

Guide to the London Metal Exchange



SETTING THE GLOBAL STANDARD



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The London Metal Exchange

Setting the global standard

The London Metal Exchange (LME) is the world centre for the trading of industrial metals. The majority of non-ferrous on-exchange trading is conducted on our markets, with a growing presence in ferrous and precious metals.

The LME brings together participants from the physical industry and the financial community to create a vital, robust and regulated market where there is always a buyer or seller, where there is always a price and where there is always the opportunity to transfer or take on risk – 24 hours a day.

Investors value the LME as a vibrant futures exchange with close links to industry where they can take on risk based on prices that are truly reflective of global supply and demand. The possibility of physical delivery via the worldwide network of LME-approved warehouses makes this the perfect hedging venue for industry, and the world gains reference prices they trust.

The Exchange provides producers and consumers of metal not only with a physical market of last resort but also, perhaps most importantly of all, with the ability to protect against the risk of rising and falling global metal prices.

After the successful introduction of our ferrous contracts and precious metals, we continue to work with the metals community to launch new products which best serve their price-risk management needs. In 2019, these included cash-settled products across the aluminium supply chain, hot-rolled coil futures and new products to service the electric vehicle battery industry.

The LME continues to provide the global market with an increasing range of price risk management and trading tools.





Annual trading

\$15.7
trillion

4.1
billion tonnes

185
million lots

2
million lots of
open interest





Price risk management

The perfect hedge

The LME is a meeting place of buyers and sellers of metal futures and options. We provide producers and consumers of metal around the world with the best way to manage their exposure to the risk created by metal price volatility.

Producers (those who sell the metal they mine and refine) are at risk of prices falling, and consumers (those who buy and make things from metal) are at risk of prices rising.

Hedging against these price movements using the LME's futures and options enables the metal industry to focus on their core business.

Benefits of hedging:

- protect against adverse price movements
- lock in margins and offer long-term fixed prices to customers
- improve budget forecasts
- turn inventory into cash or security for finance
- protect physical inventory against price falls
- hedge physical purchases in times of production difficulty.

Price discovery

The world's price formation venue

The LME is the de facto price formation venue for non-ferrous metals. The prices 'discovered' on our platforms are used as the global reference and basis for physical trading as well as in the valuation of portfolios, in commodity indices and metal ETFs.

Our prices are trusted because the LME is the most liquid and most traded industrial metals market in the world. Our global network of warehouses ensures these prices are truly reflective of supply and demand.

Real-time bid and offer prices are available 24 hours a day via our market data service LMElive and also from approved data vendors. The LME also aggregates and publishes a set of reference prices that are based on highly liquid periods of the trading day.

The LME is also home to the LBMA Platinum and Palladium Prices, which are discovered in a twice-daily auction. This pricing solution is delivered via LMEbullion, our custom-built electronic platform.

#	CO	FB	MO	FB	Metal	Settlement
1	Final		Final		AH	1858.50
2	3 months	2320.00	3 months	1450.00	AA	1850.00
3	CASH-3M	22.00c	CASH-3M	230.50c	NA	1873.00
4	C-MAY	10.00c	C-MAY	17.50c	CA	4735.50
5	MAY-JUN	10.00c	MAY-JUN	75.00c	MO	14730.00
6	JUN-JUL	10.00c	JUN-JUL	77.00c	ZS	1650.00
7	JUL-3a	32.00c	JUL-3a	57.00c	NI	8730.00
8	3a-AUG	32.00c	3a-AUG	32.50c	CO	23865.00
9	AUG-SEP	47.00c	AUG-SEP	48.00c	PB	1737.00
10	SEP-OCT	47.00c	SEP-OCT	83.00c	FM	100.00
11	OCT-NOV	47.00c	OCT-NOV	83.00c	SN	17425.00
12	NOV-DEC	47.00c	NOV-DEC	83.00c	AE	120.00
					AN	200.00
					AS	85.00
					AW	100.00



LME reference prices

What are they and how are they calculated?	How are they used?	Prompt dates	When are they established?	Currency
LME Official Price and Official Settlement Price				
The LME Official Price is the last bid and offer quoted during the second open-out cry (or Ring) session and the LME Official Settlement Price is the last cash offer price	The LME Official Price is used as the global reference for physical contracts and the LME Official Settlement Price is the price at which all LME futures are settled	Cash, 3 month and 3-forward December prices* (which roll annually)	12.20 – 13.25**	USD (we also publish exchange rates for EUR, GBP, JPY)
LME Unofficial Price				
The LME Unofficial Price is the last bid and offer quoted during the fourth Ring	The LME Unofficial Price is a good indicator of afternoon trading and is used as a reference price	Cash, 3 month and 3-forward December prices* (which roll annually)	15.00 – 15.35 (ex minors)	USD
LME Closing Price (or Valuation)				
The LME Closing Price (also known as the Evening Evaluation) is determined by the LME Quotations Committee after the close of trading on the Ring	Used by LME Clear and LME members for calculating margins	All prompt dates	15.50 – 17.00	USD, EUR, GBP, JPY
LME Asian Reference Price				
The LME Asian Reference Price is calculated on the volume-weighted average price (VWAP) of trades transacted on our electronic trading platform, LMEselect, between 06.55–07.00 or 07.55–08.00 during British Summer Time (BST)	The LME Asian Reference Price provides traders with a useful early-day guide to trading in one of the most significant and liquid periods of the day	3 month LME Aluminium, LME Copper and LME Zinc	06.55 – 07.00 (07.55 – 08.00 BST)	USD
LMEprecious Reference Price				
The LMEprecious reference prices provide intra-day LME Gold and LME Silver spot price points and are calculated three times a day	Used by the precious metals market to manage price risk throughout the trading day	Spot for LME Gold and LME Silver	10.30 – 10.32 12.00 – 12.02 15.00 – 15.02	USD

* 15 month official and closing prices published for tin and minor metals. 15 month unofficial price also available for tin.

** All times are Greenwich Mean Time (GMT) unless otherwise stated.

Warehousing, branding and price convergence

The physical market of last resort

Our market complements the physical. The possibility of physical delivery – supported by over 550 international storage facilities and more than 500 LME listed brands – results in price convergence ensuring our prices remain in line with the physical industry.

The combination of price convergence, the global reach of the LME's storage facilities and listed metal brands, the fact that physical deals are negotiated using LME prices and unparalleled levels of liquidity means the world gains a price it trusts.

In times of extreme shortage or over supply the LME also provides producers and consumers with a physical market of last resort. LME warehouse companies must meet strict criteria before they are approved and are typically located in high-consumption areas or logistical trading hubs for the shipment of material.

All metals stored in LME-approved storage facilities on warrant are LME-approved brands from LME-approved producers ensuring conformance to the Exchange's strict rules on commodity grade, quality and shape.

The LME is also committed to the introduction of responsible sourcing requirements to its brand lists. We have been working with a variety of industry bodies and the producers of our listed brands regarding the responsible sourcing of materials for several years.

The LME occupies a unique position in the global metals industry. Our brand lists determine which brands of metal can be delivered against LME contracts; and more broadly, many global physical supply contracts stipulate LME brands for delivery. As such, the LME fulfils a broader role across much of the metals industry in identifying the brands which reflect the needs of the market. We are therefore able to work with our industry to ensure that our brand lists embody global expectations of best practice.

Updates to our policy can be found at lme.com/responsiblesourcing



over

550

storage facilities across
34 locations internationally

498

LME-approved brands
from 57 countries

5.2m

tonnes delivered in and out in 2018

What is a future?

A 'future' is the obligation to buy or sell a standard quantity of a specified asset (metal) on a set date, at a fixed price agreed today.

What is an option?

An 'option' is the right, but not the obligation, to buy or sell a futures contract at a price (the strike price) agreed today.

What are prompt dates?

A 'prompt date' is the date by which an LME warrant must be delivered by the seller and paid for by the buyer of a futures contract. Also known as the 'settlement date'.





The contracts and the metals

Today's innovation, tomorrow's standard

The LME's products and services are designed with the metal community in mind and this is what makes the LME unique.

The LME prides itself on the unique settlement-date structure of its contracts and its focus on the physical market.

Designed to reflect the nature and timing of bilaterally negotiated metal trades, market participants can use the LME's contracts to transfer or take on risk against metal prices daily out to 3 months, weekly out to 6 months and monthly out to anything up to 123 months – that's over ten years in the future.

Through our flexible prompt-date structure, large lot sizes that reflect industrial usage, and range of contract types the LME provides participants with unparalleled opportunity to transfer and take on risk.

What are 3rd Wednesdays?

The traditional foundation of liquidity on the LME is the 3 month contract; a contract with a rolling prompt date. 3rd Wednesday contracts offer participants the opportunity to trade LME contracts on a fixed prompt date. The 3rd Wednesday contracts are the monthly futures equivalent in the LME prompt date structure. The overall contract specification (trading times, contract size, and physical delivery) are exactly the same as the 3 month contract, or any other prompt date.

Types of LME contracts

LME futures

Physically settled contracts daily out to 3 months, weekly out to 6 months and monthly up to 123 months; cash settled contracts out to 15 months

LME traded options

American-style monthly options up to 63 months

LME TAPOS

(traded average price options)

Asian-style monthly average-price options up to 63 months

Monthly Average Futures

A contract where the difference between the 'fixed' price and 'floating' Monthly Average Settlement Price (MASP) is financially settled

LMEminis

Small-lot, cash-settled monthly futures out to 12 months

London Mini Futures

Small-lot, cash-settled monthly futures traded on HKEX, traded and priced in renminbi and US dollars

Contract specifications

Metal		Lot size	Shape	Underlying metal*	Contract types
Precious metals	LME Gold	100 fine troy ounces	N/A	Unallocated Loco London Fine Gold	Futures
	LME Silver	5,000 fine troy ounces	N/A	Unallocated Loco London Fine Silver	Futures
Non-ferrous metals	LME Aluminium	25mt	Ingots Sows T-bars	High grade primary aluminium	Futures Traded options TAPOs Monthly Average Futures London Mini Futures
	LME Aluminium Alloy	20mt	Ingots Small Sows Large Sows T-bars	Aluminium alloy	Futures Traded options TAPOs Monthly Average Futures
	LME Aluminium Premiums US Premium, West-Europe Premium, East-Asia Premium, South-East Asia Premium	25mt	N/A	High-grade primary aluminium premium warrant in each designated region	Futures
	LME Copper	25mt	Cathodes	Grade A copper	Futures Traded options TAPOs Monthly Average Futures London Mini Futures
	LME Lead	25mt	Ingots	Standard lead of 99.97% purity (minimum)	Futures Traded options TAPOs Monthly Average Futures
	LME Nickel	6mt	Cathodes (full plate or cut) Pellets Briquettes	Primary nickel of 99.80% purity (minimum)	Futures Traded options TAPOs Monthly Average Futures
	LME NASAAC	20mt	Ingots Small Sows Large Sows T-bars	ME NA380.1 North American special aluminium alloy	Futures Traded options TAPOs Monthly Average Futures
	LME Tin	5mt	Ingots	Tin of 99.85% purity (minimum)	Futures Traded options TAPOs Monthly Average Futures
	LME Zinc	25mt	Ingots	Special high-grade zinc of 99.995% purity (minimum)	Futures Traded options TAPOs Monthly Average Futures London Mini Futures
	Minor metals	LME Cobalt	1mt	Cathodes (broken or cut) Rounds Briquettes Ingots	99.30% pure cobalt
Ferrous metals	LME Steel Rebar	10mt	N/A	N/A	Cash-settled futures
	LME Steel Scrap	10mt	N/A	N/A	Cash-settled futures

mt=metric tonne

*Quality specifications are available at www.lme.com

	Prompt dates	Main industry uses	First listed
	Daily: out to 25 days Monthly: out to 24 months Quarterly: out to 5 years	Jewellery	2017
	Daily: out to 25 days Monthly: out to 24 months Quarterly: out to 5 years	Jewellery, medicine, nuclear reactors	2017
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 123 months (63 for TAPOs and traded options)	Automotive, transport, construction, aeronautical, packaging	1978 (1987 current specification)
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 27 months	Automotive, transport, construction, aeronautical, packaging	1992
	Third Wednesday of each maturity month, subject to trading regulations	Hedge regional premium exposure; discover transparent on-exchange premium prices; take delivery of readily available metal	2015
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 123 months (63 for TAPOs and traded options)	Electricals, construction	1877 (1986 current specification)
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 63 months	Batteries	1920
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 63 months	Stainless steel	1979
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 27 months	Automotive	2002
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 15 months	Plating, soldering	1877 (1989 current specification)
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 63 months	Galvanisation, brass	1920 (1986 current specification)
	Daily: out to 3 months Weekly: 3 out to 6 months Monthly: 7 out to 15 months	Batteries, turbines, paints	2010
	Monthly: out to 15 months	Construction	2015
	Monthly: out to 15 months	Steel production	2015

All contracts quoted in US dollars and clearable in US dollars, pound sterling, Euro and Japanese yen (ex LME Steel Billet)

Cash-settled contracts

Metal		Lot size	Contract type	Contract code	Prompt dates
Non-ferrous metals	LME Aluminium Premium Duty Unpaid European (Fastmarkets MB)	25mt	Cash-settled futures	EA	Monthly prompts out to 15 months
	LME Aluminium Premium Duty Paid US Midwest (Platts)	25mt	Cash-settled futures	UP	Monthly prompts out to 15 months
	LME Alumina (CRU/Fastmarkets MB)	50mt	Cash-settled futures	AM	Monthly prompts out to 15 months
Ferrous metals	LME Steel HRC N. America (Platts)	10st	Cash-settled futures	HU	Monthly prompts out to 15 months
	LME Steel HRC FOB China (Argus)	10mt	Cash-settled futures	HC	Monthly prompts out to 15 months
	LME Steel Rebar	10mt	Cash-settled futures	SR	Monthly prompts out to 15 months
	LME Steel Scrap	10mt	Cash-settled futures	SC	Monthly prompts out to 15 months
Minor metals	LME Cobalt (Fastmarkets MB)	1mt	Cash-settled futures	CB	Monthly prompts out to 15 months
	LME Molybdenum (Platts)	2,205lbs	Cash-settled futures	MD	Monthly prompts out to 15 months



Trading

Unparalleled opportunity to transfer or take on risk

Futures and options are traded on three platforms at the London Metal Exchange.

Participants wishing to trade on the LME must do so with one of our member firms.

This can be done either directly with an LME member or through member-sponsored access to the LME's electronic trading platform, LMEselect.

Counterparty risk is mitigated by LME Clear, our own clearing house purpose-built for the metals market. As a Recognised Investment Exchange, the LME has a statutory requirement to ensure that business on our markets is conducted in a fair and orderly manner, providing proper protection to investors. The LME is regulated by the Financial Conduct Authority (FCA). The FCA also regulates those LME members that conduct investment business.

Trading platforms at LME

The Ring | Trading hours: 11.40 – 17.00

Open-outcry trading floor. Liquidity is concentrated into five-minute sessions known as Rings. LME Official, Unofficial and Closing Prices are all, or in part, derived from trading activity on the Ring.

LMEselect | Trading hours: 01.00 – 19.00*

Electronic trading platform, for the trading of all LME contracts. Offers a range of advanced features all tailored to the LME's unique prompt date structure.

Inter-office telephone | Trading hours: 24 hours

Members' indicative quotes are distributed via the vendor network and can be executed by telephone.

For a full list of LME member firms, please visit our website

lme.com/trading

*LMEprecious trading hours on LMEselect 01.00-20.00



LME Clear

Trade and clear in one venue

LME Clear is the clearing house designed and built specifically for users of the London Metal Exchange. It delivers innovative clearing and settlement services for traded transactions.

LME Clear is the central counterparty for all LME clearing members and their trading activity. It provides a financial guarantee to every traded contract, acting as ‘the seller to every buyer and the buyer to every seller’.

In the event of a clearing member default, LME Clear will step in and manage the defaulting clearing member’s outstanding risk positions swiftly and efficiently.

LMEmercury, LME Clear’s revolutionary clearing system, allows members to monitor and assess the risk they are taking on in real time. This in turn means clearing members have more control over their business in key areas such as portfolio management, option expiry handling and reporting.

LME Clear regularly introduces new services to meet customer needs. We have added a position-transfer service, inter-prompt spread methodology, trade compression, warrants and offshore Renminbi as collateral, averaging solutions and gross segregated accounts.

lme.com/lmeclear
lmeclearing@lme.com

Other services

LME Education

The LME provides an extensive global programme of training courses for the metal and financial industries. Our popular introductory courses delivered in partnership with Euromoney Training, provide the opportunity to learn how to effectively manage the impact of price volatility through the use of futures and options.

We also offer more advanced courses and can create bespoke training programmes.

lme.com/education
education@lme.com

Market Data

Pricing data can be accessed via the LME's network of vendors including LMElive, our own real-time price and data service. LMElive offers the opportunity to monitor price volatility with live or 30-minute delayed data and provides a comprehensive view of futures and options trading with easy access via your laptop, PC or mobile device. Subscribe for a four-week free trial at:

lmelive.com
customersupport@lmelive.com

LMEwire – EMIR trade reporting made simple

LMEwire is our trade-reporting service that enables members to meet their regulatory requirements and assist with EMIR compliance. Powered by LME Clear, LMEwire is efficient, cost-effective and customised to the needs of the metals market.

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