

SMM Notice

Launch of SMM Copper Concentrate Index

Summary:

China's demand for copper concentrate continues to increase with the expansion of smelting capacity and currently 70% of the copper concentrate mines consumption relies on seaborne materials. The development of Chinese copper smelters and the copper industry depends on the volatility of the treatment and refining charges (TC/RCs). As the pricing of imported copper concentrate evolves, the indexing of copper concentrate TCs can effectively reduce transaction costs. Shanghai Metals Market (SMM), the largest nonferrous metals integrated service provider in China, will publish the SMM copper concentrate index to better engage trades in copper concentrate market.

The assessment methodology for SMM copper concentrate index is made available for public comments. For queries, please contact:

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1. Guidelines to SMM copper concentrate index methodology

Shanghai Metals Market (SMM) is an independent service provider that does not participate in trades. SMM is a market observer that engages buyers and sellers in the commodities market. The methodology is produced after consultation with market participants, and will be revised regularly based on product specifications and trading terms that are generally adopted in the market, with equal weightage given to transactions that meet the standards. SMM reserves the right to exclude any unreliable or unrepresentative price data during the survey process.

The SMM copper concentrate index reflects the purchasing prices from the Chinese smelters, or the most tradable prices of spot imported copper concentrate for the week. The document specifies the calculation model for SMM copper concentrate index as well as the collection and indexing processes of trade sample data in accordance with the International Organization of Securities Commissions (IOSCO) standards, in pursuit of fair and accurate presentation of transactions in China's spot copper concentrate market. It also creates an accurate, transparent and verifiable mechanism for the assessment of the index.

To reflect the actual trades in the spot market, SMM will update the methodology for SMM copper concentrate index and publish all the revisions on our website www.smm.cn. For queries or suggestions on the methodology, please contact the SMM copper concentrate index analysts (see contact details in the methodology document).

2. Significance of SMM copper concentrate index

SMM launches the weekly copper concentrate TCs index in a bid to improve the copper industrial chain, to provide a better understanding of demand and supply in the copper concentrate market, to reduce the transaction cost and to enhance the pricing power in the Chinese market.

The index, generated and published based on this methodology, is designed to provide indicative price for market participants in their spot copper concentrate transaction and long-term trade settlement. Subscribers of SMM copper concentrate index are able to access historical data on our website.

The price of imported copper concentrate is calculated by deducting TCs and RCs from the values of the payable metal. In international practice, the value of RC is fixed at 10% of the TC value.

Copper concentrate TCs reflect the profits in the production of copper cathode from concentrate, and they also serve as an important indicator for the supply and demand of copper concentrate. For instance, TCs will be lower if the copper concentrate market tightens up in a sellers' market.

The movement of copper concentrate TC/RC is essential to the development of copper smelters and the copper industry in China as domestic demand for seaborne feedstock increases with burgeoning copper smelting capacity. At present, over 70% of copper concentrate supply in China relies on imports.

3. Introduction of SMM copper concentrate index methodology

3.1 Copper concentrate specifications and standards

SMM specifies the content limits of elements in copper concentrate that are included in the calculation of SMM copper concentrate index, by taking reference from customs data and mainstream brands in the Chinese markets. The content of major elements must fall between the maximum and minimum limits.

The SMM copper concentrate index is produced through the normalisation of the collected data on spot copper concentrate trades, to accurately and reasonably reflect the trading conditions of the market. Copper concentrate spot trading benchmark data are based on historical data collected through market survey.

3.2 Currency and unit

TCs are shown in \$/mt, and RCs are in cents/lb.

3.3 Payment terms

A letter of credit (LC) at sight is widely used in the settlement of imported copper concentrate trades. SMM will adjust deferred payment or LC payment to exchange rate movements in the index assessment process.

SMM Copper Concentrate Index

Benchmark	Spot price of copper concentrate at Chinese smelters	Note:	Benchmark	Highest	Lowest
Unit	\$/mt (treatment charges), cents/lb (refining charges)		Cu%	25	38
Quantity	No less than 5,000 mt		Au(g/dmt)	1.1	30
Delivery time	Within 3 months		Ag(g/dmt)	75	400
Delivery terms	Letter of credit at sight		S(%)	32	40
Publishing time	Every working Friday		Fe(%)	28	35
			Pb(%)	0.1	4
			Zn(%)	1	5
			As(%)	0.2	0.5
			Sb(%)	0.02	0.2
			Hg(ppm)	2.5	10
			Bi (ppm)	150	2,000

3.4 Data collection

3.4.1 Data source

Actual transaction data from major market participants is an important source to the SMM copper concentrate index. Price contributors include miners, traders and smelters. In case that the volume of actual transaction data available falls below a threshold required due to an inactive market, SMM will supplement the dataset by collecting quotes or valuation provided by contributing companies.

3.4.2 Data utilisation

SMM decides whether to incorporate a specific deal in the database for calculation as per the transaction SMM copper concentrate index standards to ensure data integrity and accuracy. The standards specify the parameter information required in data provided by market participants, including the minimum trading volume, brand name, element content and other

information that can affect the spot price. Transaction data that meet the standards will be included in the calculation of the SMM copper concentrate index.

3.4.3 Data collection standards

SMM requires all contributing companies to sign a formal agreement in order to ensure the accuracy and timeliness of the data provided. The agreement also protects the anonymity of the trade information provided by the company. SMM will review on a regular basis, the activities and the data provided by the contributors, to ensure they provide reliable price data.

SMM reserves the right to exclude a contributor from participating in the market survey process if the company intends to mislead the price assessment by providing inaccurate price information.

3.5 Calculation

3.5.1 Normalisation

SMM normalises the collected copper concentrate spot trade data via an internal calculation model, as factors including brands, types of buyers and quotational period will affect trades. The SMM copper concentrate index is the weighted average calculated from the normalised data based on the trading volume.

Components such as copper concentrate brands, types of buyers and quotational period are considered in the normalisation of SMM copper concentrate spot trade data. If a price is a quote or valuation offered by data contributors, rather than from an actual transaction, the type of the price and the data contributor will be taken into account in the data normalisation.

3.5.2 Criteria to discard pricing data

The preliminary copper concentrate index is the weighted average calculated from data normalised, screened and collected by SMM. Data which is smaller or greater than 10% from the preliminary index will be excluded.

The filtered set of data will be used to calculate a weighted average to be the final SMM copper concentrate index. SMM will investigate the abnormal data to check for price manipulation.

3.6 Publication

The SMM copper concentrate index is published on Friday, or the last trading day of the week if Friday is a public holiday. Please refer to the official statement by the Chinese government published on the official website for the China holiday schedule.

Prior to publication, the assessed spot copper concentrate TCs must be reviewed and approved by a senior member of the index analyst team. In the review process, the reviewer must ensure the price methodology and the internal calculation model are correctly applied in the full process of assessing spot copper concentrate TCs to ensure the accuracy and integrity of the index published on SMM website. In addition, all data input and calculation details will be stored in SMM backend database for compliance purposes.

3.7 Adjustment to the index assessment methodology

Any amendments to the SMM copper concentrate index methodology will be subject to an internal review by SMM. All revisions and updates will be published on SMM website for public comments for at least 30 days, before the finalised version of the assessment methodology is published. SMM will inform subscribers of any changes in the methodology and when the new version will take effect.