <p>The normalization coefficients for the daily index are updated every month to reflect the changing relationship of smelter-grade alumina from differing origins.</p>
<p>Other relevant information relating to the market or economic reality</p>	<p>The Alumina Index is structured to balance the influence of both sides of the market. This reduces the potential risk of market distortions and bias in the data and ensures that all parts of the market have the same influence on the final index calculation.</p> <p>The published Index figure is the straight average of two sub-indices, each of which contains data from either the buy side or sell side of the market. Each sub-index is a tonnage-weighted calculation of normalized price data. Only the final index is published. The use of two sub-indices means that each part of the market has a maximum of 50% weighting in the final index. This removes the possibility of bias or any single data provider having an overbearing influence on the final Index.</p>
<p>3. Potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable</p>	
<p>Circumstances in which Fastmarkets would lack enough input data to determine the benchmark according to the methodology</p>	<p>The frequency of publication of the fob Australia alumina index - every weekday - was determined after considering the number of input data that Fastmarkets can reasonably expect to collect on a consistent basis over the selected period to support the price assessment process, ensuring that the index can be determined on each pricing day and is a reliable indicator for the physical market it relates to.</p> <p>The alumina index is set up so that actual transactions have the greatest effect on the final calculated price. But Fastmarkets aims to calculate each index based on a robust data set and will therefore, where necessary, look to utilise other input data including offers, bids and market level indications collected from market participants.</p> <p>Actual transactions carry the full tonnage weight as reflected by the reported volume while other input data are entered into the index calculation using to the lowest tonnage permissible (5,000 tonnes).</p> <p>Fastmarkets does not specify a minimum amount of transaction data, or a transaction data threshold, required for the publication of its index because liquidity can vary in the alumina market. In the instance</p>

	<p>that no confirmed transaction data is reported first hand (by either the buyer or seller) on a given day, Fastmarkets will carry over data relating to the last confirmed trade in the relevant sub-index.</p>
<p>Circumstances in which the degree of liquidity of the underlying market becomes insufficient to ensure the integrity and reliability of the benchmark determination</p>	<p>Having taken the above steps, and in the event that in a particular pricing session the dataset collected is not considered suitably robust (such as too few input data and insufficient liquidity) for the calculation of a particular index, Fastmarkets can implement up to 7 fall-back procedures until a suitable number of input data is reached to calculate the index:</p> <ol style="list-style-type: none"> 1. Carry over transaction data from other sub-indices in same calculation period. 2. Carry over non-transaction data from other sub-indices in same calculation period. 3. Carry over transaction data from the previous calculation in the appropriate sub-index. 4. Carry over transaction data from the previous calculation from any sub-index. 5. Carry over non-transaction data from the previous calculation in the appropriate sub-index. 6. Carry over non-transaction data from the previous calculation from any sub-index. 7. If no price data can be collected then the index price will be carried over. <p>The implementation of fall-back procedures does not affect the tonnage weighting of the original data point. In the unlikely situation that 50% or more of the pricing data collected on a day is provided by a single source, Fastmarkets will use the fallback procedures above to ensure there is not dependency on a significant proportion of data being provided by a single entity.</p>
<p>4. The controls and rules that govern the exercise of judgment or discretion in the calculation of the benchmark or family of benchmarks</p>	
<p>Description of the exercise of judgement or discretion in the calculation of a benchmark</p>	<p>Fastmarkets price reporters are required to adhere to Fastmarkets' Code of Conduct and published methodologies². They are trained to record every step of each pricing session within Fastmarkets' Markets Information Database (MInD), which enforces strict pricing procedures, peer review checks, security of data, consistency and accountability.</p> <p>Fastmarkets may use its expert judgment to exclude input data that is not fairly presented or is believed to be questionable, unreliable or an attempt to distort the price calculation. Fastmarkets may also use expert judgement when deciding to use fall-back procedures. The exercise of judgement requires senior editorial approval and a detailed justification that is published in the daily pricing rationale and/or market commentary.</p> <p>The Fastmarkets alumina index has been specifically constructed to automatically exclude outlier data. All data points that fall greater than 4% away from an initial calculated index are automatically excluded; the index is then recalculated.</p>

² See <https://www.fastmarkets.com/benchmark-admin> for more details.

	<p>Outliers will be investigated; suspected attempts to influence the index unfairly may result in the data submitter being warned or disqualified from further contributing to the pricing process.</p>
<p>Controls governing the exercise of judgement or discretion</p>	<p>In exercising expert judgment, Fastmarkets price reporters must consider the following guidelines:</p> <ul style="list-style-type: none"> • Is the information received credible? If questionable: have they seen signed contracts (preferable), or has it been confirmed on both sides of the deal? • If credible: were all the prices in a similar range? Were all the deals reported of a similar size? • Do the reported deals all have the same terms and specifications? • Did all the sources indicate the market was headed in the same direction? If not, why not? • It is not unusual for different sources to report slightly different numbers but it is important, as far as possible, to understand why they are different. • In the absence of trade, what are the prevailing bids/offers in the market? Did the source provide firm bids/offers or indicative numbers? • What are the positions of the contributors? • Are they confident about the freight or free-on-charge costs? • Has an adequate sample been obtained that correctly represents the market?
<p>Ex-post evaluation process</p>	<p>All indices are subject to peer review and are signed off by a senior member of Fastmarkets' editorial or index teams prior to publication. This peer-review process is in place to make sure that pricing procedures and methodologies are correctly and consistently applied and to ensure integrity and quality of the published prices. Full details of data inputs and calculations are stored in Fastmarkets' MInD database and may be accessed at any time for internal review and auditing purposes.</p> <p>Fastmarkets' compliance team performs ex-post ad-hoc internal audits to ensure adherence to the methodologies and the Compliance Manual and reports its findings to FBA and its oversight committee at least on a quarterly basis. Any suspicion of breach of the pricing procedures is investigated and a correction notice is promptly issued to market participants if and when necessary. Any complaint related to Fastmarkets' indices will be investigated</p> <p>Fastmarkets' benchmarks are also externally and independently audited once a year for their compliance with the International Organisation of Securities Commissions (IOSCO) Principles for Price Reporting Agencies.</p>

5. Review of the methodology and changes to, or cessation of the benchmark or family of benchmarks

<p>Methodology review</p>	<p>Since markets evolve continually, it may become necessary to make changes to a benchmark’s methodology or specifications. Fastmarkets carries out a formal review of its methodologies at least on an annual basis to ensure that they reliably meet industry needs and reflect the physical market under assessment.</p> <p>The process starts with an open consultation when editorial teams may propose changes to the methodology to reflect changed market conditions and invite market participants to share feedback or propose changes.</p> <p>At the end of the consultation, the editorial teams review any feedback received, decide on whether further consultation is needed or whether a change should be made.</p> <p>Any proposed change to the methodology requires approval by a senior member of Fastmarkets’ editorial team and by the Managing Director of FBA. Any material change to the methodology requires approval by the Board of Directors of FBA.</p> <p>The decision is announced via a pricing notice that clearly outlines the rationale for the change, the feedback received (unless stated as confidential) and the timeline for its implementation. Fastmarkets will provide ample notice to give stakeholders sufficient opportunity to analyse and comment on the impact of any proposed changes.</p>
<p>Changes to or cessation of a benchmark or family of benchmarks</p>	<p>It is possible that factors, including external factors beyond Fastmarkets’ control, could necessitate changes to, or in extremis the cessation of, a Fastmarkets benchmark or family of benchmarks. It is also possible that changes to or the cessation of a Fastmarkets benchmark or family of benchmarks may have an impact upon the financial instruments that reference them.</p> <p>Fastmarkets makes all reasonable efforts to maintain the highest standards of accuracy in its published benchmarks. Where errors are detected, these will be corrected as promptly as reasonably possible, with notification being provided to users and subscribers at the earliest opportunity via a pricing notice.</p> <p>When proposing to discontinue a benchmark, Fastmarkets must have thoroughly reviewed the following considerations:</p> <ul style="list-style-type: none"> • <u>Assessment process and methodology</u>: Is the price still assessable or has the assessment become obsolete? Has it used the right specifications? How robust is the assessment/index? • <u>Market fundamentals</u>: Is there insufficient spot activity in the market? Does the product lack features of commoditisation? (spot assessments may have been premature).

	<p>FBA expects that in practice, a requirement to fully discontinue a benchmark is unlikely and a need to update the methodology is more likely.</p> <p>However, if Fastmarkets decided to go ahead with a proposal to terminate a benchmark, it would follow the same procedure set out for a proposal for a material change to the methodology. It would seek the views of the benchmark users via a consultation process and a notice that outlines the rationale for a discontinuation and presents a proposed timetable that would give users sufficient warning should the change go ahead.</p>
6. Commodity benchmarks	
Qualification as a commodity benchmark	Fastmarkets benchmarks are commodity benchmarks
Title II or Annex II regime	Fastmarkets benchmarks meet the conditions specified in Article 19 of the EU Benchmarks Regulation to be subject to the requirements of Annex II for commodity benchmarks.
Criteria that defines the relevant underlying physical commodity	The Fastmarkets Alumina index, fob Australia, represents the spot value of physically traded smelter-grade alumina loaded in Australia.
Publication of information relating to commodity benchmark	Fastmarkets benchmark information and related calculations and assessment processes are published on Fastmarkets' relevant websites and platforms in the form of pricing rationales and market commentaries and the related methodologies are publicly available on the FBA webpage.

Updates

This Benchmark Statement is published in accordance with Article 27 of the EU Benchmarks Regulation (Regulation (EU) 2016/1011). FBA will review it at least every two years and update it at any point if and when the information contained in the statement ceases to be correct or sufficiently precise, and including in any event in the following cases:

- (a) whenever there is a change in the type of the benchmark;
- (b) whenever there is a material change in the methodology used for determining the benchmark.

About Fastmarkets

Fastmarkets is a leading commodity price reporting agency (PRA) covering the metals, mining, minerals, forest products and agriculture industries. Its products and brands include Fastmarkets MB, AMM, RISI, FOEX, Random Lengths, AgriCensus and The Jacobsen. For more than 100 years it has provided assessments and indices of commodity prices as well as news, research and commentary on the underlying markets, to enable trading in the markets it operates.

Its mission is to meet the market's data requirements honestly and independently, acting with integrity and care to ensure that the trust and confidence placed in the reliability of its pricing methodologies is maintained. It does not have a vested interest in the markets on which it reports.

Contact us

For more information, including methodology please visit <https://www.fastmarkets.com/benchmark-admin> or contact us at info@fastmarketsbenchmarkadmin.com.