

A Guide to LME Clear


 **LME** Clear
An HKEX Company

THE WAY FORWARD IS CLEAR



The way forward is clear

LME Clear delivers innovative clearing and settlement services for traded transactions. As clearing house for the London Metal Exchange (LME), LME Clear is the central counterparty (CCP) 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’.



LME Clear takes an innovative and inclusive approach to clearing based on cutting-edge technology. The clearing house was designed and built from the ground up in close consultation with the LME’s members and launched in September 2014. Today it clears more than 600,000 contracts per day with annual trades worth more than \$12 trillion.

LME Clear provides enhanced end-to-end processing. Its real-time interface means real-time risk management, which in turn means clearing members have more control over their business in key areas such as portfolio management, option expiry handling and reporting.

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, LMEmercury, allows members to monitor and assess the risk they are taking on in real time, reducing risk for all participants in the global metals market. It is capable of clearing matched trades at a rate of more than 500 trades per second, calculating margins and prices in real time, always providing the latest view of market behaviours and risk factors.

The technology and processes that underpin LMEmercury have transformed the clearing industry. LME Clear has taken technology more commonly found in a high-volume, low-latency trading environment and applied it to the clearing business – transforming traditional end-of-day risk reporting into active, real-time risk management with robust systematic controls, alerts and monitoring.

LMEmercury also uses an innovative traffic light system to show the collateral position of clearing members against their collateral requirement.

It also provides real-time screens and reports, giving users the most up to date information, with the ability to export data directly from the user interface or via the comprehensive reporting capabilities. The system stores all clearing-related information in a database designed to scale with the growth of LME Clear, architected for rapid data retrieval, large volumes and efficient storage.

LMEwire

LMEwire is the trade reporting service, powered by LME Clear, which enables members to meet their regulatory trade reporting requirements for both exchange-traded derivatives and over-the-counter trading.

LME Clear and the LME

LME Clear is the first clearing house tailored specifically to the metals market. As the clearing house for the LME, LME Clear understands the unique workings of this marketplace and works closely with clearing members to deliver the particular tools and services they need.

Such a close association means that the LME can offer a tailored trading and clearing solution for the metals markets. LME Clear has focused on giving LME Members more control over how they manage their LME business, including enhanced option expiry handling and enabling them to view their risk position in real time.

The majority of the world's non-ferrous metals futures are traded on the LME, alongside ferrous and precious metals contracts, either via open outcry in the Ring, electronically on LMEselect, or in the 24-hour telephone market.

How it works

LME Clear accepts trades between 01.00 and 20.15 London time. Once all Ring, electronic and telephone trades are matched via LMEsmart, they are passed to LME Clear.

LME Clear operates under the 'Open Offer' model whereby LME Clear will be on risk from the moment the order has deemed to be executed, significantly reducing our member's counterparty risk at trade execution.

LME Clear guarantees the financial settlement of all trades in the event of a counterparty default. LME Clear recalculates a member's margin requirements and collateral holdings in real-time, as positions and collateral change or as market data is updated. Our end-of-day process aggregates all cleared trades into positions. Members can view these positions in real-time via LMEmercury.



Risk management

LME Clear has a robust risk management framework that provides the structure for clear risk policies and processes to evaluate, manage and contain the risks posed to members and the clearing house. Our sophisticated EMIR-compliant risk methodology is continually assessed and updated to meet market and regulatory requirements.

Margins

Cover Distribution calls are made to clearing members during end-of-day processing based on the end-of-day settlement and closing prices and need to be met by 09.00 the next day. Intraday margin calls can also be made to address shortfalls in members' clearing accounts due to material moves in prices intraday, or large trades being sent through.

Margin calls are made by LME Clear to its clearing members, who are responsible for paying the calls for their clients and their own accounts.

Flexible account structures to protect clients

EU regulation requires clearing members to segregate client positions from their own house positions, and to offer their clients a choice of client accounts for clearing, to protect clients in the event of a default of their clearing members.

To facilitate this, LME Clear offers a flexible account structure of a House account, an omnibus client account and an individual segregated client account. A gross omnibus account will be offered in line with MiFID II requirements in time for January 2018.

The default waterfall

In accordance with European and international regulatory guidance, LME Clear has risk controls and financial resources in place to be used if one of the clearing members defaults. This is called the 'default waterfall'.

This is a series of funds which can be drawn upon should a default occur. LME Clear maintains a default fund sized to meet the potential default of the two largest members and their clients in stressed market conditions. This fund is estimated daily using more than 400 stress scenarios.

LME Clear conducts default fire-drills quarterly, simulating the default of multiple clearing members and testing its procedures accordingly with outcomes reported to the Bank of England.

Collateral

Clearing members can use a variety of cash and non-cash collateral to cover their liabilities.

Margin

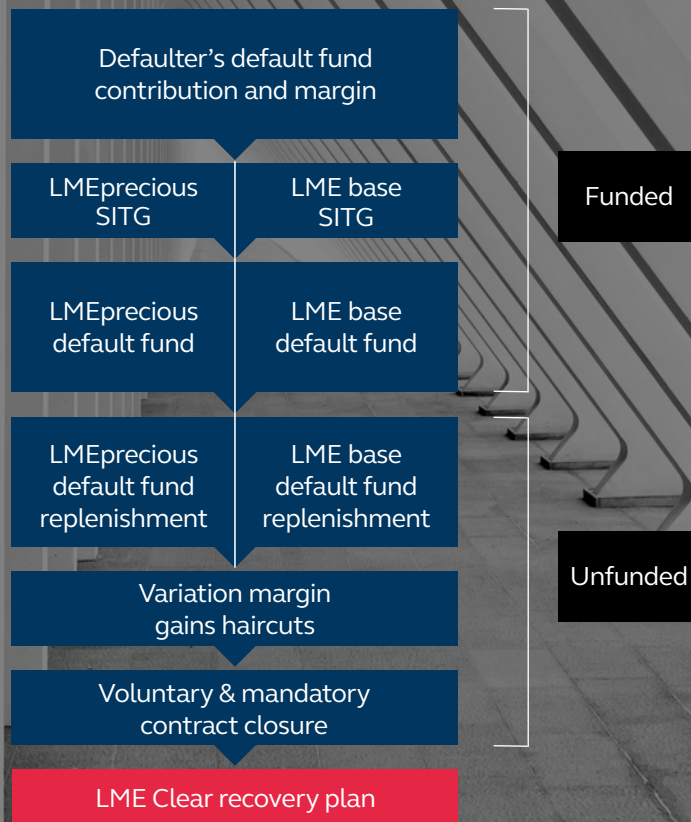
- Cash in US Dollar (USD), pound sterling (GBP), euro (EUR), Japanese yen (JPY) and Chinese offshore renminbi (CNH)
- Gold bullion
- Sovereign bonds from USA, UK, Germany, France, Netherlands, Finland and Japan (in acceptable currencies only)
- Warrants - aluminium, copper, zinc, nickel, lead and tin.

Non-cash collateral & non USD cash collateral are subject to haircuts.

Default fund

Cash in USD only.

The default waterfall



Continuous innovation

Adapting to the needs of our customers is crucial. By listening carefully to our stakeholders and investing in leading-edge technology, LME Clear tailors and enhances its service offering to suit customers' needs.

This approach has led to the introduction of several new services since launch, including:

- **Position Transfer Service** – allows members to move their positions or portfolios from one account to another or from one member to another
- **Inter-prompt spread methodology** – enhancing our margin methodology
- **Trade Compression** – enables members to compress their outstanding contracts
- **LME Warrants and Offshore Renminbi as collateral** – expanding our list of acceptable collateral.

Trade Compression Service

LME Clear's compression service enables members to compress their outstanding contracts, reducing the number of trades and the total notional value outstanding without altering the risk profile of their portfolio. The service provides unilateral risk-neutral post-trade compression for Forward and Monthly Average Future contracts, resulting in the simultaneous termination of the old contracts and creation of new contracts.

Compression can reduce the notional value of a member's position by as much as 90%, helping firms subject to new Basel III capital requirements to achieve greater capital efficiency.

Three options for using compression

- **Automated compression** – all trades in an account are automatically compressed at the chosen frequency
- **Manual compression** – trades to be compressed are selected via the LMEmercury GUI
- **File-based compression** – a file containing trades for compression is sent to LME Clear (only available in certain circumstances).

Warrants as collateral

LME Clear is the first clearing house to accept metal warrants as collateral against margin requirements offering members additional efficiency and flexibility in collateral management.

There are currently six eligible warrants for LME approved non-ferrous metals – aluminium, copper, lead, nickel, tin and zinc – which can be used as collateral against contracts of the same metal. All warrant transfers are executed via LMEsword, and warrants are valued using the closing price adjusted for rent and weight and subject to an accommodation charge.

Offshore renminbi as collateral

Since July 2015, LME Clear members have been able to use Offshore renminbi (CNH) as eligible cash collateral to cover their margin requirements. CNH is one of the top five global payment currencies and our CNH initiative allows clients to seize new opportunities in the rapidly evolving global metals industry. As the world's largest consumer and producer of most metals, we see increasing interest from participants in China looking to hedge global metals price risk.

Gold as collateral

Since launch, LME Clear members have been able to post gold as collateral. Loco London Gold delivered through a London Precious Metals Clearing Ltd (LPMCL) Member can be lodged to cover margin liabilities. Cover value will only be given to allocated Gold Bullion.

Key initiatives

As part of our drive to work closely with clearing members and the wider marketplace, LME Clear has and will continue to explore and implement efficient market solutions and deliver innovative products and services.

LME Clear and precious metals

LMEprecious is the exciting new initiative created by the LME, the World Gold Council and a group of leading industry players to introduce an innovative new suite of exchange-traded, precious metals products centrally cleared by LME Clear. We've delivered a seamless service for the new gold and silver contracts, including a distinct LMEprecious default fund.



Averaging Solutions

The LME will be offering a number of solutions and strategies to enable accurate average price hedging and risk offsetting for Members and clients. The enhancements introduced with LMEmercury R4 will offer an enhanced date structure, providing 2nd business day prompts to facilitate an LME-deliverable position at an average price to 24 months (15 months for tin and lead).

The future

We are always exploring opportunities to further enhance our existing offering, and to expand our capabilities to clearing additional asset classes and OTC trades.

Find out more

Get in touch with the LME Clear Team to discuss our current services and new developments.

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