PRICE INDICES METHODOLOGY

metalshub
The future of metals trading

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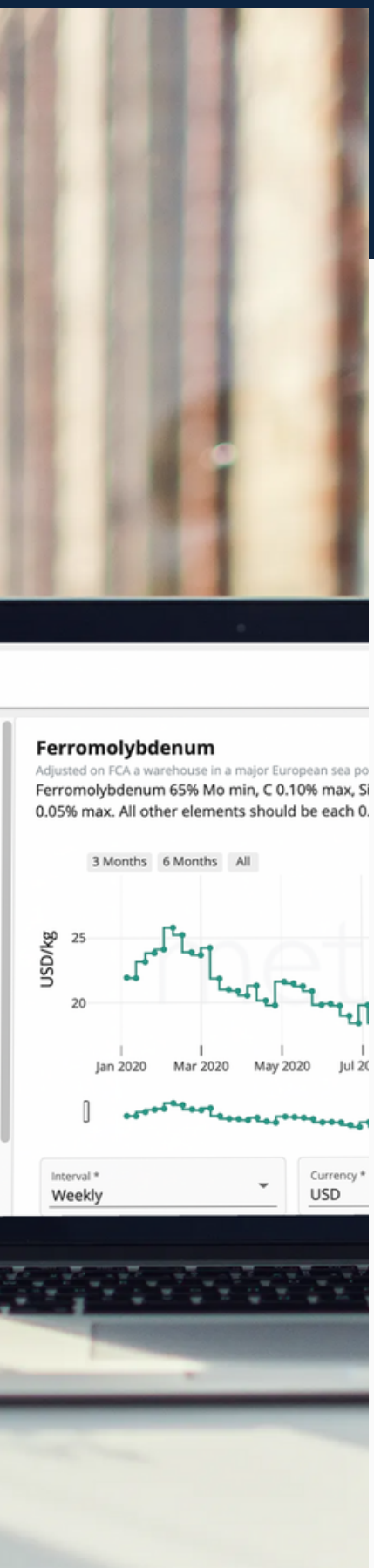

I. INTRODUCTION

Metalshub is offering a new service supporting the digitalisation of the ferroalloys and metals industry. Metalshub will provide reliable, up-to-date price indices for metals and ferroalloys to market participants as well as market observers.

The Metalshub Indices will be solely based on real transactions, bids and offers from the digital Metalshub platform which is a fundamental shift in price reporting. The information is collected automatically without any journalistic work, e.g. telephone calls to market participants. This methodology minimises the risk of price manipulation and ensures a more robust picture of real market prices.

The raw data generated on the platform include all parameters of the transaction/ negotiation, including the quantity, full chemical specification, payment terms, packaging and transportation cost. This enables Metalshub to normalise each data point correctly and to exclude data points, which do not meet the specifications for each price index.

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Managing Directors:
Dr. Frank Jackel
Dr. Sebastian Kreft

The process of evaluation and selection of data is based on an algorithm. Consequently, the risk of error caused by human interaction is minimised.

The confidentiality of Metalshub users price data is of utmost importance to Metalshub. Metalshub will never share individual data points and even employees of Metalshub only have restricted access to raw data. It will never be possible to trace back price indices to individual transactions or negotiations.

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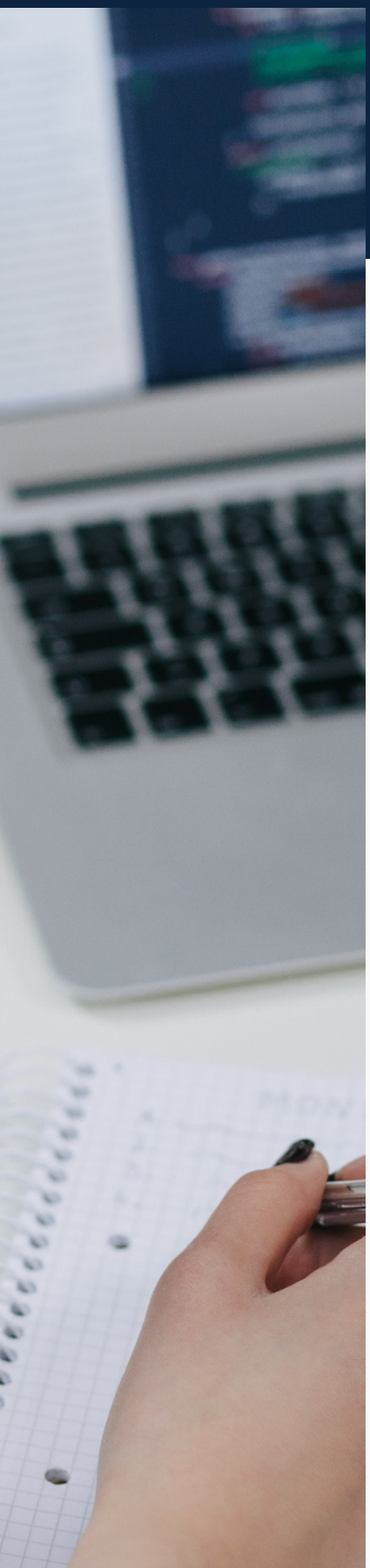


II. DATA EVALUATION AND SELECTION PROCESS

Price data points originate from negotiations on listings. A listing (Request for Quotation) can have several parties submitting a negotiation (quotation) on a listing. As the negotiating parties on Metalshub can update their quotations only the latest proposal is part of the evaluation process (i.e. the last offer by a seller on a "buy-listing" and the last bid by a buyer on a "sell-listing").

The process of price data collection, evaluation and selection for the Metalshub Indices is fully automated.

1. Every Friday, the Metalshub algorithm analyses the data from the past week and determines the index price for the week by following a series of predefined steps.

2. The data collected from trading activities on Metalshub include quantity, chemical specification, dimensions, packaging, storage and delivery locations, payment terms and price.

3. From all activities on Metalshub for the respective product the Metalshub algorithm excludes data points which do not meet the index specifications stated below (for example, FeSi 65% Si, 3-10 mm).

4. The remaining price points have to fulfil the following requirements to find their way into the index:

- The data point may not be a trader to trader transaction (anonymous termsheet mode)
- A confirmed negotiation (transaction) will be considered (as long as point 3 is fulfilled).
- For listings without a confirmed transaction the two best negotiations will be considered (i.e. the two lowest offers on a buy listing, the two highest bids on a sell listing)

5. Metalshub guarantees that for the weekly price index at least 5 datapoints from independent companies for every particular product were considered. In case of a smaller number of datapoints or their absence during the reporting week, Metalshub continues the price trend of the previous week and makes a corresponding note on the Metalshub platform near the product's price index chart.

6. In order to have comparable data forming the index the price points are first normalised to cash payment terms and FCA a warehouse in a major European sea port.

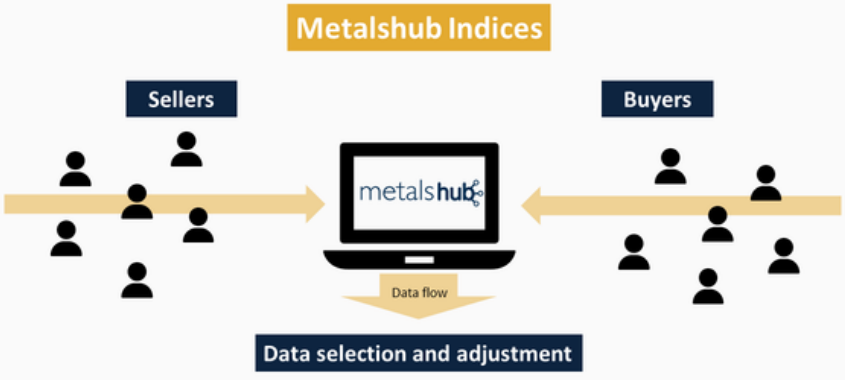
- In order to normalise the price data relative to the payment terms, the interest rate of the respective central bank is used. For Europe, it is the base rate of the European central bank +3%.
- Actual transport rates are used to normalise price data in relation to logistics: E.g. from DDP/DAP based prices, shipping costs to the nearest major European seaport are deducted.

7. The considered and normalised data points will be weighted by

- Volume (transactions with volume exceeding 100 mt are considered as 100 mt)
- Transaction (100%) and negotiation (10%)

Thus, the difference in prices for different batch volumes is taken into account.

8. The calculated price indices are immediately and automatically published on the Metalshub platform.



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III. PRICE INDEX SPECIFICATIONS

As of today, Metalshub publishes weekly price indices for the following products:

Ferromolybdenum

Specification: Ferromolybdenum 65% Mo min, C 0.10% max, Si 1.50% max, P 0.05% max, S 0.10% max, Cu 0.50% max, Pb 0.05% max. All other elements should be each 0.10% max, with the exception of Fe

Quantity: min. 1 mt, Size: 10-50 mm (min. 90% within size)

Incoterms: FCA a warehouse in a major European sea port, duty paid

Currency: EUR, USD

Unit: per kg Mo

Payment terms: All payment terms adjusted for Pre-payment

Ferrosilicon

Specification: Ferrosilicon 75% Si min, Al 1.50% max

Quantity: min. 10 mt, lump > 10 mm (min. 90% within size)

Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per mt FeSi, 75% basis scala pro rata
Payment terms: All payment terms adjusted for Pre-payment

Low Carbon Ferrochrome

Specification: Low Carbon Ferro-Chrome 65% Cr min, C 0.15% max, Si 1.5% max,
P 0.03% max, S 0.03% max
Quantity: min. 1 mt, lump > 10 mm (min. 90% within size)

Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD

Manganese Metal Flakes

Specification: Manganese Metal 99.7% Mn min, C 0.04% max,
P 0.005% max, S 0.05% max, Fe+Se+Si 0.205% max
Quantity: min. 1 mt, Flakes

Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per mt
Payment terms: All payment terms adjusted for Pre-payment

High Carbon Ferromanganese

Specification: High Carbon Ferromanganese 75% Mn min, C 6-8.5%, P 0.25% max
Quantity: min. 10 mt, lump > 10 mm (min. 90% within size)

Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per mt FeMn, 75% basis scala pro rata
Payment terms: All payment terms adjusted for Pre-payment

Ferrovanadium

Specification: Ferrovanadium 75% V min, C 0.30% max, Si 1.50% max, Al 1.50% max.
Quantity: min. 1 mt, Size: 10-50 mm (min. 90% within size)

Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per kg V
Payment terms: All payment terms adjusted for Pre-payment

High Carbon Ferrochrome

Specification: High Carbon Ferro-Chrome 65% Cr min, C 9% max, Si 1.5% max
Quantity: min. 1 mt, lump > 10 mm (min. 90% within size)

Incoterms*:* FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per kg Cr (EUR), per lb Cr (USD)
Payment terms: All payment terms adjusted for Pre-payment

Silicomanganese

Specification: Silicomanganese 65% Mn min, 16% Si min, C 2%, P 0.25% max
Quantity: min. 10 mt, lump > 10 mm (min. 90% within size)

Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per mt SiMn, 65% basis scala pro rata
Payment terms: All payment terms adjusted for Pre-payment

Nickel Briquettes

Specification: Nickel Briquettes, 99.5% Ni min
Quantity: min. 1 mt

Description: Average LME CSP plus Metalshub Nickel Briquettes Premium
Currency: USD
Unit: per mt Ni

Nickel Briquettes Premium

Specification: Nickel Briquettes, 99.5% Ni min
Quantity: min. 1 mt

Description: Average weighted premium (or discount) over the exchange price
Currency: USD
Unit: per mt Ni

Ferrotitanium

Specification: Ferrotitanium, 65% Ti min, Al 5.00% max
Quantity: min. 1 mt
Incoterms: FCA a warehouse in a major European seaport, duty paid
Currency: EUR, USD
Unit: per kg Ti
Payment terms: All payment terms adjusted for Pre-payment

Molybdenum Oxide Briquettes

Specification: Molybdenum oxide briquettes 57% Mo min, C 0.10% max, S 0.10% max, Cu 0.50% max, Pb 0.05% max
Quantity: min. 1 mt, Size: 10-50 mm (min. 90% within size)
Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per kg Mo / per lb Mo
Payment terms: All payment terms adjusted for Pre-payment

Molybdenum Oxide Powder

Specification: Molybdenum oxide powder 57% Mo min, C 0.10% max, S 0.10% max, Cu 0.50% max, Pb 0.05% max
Quantity: min. 1 mt
Incoterms: FCA a warehouse in a major European seaport, duty paid
Currency: EUR, USD
Unit: per kg Mo / per lb Mo
Payment terms: All payment terms adjusted for Pre-payment

Ferrotungsten

Specification: Ferrotungsten 75% W min, C 1% max, S 0.08% max, P 0.50% max
Quantity: min. 1 mt, Size: 10-50 mm (min. 90% within size)
Incoterms: FCA a warehouse in a major European sea port, duty paid
Currency: EUR, USD
Unit: per kg W
Payment terms: All payment terms adjusted for Pre-payment

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