

Methodology and price specifications – May 2021



Mission statement

Fastmarkets is a leading commodity price reporting agency (PRA) covering the metals, mining, minerals and forest products industries. Our products include Fastmarkets MB, Fastmarkets AMM, Fastmarkets IM, Fastmarkets RISI, Fastmarkets FOEX and Random Lengths. For more than 100 years we have been providing commodities price reporting services for use by market participants in their day-to-day commercial activities. These services include assessments and indices of commodity prices as well as news, research and commentary on the underlying markets.

Our 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 our pricing methodologies is maintained. We do not have a vested interest in the markets on which we report.

Introduction

Fastmarkets MB is the leading global provider of pricing intelligence for the non-ferrous metal, steel, steelmaking raw materials, industrial minerals, ferrous and non-ferrous scrap markets, producing price assessments since 1913.

Fastmarkets MB reporters are required to abide by a code of conduct and clear pricing procedures during their market reporting and pricing activities. Fastmarkets is completely independent and has no vested commercial interest in any of the markets it prices.

We are the world's largest dedicated metals price reporting team. We have offices in London, New York, Pittsburgh, Shanghai, Hong Kong, Sao Paulo, Melbourne, Singapore, Mumbai, Dnepr, Istanbul and five other US locations.

The aim of this document is to provide a clear overview of Fastmarkets MB's fob China HRC and fob China Rebar indices methodology and specifications for the prices it assesses.

If you have any questions, please contact Fastmarkets editorial director Alex Harrison at aharrison@fastmarkets.com.



Price discovery and methodology

Methodology rationale

Fastmarkets MB's rationale for adopting the pricediscovery process described in this methodology document is to produce a consistent and representative indicator of market value to meet the requirements of the Chinese HRC and rebar markets for a transparent pricing mechanism.

The primary role of these indices is to provide market participants with a fair and robust representation of physical spot market prices. They have been designed to meet the requirements of the financial and the physical markets.

The intention in both indices is are be reflective of the prices seen during the data collection window; and to be a reliable indicator of the value of the fob China HRC and fob China rebar markets

The Chinese HRC and rebar markets are constantly developing. Fastmarkets MB reviews its methodology and specifications, and engages in discussions with market participants on a regular basis, to ensure they remain as representative of the market as possible.

Data collection and quality

Fastmarkets uses multiple channels to collect data across our offices in London, Shanghai, Singapore and Sao Paulo. These include phone calls, email and digital messenger services. The deadline for data submission is 4pm Shanghai time daily. Data received after this time will not be included in the calculation of the indices on that day.

The data collection window runs for the 24 hours prior to the 4pm data submission deadline. Only price data submitted and communicated to Fastmarkets within the 24-hour window will be included in the calculation of the indices. The indices are reflective of the price levels seen during this window.

Fastmarkets adopted this data collection window after considering the number of data points it could reasonably expect to collect on a consistent basis to support the index calculation process.

All the reference units, such as currencies and volumes units used in the index, are in line with recognized HRC and rebar market conventions and the reference units used in these markets.

The index specifications have a minimum acceptable volume size. All data supplied for the fob China HRC and rebar indices is kept strictly confidential. Fastmarkets' index team may sign Data Submitter Agreements (DSAs) with any data provider upon request.

Index calculation

The Fastmarkets fob China HRC and fob China Rebar indices are tonnage-weighted calculations, where actual transactions carry full weight as reflected by the reported volume, while offers, bids and market participants own estimate of the market are weighted at the specified minimum tonnage for the index. Fastmarkets aims to collect full details of each transaction including grade, commercial terms and any other details relevant to value and pricing.

Market balance

The Fastmarkets fob China HRC and fob China Rebar Index methodology is designed to provide market participants with a fair and robust reflection of the physical fob China HRC and rebar spot price level. The methodology incorporates structures and mechanisms to ensure a balanced and consistent calculation, which is able to resist possible undue influences.

The Fastmarkets fob China HRC and fob China Rebar indices are 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. The published index figure is the straight average of two sub-indices, each of which contain 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 50% weighting, which removes the possibility of bias or any single data provider having an overbearing influence on the final index.

Normalization

Fastmarkets will normalize back to the base specification any material that differs from that base specification but that falls with the target grade range. In addition, trades will be normalized for freight based on port of discharge. Trades will be adjusted for delivery in regional ports other than the base specification port before normalization for grade (if required). The freight normalization will be based on the relevant freight route, with data supplied by a leading global freight broker.



Payment terms are based on typical commercial practice in the fob China HRC and rebar spot markets. Transactions that are conducted on different payment or credit terms can be normalized, taking into account discounts, interest rates and standard commercial terms.

Criteria for discarding pricing data and the removal of outlier data

Fastmarkets uses its expert judgment to exclude, prior to inclusion in the model, unrepresentative numbers and discard prices that it believes may otherwise be questionable and unreliable.

In addition, the Fastmarkets fob China HRC and fob China Rebar indices have been specifically constructed to automatically exclude outlier data. All data points that fall more than than 4% away an initial calculation of the index are automatically excluded; the index is then recalculated. Outliers will be investigated; suspected attempts to unfairly influence the index may result in the data provider being warned or excluded.

Fastmarkets reserves the right to see contracts and signed paperwork before inclusion of the data in the calculation. If this is refused, the data supplied may be excluded from the calculation process. Fastmarkets reserves the right to exclude data that is not fairly presented or is believed to be an effort to distort the index.

Index calculation in periods of low data liquidity

The Fastmarkets fob China HRC and fob China Rebar indices are calculated based on price data collected from the market. The indices are set up so that actual transactions have the greatest effect on the final calculated price.

Fastmarkets aims to calculate each index based on a robust data set and as will therefore, where necessary, look to utilize price data including estimates, offers and bids collected from the market. Data points that do not represent actual transactions will be entered into the index like transaction data, but will be weighted according to the lowest tonnage permissible for the index.

Fastmarkets does not specify a minimum amount of transaction data, or a transaction data threshold, required for the publication of its index given that liquidity varies across the steel markets. In the event that in a particular pricing session the dataset collected is not considered suitably robust (such as there being too few data points) for the calculation of an index, Fastmarkets will implement the following fallback procedures (1-7) until a suitable number of data points is reached to calculate the index:

- Carry over transaction data from other sub-indices in same calculation period.
- 2. Carry over non-transaction data from other subindices 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.

In the unlikely situation that more than half of the pricing data collected on a day is provided by a single source, Fastmarkets will use the fall-back procedures 3-7 (see above) to ensure there is not dependency on a significant proportion of data being provided by a single entity.

Publication

The Fastmarkets MB fob China HRC and Rebar Indices are published daily at 4.30pm Shanghai time. The Indices are not published on Chinese public holidays.*

Please refer to the **pricing holiday schedule** for this year's public holidays.

Corrections and delays

If the index is published incorrectly, it will be rectified and republished as soon as possible. A correction notice will be sent to all subscribers. Fastmarkets employs several procedures and measures to avoid delays in the publication of its Index. In the event of a delay, however, Fastmarkets will inform subscribers as soon as possible. In the event of late publication, only data that has been received within the correct standard timeframe will be included in the calculations. The index will not be amended due to the emergence of new data or market activity after the initial publication. Retrospective changes to the published values will only be made in cases of administrative or calculation error.



Methodology and price specifications review process

Fastmarkets aims to continually develop and periodically revise its methodology in consultation with industry participants, with the objective of adopting product specifications, trading terms and conditions that reflect and are representative of typical working practices in the steel industry.

Any change to the methodology and/or price specifications are implemented following a consultation process that starts with Fastmarkets posting on its website an advance pricing notice providing clear details and a timeframe for the change proposed. The objective of the consultation process is to give market participants sufficient time and opportunity to provide feedback and views about the change proposed.

For more details on the formal periodic review of the methodology and details of the consultation process to propose changes to the methodology, refer to Fastmarkets' Internal and External Review Process and Fastmarkets' Change to the Methodology Consultation Process documents available on Fastmarkets' website.

Procedure to ensure consistency in the price discovery process

Fastmarkets aims to maintain the highest standards in the provision of prices to those involved in the global metals industry. All Fastmarkets pricing employees are required to adhere to Fastmarkets' Code of Conduct and Pricing Guidelines. Prior to publication, all indices are subject to peer review and are signed off by a senior member of Fastmarkets' editorial or index teams. 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' electronic database and may be accessed at any time for internal review and auditing purposes.

Index-related queries and complaints

Fastmarkets encourages engagement with the market on its pricing principles and methodology. The company promotes understanding of its calculation procedures and is committed to responding to requests for further information and clarification on a timely basis. There

China HRC & Rebar Indices

are multiple channels for interaction with the index department including email, telephone and instant messenger services.

If a subscriber has an issue with the published prices, then they may contact the index team. In the event that the response is not satisfactory the issue may be escalated to the internal compliance department. For more details refer to Fastmarkets' Complaint Handling Policy available on Fastmarkets' website.

Fastmarkets takes all queries and complaints seriously and will seek to provide an explanation of the prices wherever possible. It is important to note, however, that calculation models and input data remain confidential and cannot be provided to third parties.



fob China HRC index

MB-STE-0144 Steel hot-rolled coil index export,

fob main port China, \$/tonne

Quality: Q235B/SS400, width 1,250-1,800mm,

thickness 3-14mm

Quantity: Min 1,000 tonnes

Location: fob Tianjin, China. Other ports

normalized

Timing: 4-6 weeks
Unit: USD/tonne

Payment terms:
Publication:

Notes:

Letter of credit on sight
Daily, 4.30pm Shanghai time
Prices include 13% VAT. China
canceled the export rebate of 13%

for HRC containing at least 0.0008% boron since May 1, 2021. Data history as an assessment from February 2006 and as an index from October

2017

fob China rebar index

MB-STE-0147 Steel reinforcing bar (rebar) index

export, fob China main port,

\$/tonne

Quality: BS500B, chromium added, other

grades normalized, diameter 12-

32mm

Quantity: 100-5,000 tonnes

Location: fob China main port. Other ports

normalized

Timing: 4-5 weeks
Unit: USD/tonne

Payment terms: Letter of credit on sight

Publication: Weekly, Tuesday, 5-6pm Shanghai

time

Notes: Data history as an assessment from

July 2007 and as an index from

October 2017

Fastmarkets MB

China HRC & Rebar Indices

Contacts

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Your investment actions should be solely based upon your own decisions and research and appropriate independent advice should be obtained from a suitably qualified independent adviser before any such decision is made.