

# Base metals forecasts



Methodology and price  
specifications – August 2022

## Mission statement

Fastmarkets Metals and Mining 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 with Fastmarkets MB and Fastmarkets AMM since 1913 and 1882 respectively. The research arm of Fastmarkets Metals and Mining provides forecasts and analysis based on price assessments from Fastmarkets MB and Fastmarkets AMM. Established in 1991, we have provided regular, insightful analysis and forecasts to businesses around the world to help them make informed and strategic decisions and recommendations. 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 methodologies is maintained. We do not have a vested interest in the markets on which we report. Within the research function of Fastmarkets, we stress our ability to operate independently of the rest of the Group, and the existence of formal rules of confidentiality that exist between the pricing and news providers within the Group and the research and consulting functions.

## Introduction

Fastmarkets' reporters and analysts 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 price reporting teams for both metals and forest products. We have offices in London, New York, Boston, San Francisco, Eugene, Charlottesville, Atlanta, Pittsburgh, Beijing, Shanghai, Hong Kong, Singapore, Melbourne, Sao Paolo, Mumbai, Brussels, Helsinki, Dnipro and Istanbul. The aim of this document is to provide a clear overview of Fastmarkets' forecasting methodology and specifications for the prices forecast. If you have any questions, please contact Fastmarkets Executive VP Analytics Dan Klein at [dan.klein@fastmarkets.com](mailto:dan.klein@fastmarkets.com) for metals, Fastmarkets Metals and Mining research leader, Kim Leppold, at [kim.leppold@fastmarkets.com](mailto:kim.leppold@fastmarkets.com) about our forecast products.

## Fastmarkets' forecasting methodology

### Base metals

Fastmarkets provides a dynamic, bottom-up and unbiased approach to short-term (<2-year) monthly and quarterly price forecasting.

The methodological model takes a three-way approach to account for:

1. supply-demand fundamentals
2. underlying costs & implied margins
3. market sentiment

This framework enables the analysts to determine the key but changing drivers of price movements in the past and future.

To source the information to prepare our price forecasts, forecasters conduct both extensive desk-based research as well as primary research; the latter being more heavily weighted toward our near-term (<3 month) view.

Fastmarkets' forecasting methodology includes drawing on expertise from our in-house analysts with forecasting experience of up to 20-25 years who rely heavily on the intelligence gathering and data analytics insight of our extensive editorial teams.

We supplement this valuable network with our proprietary databases, which focus on the underlying physical market movements that drive prices and the archive of spreads between price series that instruct and contextualize our understanding of margins.

These are supported by exhaustive third-party data and economic forecasting services, which help us to build the fundamental drivers of the future.

Our analysts access extensive existing relationships across the industry through face time and written interviews, and take into account the opinions provided to our price reporters and data analytics team. This cross-referencing approach helps us to value the intelligence, generate insight and help in our mission to illuminate markets.

### Modeling Fastmarkets' forecasts

Generating our forecasts is an involved process that combines macroeconomic theory, market insight,

statistical modeling and machine learning. It is this combination of expert knowledge and cutting-edge data modeling which generates our trusted forecasts. They also allow deeper insight into the fundamental workings of a market and elicit data patterns that give insight and relative weighting of key market factors that drive price direction, such as the Chinese Purchasing Manager's Index. These insights and their statistical robustness allow our expert analysts to improve forecast accuracy and reliability and to inform their commentary along with traditional macro-economic and sentiment analysis.

Our data collection and process:

- Include price benchmarks - which refer to prices used in industrial contracts - and prices that are viewed as trendsetters for a particular region or a product group
- Bespoke approach to each price forecast
- Draw on a comprehensive set of macro-economic data
- Machine learning approach to find the best model candidate and predictions with rigorous checks on model approach and output
- Models undergo periodical review
- Rigorous approval process

### Base metals price, premium and index forecasts

Crucial to the results of our base metals price forecasts is a detailed analysis of distinct product-specific factors:

- Fastmarkets' internal forecasts for Base metals production and consumption in individual countries or regions
- Estimated inventory levels in the supply chain
- Net trade flows and trade policy changes
- Projected performance of major base metals consuming sectors, such as construction, automotive, mechanical engineering, metal goods, domestic appliances and the energy sectors, taking into account the share of a particular sector
- Market sentiment, including including technical analysis and analysis of news/data releases.
- Analysis of speculative positioning on metal exchanges and changes in speculative positioning.
- Seasonal trends and patterns.
- Correlation with other financial assets, including the other components of the base metals complex and the broader commodities asset class, currency markets and equity markets.

## Forecast list

**MB-AL-0004 Aluminium P1020A premium, in-whs dp Rotterdam, \$/tonne**

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: In-warehouse Rotterdam duty-paid, premium on top of LME cash prices

Unit: USD/tonne

Timing: Within 4 weeks

Payment terms: Cash against documents (7 days after bill of lading date); other terms normalized

Publication: Twice weekly. Tuesday and Friday 4pm London

**MB-AL-0020 Aluminium P1020A premium, ddp Midwest US, US cents/lb**

Quality: London Metal Exchange specification P1020A or 99.7% minimum Al purity (silicon 0.10% max, iron 0.20% max, zinc 0.03%, gallium 0.04%, vanadium 0.03%)

Location: Delivered consumer works Midwest

Unit: US cents per pound

Quantity: 100 tonnes Delivery: Within four weeks Form: Ingot, T-bar, Sow

Payment terms: 30 days, other payment terms normalized

Publication: Twice a week, every Tuesday and Friday between 3pm and 4pm London time

**MB-AL-0343 Aluminium P1020A (MJP) spot premium, cif Japan, \$/tonne**

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max) in line with LME specifications. Ingot, T-bar, sow

Quantity: Min 100 tonnes

Location: cif in main Japanese ports at Yokohama, Nagoya and Osaka, premium on top of LME cash prices

Timing: Within 6 weeks

Unit: USD/tonne

Payment terms: Cash against documents (2 days after Bill of lading date)

Publication: Twice weekly. Tuesday and Friday by 4pm London time

Notes: Excluding metal from LME warehouses and metal subject to international sanctions. Assessed by Fastmarkets' Singapore office

**MB-AL-0345 Aluminium P1020A premium, cif Shanghai, \$/tonne**

Quality: P1020A or 99.7 % Minimum Al purity (Si 0.10% max, Fe 0.20% max). Ingot

Quantity: Min 100 tonnes

Location: cif Shanghai, premium on top of LME cash prices

Unit: USD/tonne

Timing: Within 4 weeks

Payment terms: Letter of Credit or Telegraphic Transfer, other payment terms normalized

Publication: Monthly, last Tuesday of the month 3-4pm London time

**MB-ALU-0002 Alumina index, fob Australia, \$/tonne**

Quality: Smelter-grade alumina, minimum purity of 98.5% Al<sub>2</sub>O<sub>3</sub>

Quantity: 5,000 tonnes

Location: fob Bunbury/Kwinana, Australia (other Pacific origins normalized)

Timing: Within 2 months

Unit: US\$ per dry metric tonne (dmt)

Payment Terms: 30 days after loading

Publication: Daily at 4pm London time

Notes: Bulk carrier. Data history from Augusts 2010. Full methodology available here:

<b>MB-CU-0310</b>	<b>Copper grade 1 cathode premium, ddp Midwest US, \$/tonne</b>	<b>MB-CU-0369</b>	<b>Copper grade A cathode premium, cif Rotterdam, \$/tonne</b>
Quality:	Delivered premium over cost of Grade 1 Electrolytic Copper Cathode as adopted by the American Society for Testing and Materials (B115-00)	Quality:	Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu-CATH-1
Location:	Delivered Midwest	Quantity:	Min 25 tonnes
Unit:	US cents per pound	Location:	cif delivery in Rotterdam, duty unpaid premium on top of LME cash prices
Quantity:	Min 20 tonnes	Timing:	Within 4 weeks
Delivery:	Within 4 weeks	Unit:	USD/tonne
Form:	Cathode	Payment terms:	Cash, other payment terms normalized
Payment terms:	30-day payment, other payments terms normalized	Publication:	Once every two weeks. Tuesday 3-4pm London time
Publication:	Weekly, every Tuesday between 3pm and 4pm London time		
<b>MB-CU-0287</b>	<b>Copper concentrates TC index, cif Asia Pacific, \$/dmtu</b>	<b>MB-CU-0403</b>	<b>Copper grade A cathode premium, cif Shanghai, \$/tonne</b>
Quality:	Concentrate. Copper content 26%; Au 1.1g/dmt; Ag 75g/dmt; S 32%; Fe 28%; Pb 0.07%; Zn 1%; As 0.17%; Sb 0.018%; Hg 2.5ppm; Bi 145ppm	Quality:	Grade A cathode 99.9935% min copper conforming to LME specifications BS EN 1978:1998 – Cu CATH-1
Quantity:	Min 5,000 tonnes	Quantity:	Min 25 tonnes
Location:	cif Asia Pacific	Location:	CIF Shanghai port, duty-unpaid premium on top of LME cash prices
Unit:	USD/tonne	Timing:	Within 6 weeks
Timing:	Within 13 weeks	Unit:	USD/tonne
Payment terms:	Letter of credit, quotation period M+3	Payment terms:	Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized
Publication:	Weekly. Friday at 4pm London time	Publication:	Daily. 3-4pm London time
Notes:	Full methodology available here.	Notes:	Full methodology available here:
<b>MB-CU-0288</b>	<b>Copper concentrates RC index, cif Asia Pacific, \$/dmtu</b>	<b>MB-PB-0103</b>	<b>Lead spot concentrate TC, low silver, cif China, \$/tonne</b>
Quality:	Concentrate. Copper content 26%; Au 1.1g/dmt; Ag 75g/dmt; S 32%; Fe 28%; Pb 0.07%; Zn 1%; As 0.17%; Sb 0.018%; Hg 2.5ppm; Bi 145ppm	Quality:	55-65% lead content concentrate, low silver below 1kg, arsenic below 0.7%, mercury below 0.05%
Quantity:	Min 5,000 tonnes	Quantity:	2,000 tonnes
Location:	cif Asia Pacific	Location:	Treatment Charge on cif basis delivery to Chinese ports
Unit:	US cents/lb	Timing:	Within 13 weeks
Timing:	Within 13 weeks	Unit:	USD/tonne
Payment terms:	Letter of credit, quotation period M+3	Payment terms:	Letter of Credit, quotation period M+3
Publication:	Weekly. Friday at 4pm London time	Publication:	Monthly. Last Friday of the month, 3-4pm London time
Notes:	Full methodology available here		

<b>MB-PB-0006</b> Quality: Delivered premium over cost of lead ingot of 99.97% purity conforming to BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009) Location: Delivered consumer works, Midwest Unit: US cents per pound Publication: Daily Notes: Calculated formula: London Metal Exchange official cash AM bid lead price plus AMM lead premium	<b>Lead 99.97% ingot premium, ddp Midwest US, US cents/lb</b>	<b>MB-NI-0002</b> Quality: Briquette. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade Quantity: 20 tonnes Location: In-warehouse Rotterdam, premium on top of LME cash prices Timing: Within one week Unit: USD/tonne Payment terms: Cash, other payment terms normalized Publication: Weekly. Tuesday 3-4pm London time	<b>Nickel briquette premium, in-whs Rotterdam, \$/tonne</b>
<b>MB-PB-0107</b> Quality: Lead ingot of 99.97-99.99% purity conforming to LME specification BS EN 12659:1999, GB/T 469/2005 or ASTM B29-03 (2009) Quantity: 25 tonnes Location: cif to ports of Vietnam (Ho Chi Minh/Haiphong), Thailand (Bangkok, Laem Chabang), Malaysia (Johor, Port Klang), Indonesia (Jakarta), duty-unpaid premium on top of LME cash prices Timing: Within 5 weeks Unit: USD/tonne Payment terms: Letter of credit, telegraphic transfer or cash against documents, other terms normalized Publication: Once every two weeks. Tuesday 3-4pm London time	<b>Lead 99.97% ingot premium, cif Southeast Asia, \$/tonne</b>	<b>MB-NI-0142</b> Type: Assessed range and single number Quality: Full plate. 99.80% min primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade Quantity: Min 10 tonnes (under consultation to increase to 60 tonnes) Location: cif delivery basis Shanghai port, premium on top of LME cash prices Timing: With 6 weeks Unit: USD/tonne Payment terms: Cash against document, Letter of credit, telegraphic transfer, and other terms normalized Publication: Weekly. Tuesday 3-4pm London time	<b>Nickel min 99.8% full plate premium, cif Shanghai, \$/tonne</b>
<b>MB-NI-0240</b> Quality: 4x4 cut cathode. 99.8% minimum primary nickel conforming to LME specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade specification: ASTM B39-79 (2013) or GB/T 6516-2010 - Ni9990 grade Quantity: Min 20 tonnes Location: Delivered consumer works US Timing: Within four weeks Unit: US cents per lb Payment terms: 30 days, other payment terms normalized Publication: Weekly. Tuesday 3-4pm London time	<b>Nickel 4x4 cathode premium, delivered Midwest US, US cents/lb</b>	<b>MB-SN-0002</b> Quality: Ingot. 99.9% tin purity conforming to LME specification: BS EN 610:1996 with 100-300 ppm lead content Quantity: Min 20 tonnes Location: In-warehouse Rotterdam, premium on top of LME cash prices Timing: Within 2 weeks Unit: USD/tonne Payment terms: Cash against conditional release, other payment terms normalized Publication: Once every two weeks. Tuesday 3-4pm London time	<b>Tin 99.9% ingot premium, in-whs Rotterdam, \$ per tonne</b>

**MB-SN-0011**      **Tin grade A min 99.85% ingot premium, ddp Midwest US, \$/ tonne**

Quality:            Delivered premium over cost of tin of 99.85% purity (min) conforming to BS EN 610:1996

Quantity:            Min 20 tonnes

Location:            ddp US Midwest

Timing:              Within 2 weeks

Unit:                  US dollars per tonne

Payment terms:    30-days, other terms normalized

Publication:        Once every two weeks. Tuesday 3-4pm London time

**MB-ZN-0001**      **Zinc SHG min 99.995% ingot premium, dp fca Rotterdam, \$/ tonne**

Quality:            Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470- 2008

Quantity:            Min 100 tonnes

Location:            Free-carrier basis delivery in Rotterdam, duty-paid premium on top of LME cash prices

Timing:              Within 4 weeks

Unit:                  USD/tonne

Payment terms:    Cash, other payment terms normalized

Publication:        Weekly. Tuesday 3-4pm London time

**MB-ZN-0005**      **Zinc SHG min 99.995% ingot premium, ddp Midwest US, US cents/lb**

Quality:            Min 99.995% special high grade zinc ingot, conforming to LME specifications and relevant BS EN standards

Quantity:            Min 25 tonnes

Location:            Delivered consumer works Midwest US

Timing:              Within 4 weeks

Unit:                  US cents per pound

Payment terms:    30 days, other payment terms normalized

Publication:        Weekly. Tuesday 3-4pm London time

**MB-ZN-0106**      **Zinc SHG min 99.995% ingot premium, cif Shanghai, \$/per tonne**

Quality:            Special High Grade zinc ingot of minimum 99.995% purity, conforming to LME specifications and relevant standards: BS EN 1179:2003, ISO 752:2004 - ZN-1 grade, ASTM B6-12 - LME grade or GB/T 470- 2008

Quantity:            Min 25 tonnes Location: cif Shanghai port, premium on top of LME cash prices

Timing:              Within 4 weeks

Unit:                  USD/tonne

Payment terms:    Letter of credit, telegraphic transfer or documents against payment, other payment terms normalized

Publication:        Once every two weeks. Tuesday 3-4pm London time

**MB-ZN-0110**      **Zinc spot concentrate TC, cif China, \$/per tonne**

Quality:            45-55% zinc content, low silver (0-170g/t), silica 3.5-4.5%, copper below 3% (high copper 4-5%), lead below 3.5% (total copper, lead, silica at max 6-7%), arsenic below 0.6%, cadmium below 0.33% and mercury below 0.06%

Quantity:            Min 2,000 tonnes

Location:            cif Chinese ports

Timing:              Within 13 weeks

Unit:                  USD/tonne

Payment terms:    Letter of Credit, quotation period M+3

Publication:        Second and last Friday of each month

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