History of the LME

The LME was established in 1877 as a direct result of Britain’s industrial revolution of the 19th century. This industrialisation led to the import action of enormous tonnages of metal.

The merchants who sourced these materials and invested large sums of money in the ventures, found themselves exposed to high financial risk. Sea voyages were long and hazardous, and the cargo could change in value before it could be sold.

A market quickly developed whereby the metal could be sold for a future date based on the vessel’s estimated arrival time. In this way the merchant was protected against a price fall and the purchaser was protected against a price rise.

Over the years, the process of setting forward prices has become much more sophisticated and has been adopted by all sides of industry, using futures contracts, traded options contracts and derivatives of these, to manage risk.

This is referred to as hedging and remains the main activity on the Exchange today.
The London Metal Exchange (LME) occupies a unique place in the world of non-ferrous metals and is the risk management forum for this global market.

Situated in the heart of The City of London, the LME trades contracts for future delivery and so helps discover what the price of metals will be months and years ahead. This helps industry to plan forward in a world subject to often severe and rapid price movements.

Member firms of the LME are prepared to assume the risk of price movement and LME contracts are available to hedge that risk.

Underpinning all this activity is the assumption that all contracts will be settled out by taking delivery of metal from a warehouse or delivering metal into a warehouse. While the vast majority of contracts are settled out for a cash difference, the fact that there could be a physical transaction keeps the prices in the futures market aligned to the physical. This feature is enormously important to the proper function of the LME’s market.

All this activity, which generates business worth more than US $2,000 billion a year, takes place through the LME and its member firms. The time zone is ideal for global trading and it adds to the reasons why the LME has more than 90 per cent of the world’s business in non-ferrous metals futures.

The work of the Exchange is felt more widely than people imagine, as it is through the LME that consumers achieve better and more stable product prices, and producers can plan their long term business effectively.

For more than 125 years the LME has been a dominant feature in this market, and it is set to continue in that position far into the future.
About the LME

The London Metal Exchange is the world’s premier non-ferrous metals market. It has an international membership and more than 95% of its business comes from overseas. It is a major contributor to the UK’s invisible earnings, responsible for more than £250 million in overseas earnings each year.

Trading on the Exchange consists of open outcry trading, which takes place in ‘the ring’, as the trading arena is known, supported by a 24 hour telephone market and screen-based trading on LME Select.

The advantage of the open outcry periods is that they are highly transparent. This gives added confidence to market users that the prices established at the Exchange are credible and truly reflect the current supply/demand situation. Also, such is the liquidity at the Exchange that the future prices discovered through open outcry trading are recognised and relied upon by industry in every part of the world.

Copper

Copper is used extensively today as a conductor of electricity and is frequently seen in electrical devices as it is economical to use and highly conductive. Copper is also an integral component in the operation of computers as the metal is used in the construction of integrated circuit chips and printed circuit boards. The use of copper in computer technology is becoming more popular, replacing materials such as aluminium, allowing manufacturers to bring down the cost of production and speed up processing time.
The London Metal Exchange provides the global forum for all those who wish to manage the risk of future price movements in non-ferrous metals. The Exchange has developed standardised contracts which assume that on falling due they will result in metal either being delivered or received.

The primary roles of the LME are:

Pricing
Each day the LME announces a set of official prices, which are determined from the open-outcry trading. This trading is highly liquid and trade and industry has confidence that they properly reflect the current supply/demand situation.

These prices are used by industry worldwide as the basis for contracts for the movement of physical metal throughout the cycle of production from miners through smelters, fabricators, merchants and stockists to end users, and back again through recycling processes.

Hedging
Hedging is the process of managing the risk of metal price change by offsetting that risk in the futures market. Hedging can vary in complexity from a relatively simple activity, through to highly complex strategies, including the use of options.

The ability to hedge means that industry can decide on the amount of risk it is prepared to accept. It may wish to eliminate the risk entirely and can generally do so quickly and easily using the LME. Hedging by trade and industry is the opposite of speculation and is undertaken in order to eliminate an existing physical price risk, by taking a compensating position in the futures market. Speculators come to the futures market with no initial risk. They assume risk by taking futures positions.

Hedgers reduce or eliminate the chance of further losses or profits, while the speculators risk losses in order to make profits.

Delivery
All LME contracts assume delivery of physical metal. To meet this need, large stocks of metal are held in a worldwide network of warehouses, approved, but not owned, by the LME. Very few LME contracts result in a delivery, the vast majority of contracts being hedged contracts bought or sold back before falling due. As a result, deliveries that do take place, either in or out of a warehouse, strongly reflect the physical market demand and supply. The LME’s daily stock reports play a major part in the assessment of prices quoted by market makers.
Aluminium

Aluminium is highly beneficial to consumers, providing strong but lightweight products for use in building and construction, transport, consumer durables, packaging and machinery. Aluminium is also particularly suited for use in light bulbs due to its high electrical conductivity, low weight and good resistance to corrosion. Almost all electric lights, motors, appliances and power systems depend on vast grids of aluminium wire. The power supply infrastructure of some of the world’s largest buildings are made of aluminium.
Nickel
Nickel is by far one of the most useful metals because of its strength, and corrosion resistance. It is used in countless ways and is a part of almost every alloy made. It is estimated that there are over 300,000 uses for nickel, these uses range from being used in circuit boards, to being used in over 65,000 fasteners that keep the Statue of Liberty standing! The transportation industry recognised the benefits of nickel when installing the Wincro Suregrip stainless steel floorplate for the pedestrian platforms within Waterloo station. The long durability and low maintenance properties of the product provided a cost effective solution.

The Exchange provides the environment for trading. It has a statutory requirement of ensuring that business on its markets is conducted in an orderly manner, providing proper protection to investors. The members are the institutions involved in trading with each other and with their customers. Their regulatory requirements include the provision of the appropriate service to those customers. Regulation of the market is largely carried out by the LME, while the Financial Services Authority (FSA) is responsible for regulating the financial soundness and conduct of LME members' business.

Approved as a recognised investment exchange (RIE) and conforming with British and other international regulatory requirements, the LME offers, through price, volume transparency and audit trails, a legally safe forum for metal trading. As an RIE, the Exchange comes under the direct jurisdiction of the FSA. LME members also operate in a strict regulatory environment policed by the FSA.

It is the responsibility of the LME to regulate the operation of the market; the FSA is responsible for the authorisation and regulation and conduct of business issues of the members of the LME.

Beyond this, both the Exchange and its members are subject to regulatory controls and input from various UK bodies and government offices, as well as directives from the EU Commission in Brussels. In international trading, rules applied by overseas regulatory bodies such as the CFTC in the USA also have to be taken into account.

To ensure the observance of these regulations, the LME has a compliance department under the supervision of its executive director of regulation and compliance. This department monitors the market and member positions in order to analyse developments and ensure that the LME is delivering its regulatory responsibilities.
Warehousing

Delivery against LME contracts is in the form of LME warrants, which are bearer documents of title enabling the holder to take possession of a specified parcel of metal at a specified LME approved warehouse. Each LME warrant is for one lot of metal, the tonnage of which is dependent on the contract specification. The front of the LME warrant displays information about the parcel of metal, including its brand, the exact tonnage, the shape and the location.

Warrants are issued by the warehouse companies at the request of the owner of the metal once it is properly stored in an LME approved warehouse and the warehouse company has ensured conformity with the LME’s Special Contract Rules for that metal. These rules include, but are not limited to, the technical specification of the metal, its shape, weight and bundling. The metal must also be of a brand that is approved and listed by the LME.

The LME is very proud of its global role in providing a pricing mechanism that reflects the state of the markets it serves. An essential factor in achieving this aim is for the LME to
maintain a spread of approved warehouse locations that reflects the needs of the users of the market and for the LME to monitor those approved locations for continued compliance with the listing criteria. Such criteria include the need for locations to be in areas of net consumption or to be ‘gateways’ serving those areas of net consumption and also for them to meet the LME’s strict legal, taxation and customs requirements.

The LME is also active in assessing potential new locations as good delivery points. The location criteria are designed to ensure that metal is stored in locations close to where it is needed, rather than areas of production, thus assisting traders and industry in meeting their last resort delivery requirements as readily as possible.

Ultimately, only a relatively small percentage of LME contracts actually result in delivery, as the vast majority of contracts prove to be hedging contracts bought or sold back before falling due for settlement. As a result, the deliveries that do take place, either in or out of warehouse, will reflect the physical market demand and supply.
Clearing

Throughout the bulk of the London business day, the LME’s contracted clearing house, the London Clearing House Ltd (LCH), is operating to clear LME contracts.

Briefly, clearing works as follows: one clearing member contracts with another clearing member to buy metal. Both clearing members enter details of the trade into the computerised matching system, which feeds the information to the LCH.

Assuming both parties’ entries agree on such details as time of trade, price, prompt date, contracting parties and volume, the trade is accepted as matched.

The LCH is owned by three London exchanges (LME, LIFFE and IPE) and their memberships, who give it considerable financial backing by way of £150M in bankers’ guarantees, supported by a similar amount in the form of a members’ default fund. As such, the LCH is able to assume a contractual role in these matched trades, becoming the buyer to the seller and vice versa. Therefore, clearing members are protected from the risk of business failure by other clearing members for that portion of their mutual business that is cleared. Non-clearing members’ and clients’ contracts with clearing members are not affected by clearing; they remain principals’ contracts.

The LCH is taking on market risk when it accepts trades into clearing and it covers that risk by requiring payment of margins - cash amounts that cover the extent of any losses a contract might show. The LCH looks at all the positions of a member when calling margins, since a member may have some positions in profit and others in a loss situation, they will call margins on the basis of the member’s net position. Margins may be provided in cash or by collateral such as bank guarantees.

Arbitration

LME arbitration is a private dispute resolution system, designed to settle disputes fairly, expertly and economically, without having to resort to action in the UK or other courts. LME arbitration, being commercial, is designed, not for mediation or conciliation, but to result in outright settlement. The parties will have agreed that an independent decision on their dispute will be made by a third party, in the form of one, two, or even three arbitrators under the LME arbitration rules. The LME’s arbitration service is generally recognised as the best available to the metals world. Indeed, so well regarded is the LME’s arbitration facility that the service is used by a growing number of enterprises who have no direct involvement in metals.
Introduction to LME Contracts

London Metal Exchange futures and traded options contracts are available for all exchange traded, non-ferrous metals. The LME also operates futures and traded options contracts based on an index (LMEX) of the six primary contracts.

Copper Grade A Contract

Copper was the first mineral that man extracted from the earth and along with tin gave rise to the Bronze Age. As the ages and technology progressed the uses for copper increased. With this rapid increase in demand, exploration for the metal was extended throughout the world laying down the foundations for the industry as we know it today. Copper is an excellent conductor of electricity, as such one of its main industrial uses is for the production of cable, wire and electrical products for both the electrical and building industries. The construction industry accounts for copper’s largest usage in such areas as pipes for plumbing, heating and ventilation, as well as building wire and sheet metal facings.

High Grade Primary Aluminium Contract

Despite being the most prolific metal on earth, aluminium only began to be used extensively once an inexpensive method for distilling it by means of electrolytic reduction was discovered in the mid 19th century. It is extremely light, pliable, has high conductivity and is resistant to rust. Little wonder then that it has become the most extensively used metal and more recently the largest contract traded on the LME.

Primary Nickel Contract

In the mid 18th century nickel was first isolated as a separate metal. Prior to this time it was found in copper mines and thought to be an unsmeltable copper ore. It is said that this lack of malleability caused it to be named after the devil (Old Nick). Nickel can resist corrosion and maintains its physical and mechanical properties even when placed under extreme temperatures. Once these properties were recognised the development of nickel began. It was found that by combining nickel with steel, even in small quantities, the durability and strength of the steel increased significantly as did its resistance to corrosion. This partnership has remained and the production of stainless steel is now the single largest consumer of nickel today. This highly useful metal is also used in the production of many different metal alloys for specialised use.

The production and consumption figures used for this and all the contracts are derived from a variety of trade associations, technical publications and industry analysts.
Tin

Tinplate is the primary material for food canning and shares the beverage can market with aluminium. The humble ‘tin’ can, so often taken for granted because of its long history and present familiarity, is actually the simplest and most efficient way of preserving a vast range of foods. The tin coating on the tinplate can, provides a non-toxic surface and prevents corrosion; it also helps in the various can-making processes. Tin is a valuable metal with a broad range of uses in industries such as electronics and is also the fluoride carrier in toothpaste. It can also be recycled from several of its end-uses, and this produces ‘secondary’ tin ingots, which can be re-used.
Lead plays a major part in our everyday lives. We safely use and recycle lead in dozens of important consumer, industrial and defence applications, including batteries for automobiles, industrial forklift trucks, waterproofing material, electronics and computers to name but a few. Because of its high density, capability and availability, lead is also an outstanding material for radiation shielding. Major progress in the medical field’s use of radiation for imaging diagnostics such as CAT scans can be directly attributed to the use of sophisticated lead shielding to protect patients, healthcare professionals and the public.
Special High Grade Zinc Contract

Zinc is commonly mined as a co-product with lead and both metals have growing core markets for their consumption. For lead this is its use in batteries and for zinc the main market is galvanising, which accounts for almost half its modern day demand. Zinc’s electropositive nature enables metals to be readily galvanised. This provides an excellent protective coat against corrosion for building structures, vehicles, machinery and household equipment.

Tin Contract

Tin, like copper, was one of the first metals mined and its excellent qualities and shiny finish made it a highly sought after commodity. Particularly liked for its fusion abilities in the making of alloys, notably bronze, and its non-toxic qualities, tin was soon traded in many parts of the world. Not surprisingly it was traded on the LME from the market’s outset in 1877. Today it is used in the production of bronze, pewter and die-casting alloys and, in modern engineering, to make tungsten more machineable. However, the largest uses for tin are for the production of solder and for tin plating (providing an attractive coating to iron and steel products).

Standard Lead Contract

Apart from periods of international conflict when trading was suspended, the LME has long been the mainstream of free trade in lead. This metal has had a checkered history, being very soft and pliable and highly resistant to corrosion; it was ideal for use in plumbing as well as for the manufacture of pewter. In the early 20th century the automotive industry expanded and new areas of consumption – batteries and petrol – created an enormous market. Storage batteries remain the main outlet but lead free fuels have caused a decline in its usage. Ironically, environmental issues have brought about new uses for the metal, particularly in the housing of power generation units to protect against electrical charges or dangerous radiations.
With a modified A380.1 specification, this new aluminium alloy contract was designed following intensive discussions with all segments of the North American secondary aluminium industry. It has a specification that reflects the production and consumption of aluminium alloy in the US, Mexico and Canada.

The use of aluminium alloy, particularly for the production of lightweight engine parts, has been steadily growing internationally over recent years. The main consumers of aluminium alloy; auto manufacturers, use different grades of alloy in different regions of the world. For this reason, the LME entered talks with secondary smelters, scrap dealers, consumers, traders and merchants in North America to develop the LME’s first regional contract.

The LMEX contract is an index of the 6 primary base metals contracts traded on the Exchange. It is weighted on the basis of world production and volumes traded on the LME. It is specifically designed to give a single liquid reference price. This provides the investment community with the opportunity to diversify portfolios to include an element of industrial metals without the complications of physical delivery inherent to the underlying commodity contracts. Independent academic research simulating the contract over 15 years has shown that the value of LMEX has little correlation with the equity and bond markets. Consequently the research concludes that at certain times the investor may enjoy superior returns at lower risk when LMEX is included in their portfolio.
Aluminium is mixed with small amounts of copper, magnesium, zinc, and other elements to form aluminium alloys. The added elements give aluminium strength and additional properties that make it a very useful metal. A large proportion of aluminium alloy production goes to the packaging industry for use in such items as beverage cans, bottle caps, foil wrappers and food containers.

The construction industry uses aluminium alloys extensively for applications such as gutters, panels, roofing and window frames. Manufacturers of automotive equipment such as Honda, use aluminium alloys in the production of piston heads which form an integral part of today’s motor engine.
The simulated past performance of LMEX, available from the LME, contains a statement explaining how the figures were calculated. The calculations were based on certain assumptions: different assumptions may have produced different results. The past performance of metals prices and the simulated past performance of LMEX are not guarantees of the future performance of metals prices or of LMEX. LME contracts may only be offered or sold to United States foreign futures and options customers by firms registered with the Commodity Futures Trading Commission (CFTC), or firms who are permitted to solicit and accept money from foreign futures and options customers for trading on the LME pursuant to CFTC Rule 30.10.

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