LME Insight

SETTING THE GLOBAL STANDARD

How are LME reference prices used in physical metals contracts?

From the Product Development Team

Referring to a widely accepted reference price in physical contracts is a very common practice in commodity markets - especially in base metals. Contracts between producers and consumers typically reference a globally accepted price, such as those discovered on the London Metal Exchange (LME), but also negotiate relevant discounts and premiums basis the material that is being bought or sold. Conversely, steel markets have historically used a fixed price in their contracts, inclusive of all costs, fees, premiums and so on, or have directly accessed the spot market, leaving them exposed to fluctuations in market conditions. The practice of pricing material based on a reputable reference price, separate from premium costs, has evolved because of the advantages it presents for the companies – transparency, efficiency and optionality.

Key benefits of linking physical contracts to a reference price

In a global economy of fragmented and complex value chains it is increasingly difficult for producers and consumers to consistently "beat the market". By agreeing to trade at the market price, as reported by the LME or by a relevant price reporting agency (PRA), companies can benefit from a greater level of **transparency** that these price-discovery organisations and mechanisms offer. As a result, companies can better focus their efforts on negotiating the value of premiums or discounts between the underlying metal and their specific product. These premiums or discounts can be based on a number of factors including, among some of the most frequently cited: geographical location, grade of material, impurities and delivery terms.

By providing a robust and regulated trading venue for price discovery, the LME allows companies that refer to its prices the **efficiency** of knowing where the market is at any point in time. This removes the need for businesses to invest huge resources in gathering the information they would need to continuously and autonomously discover the market price for their metal. PRAs fulfil a similar role by providing indices that can be used as price references. Using an accepted price allows companies to cheaply and efficiently refer to the market price for the underlying metal as defined in the specifications of the LME's contracts or of the PRA's indices.

Last but not least, companies that refer to globally accepted prices, like the LME's, retain the **optionality** to be able to hedge their exposure to the price of the underlying metal without any basis risk on that exposure. By being able to trade in standardised and liquid markets, companies that refer to LME prices are then empowered to be flexible in their decisions. They can lock, in or float prices, based on their risk appetite, their future projections and the shape of the forward curve. However, producers and consumers will still have exposure to premiums and discounts because these are so specific to the material in question. For example, the cost of a premium will factor in details such as the port a shipment is coming from, or going to. Given that standardisation breeds liquidity in a market, it would be almost impossible to find a market where premiums and discounts could be traded.

Using LME reference prices in physical copper contracts

The LME Official Price for copper is established daily from the bid and offer prices discovered at the close of the second morning Ring (at 12:30-13:15 London time in the LME's open outcry trading floor). The LME Official Settlement Price, also discovered in the Ring, is the cash seller's price for copper and is used extensively in physical copper contracts throughout the world. This means it represents the price of an approved LME brand of copper available for delivery in any location in the LME's global warehouse network in two working days' time. Once the price is set, the LME records, distributes and publishes the price to vendors around the world, who will in turn disseminate the data to industry users across the value chain.

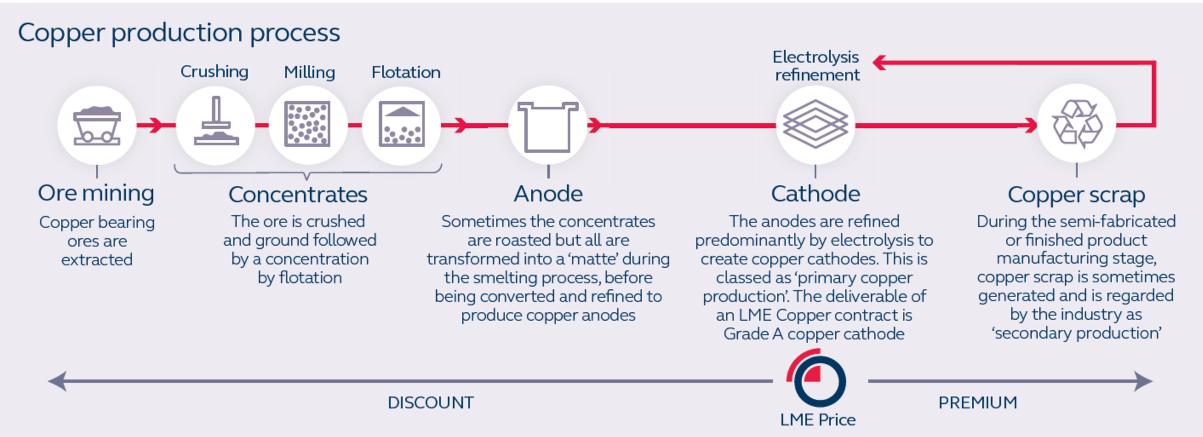
For copper, the LME Official Settlement price will be used throughout the industry pipeline in physical contracts in a number of ways. For example:

The Production Stage – extraction of copper from its host rock (ore)

Copper is typically extracted by crushing oxide ore rock into powders, which normally contain between 0.5 and 2.0 percent copper. Consequently, copper producers will use a metal contract with a price formula referencing the Official Settlement Price (the cash seller price) for copper, which allows for the price differential between the ore and the LME grade of underlying metal – in this case Grade A copper cathode.

The End Product Stage – copper semi-fabrication to final use

Material is priced at a discount to the LME Official Price for copper until the added value of fabrication becomes more significant and the metal object progresses along the supply chain, away from the LME copper grade material, to that of a finished product e.g. copper wire. At this point, it is priced at a premium. The metal content in a contract is always priced, but, if the metal value decreases as a percentage of total value, so does the direct exposure to the LME price. Accordingly, copper fabricators will, similarly to the copper producers above, use a percentage of the LME Official Price for copper in their contracts dependent on what proportion of the value of the products is attributable to the underlying copper metal (see graphic below).



The role of third party pricing in the steel industry

Historically, the carbon steel industry has been quite restrained in its use of reference prices in physical contracts, preferring instead to rely on long-term fixed contracts where possible, or on the active spot market as an indication of where the market value is for a specific deal. However, the lack of a globally accepted reference price has made steel price risk very difficult to manage and created a lot of uncertainty for companies along the value chain. This has now changed. Since the launch of the LME Steel Scrap and LME Steel Rebar futures, it is now possible to risk manage the price of steel.

The LME's ferrous contracts are cash-settled futures that refer to underlying indices published by Platts TSI - a PRA. Companies can now reference the LME monthly price in their contracts, or use the corresponding monthly average of the daily prices published by Platts TSI, and then trade and hedge the same underlying price on the LME. This removes the basis risk between the price reference and the hedge, while leaving the company exposed only to the premiums or discounts negotiated for an individual contract.

Over decades, if not centuries, the base metals industry has developed sophisticated practices for the market pricing of metals at all stages along the value chain, from mineral ores to finished products. With the recent arrival of liquid steel futures, and related risk-management opportunities, the steel industry has now found the missing incentive that was keeping it from developing similar contractual practices. Now the carbon steel industry can also start benefitting from the increased transparency, efficiency and optionality that have been available to the base metals markets for decades.

For more information on referencing LME prices in physical contracts please contact Hugo Brodie for base metals and Alberto Xodo for ferrous.