LME Focus Day: Hedging Workshop

Edric Koh, Head of Corporate Sales, LME
Jean-Luc Fiorenzoni, Founding Partner, Commos
London, 27 October 2022

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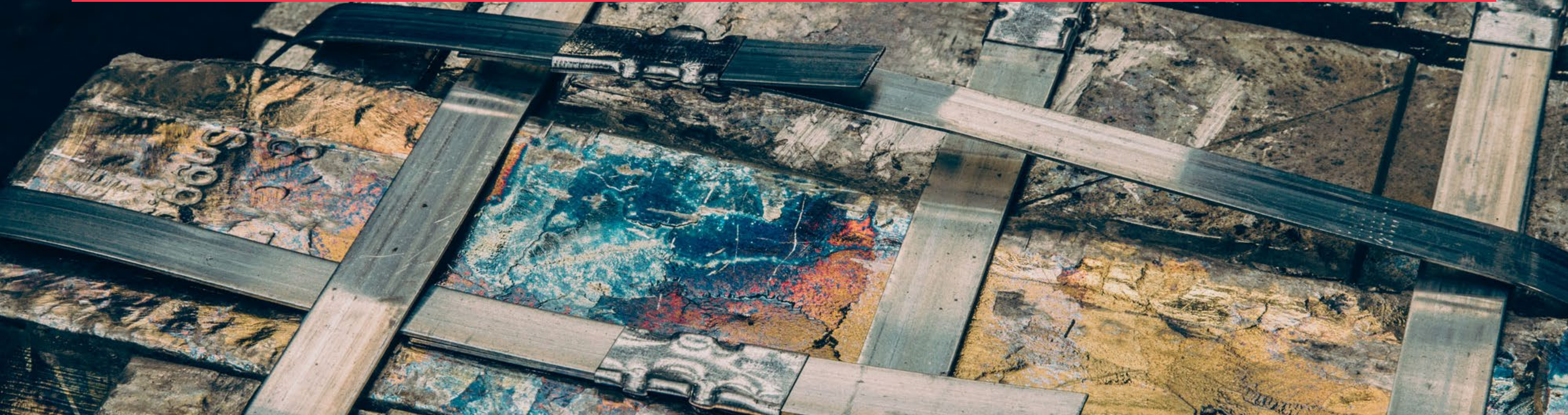
SETTING THE GLOBAL STANDARD



Introduction to hedging workshop

Speakers:

- Edric Koh, Head of Corporate Sales, *LME*
- Jean-Luc Fiorenzoni, Founding Partner, *Commos*

The LME is the leading global venue for metal market participants to manage their price risk

LME is the leading global exchange in all non-ferrous metals

In 2021, the LME traded in excess of

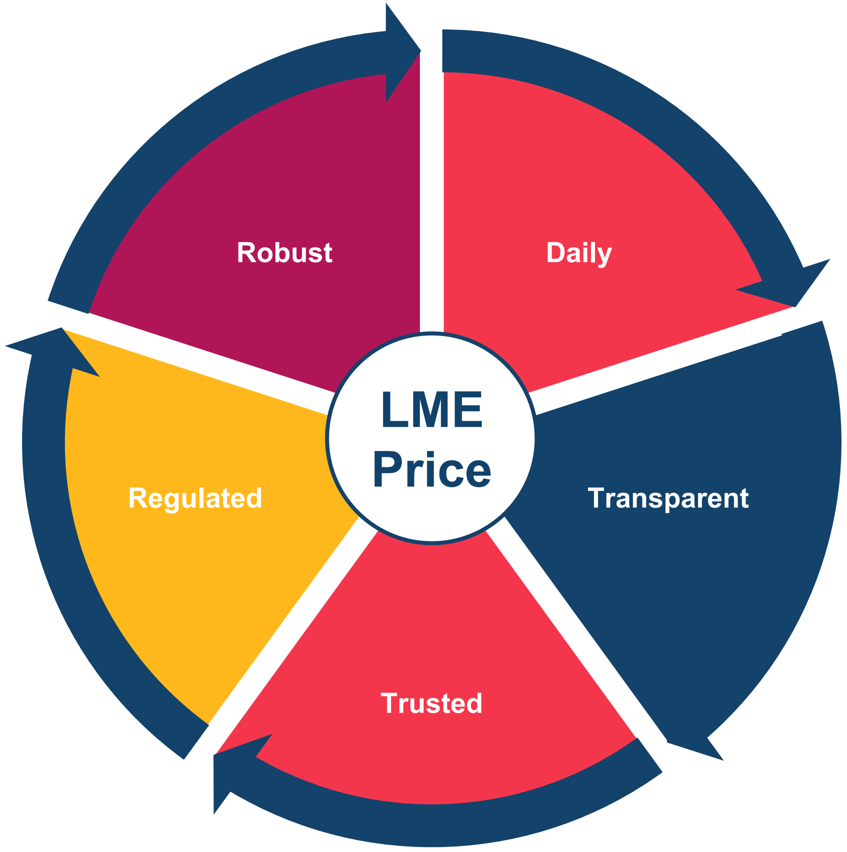
145 million lots

$15.6 trillion notional value

3.3 billion tonnes

This equates to an average daily turnover of 570k lots

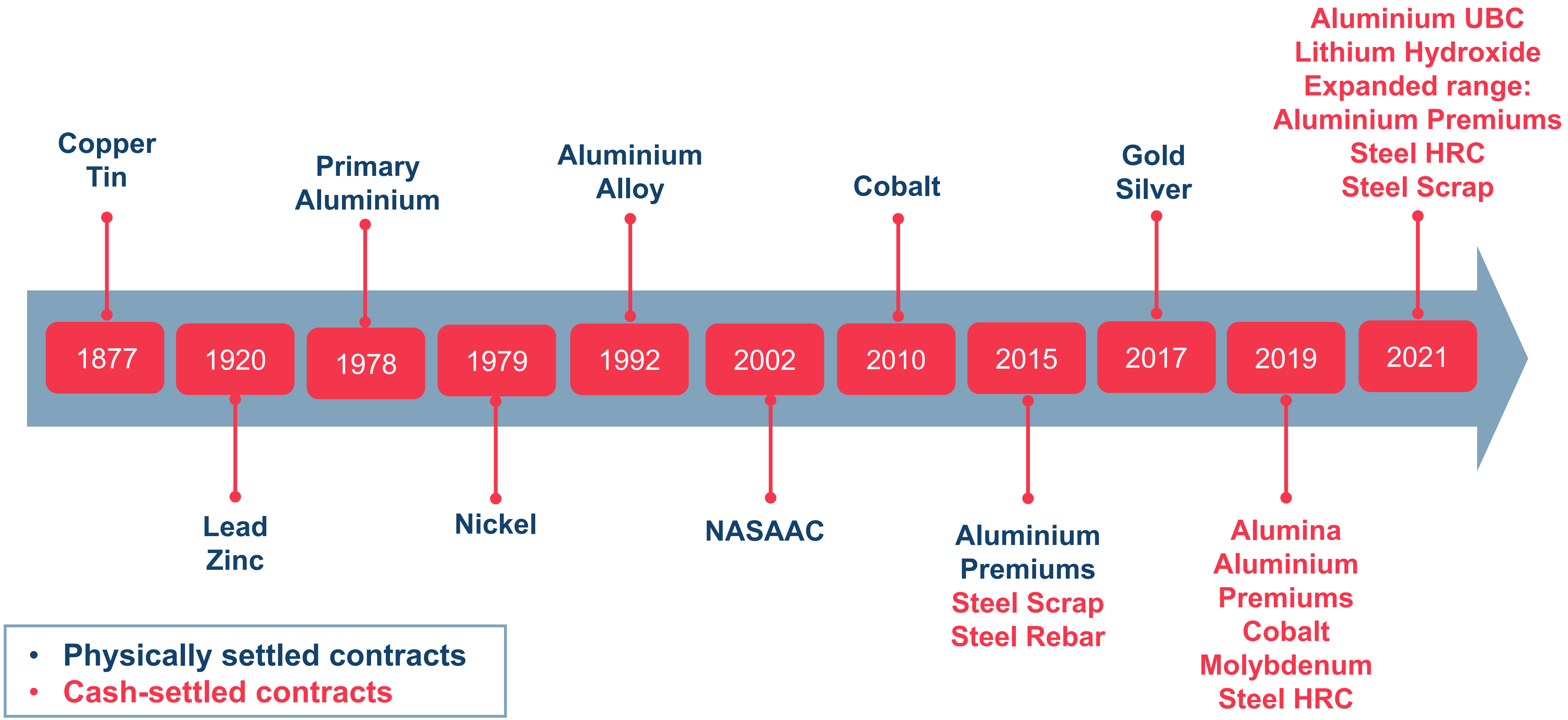
LME provides market leading pricing of futures contracts



London Metal Exchange contract history

More metals have been added to the initial copper and tin, over the past ~140 years.

Each year, the exchange reviews its contracts and looks to launch new products to meet the needs of the industry.



Metal price risk management

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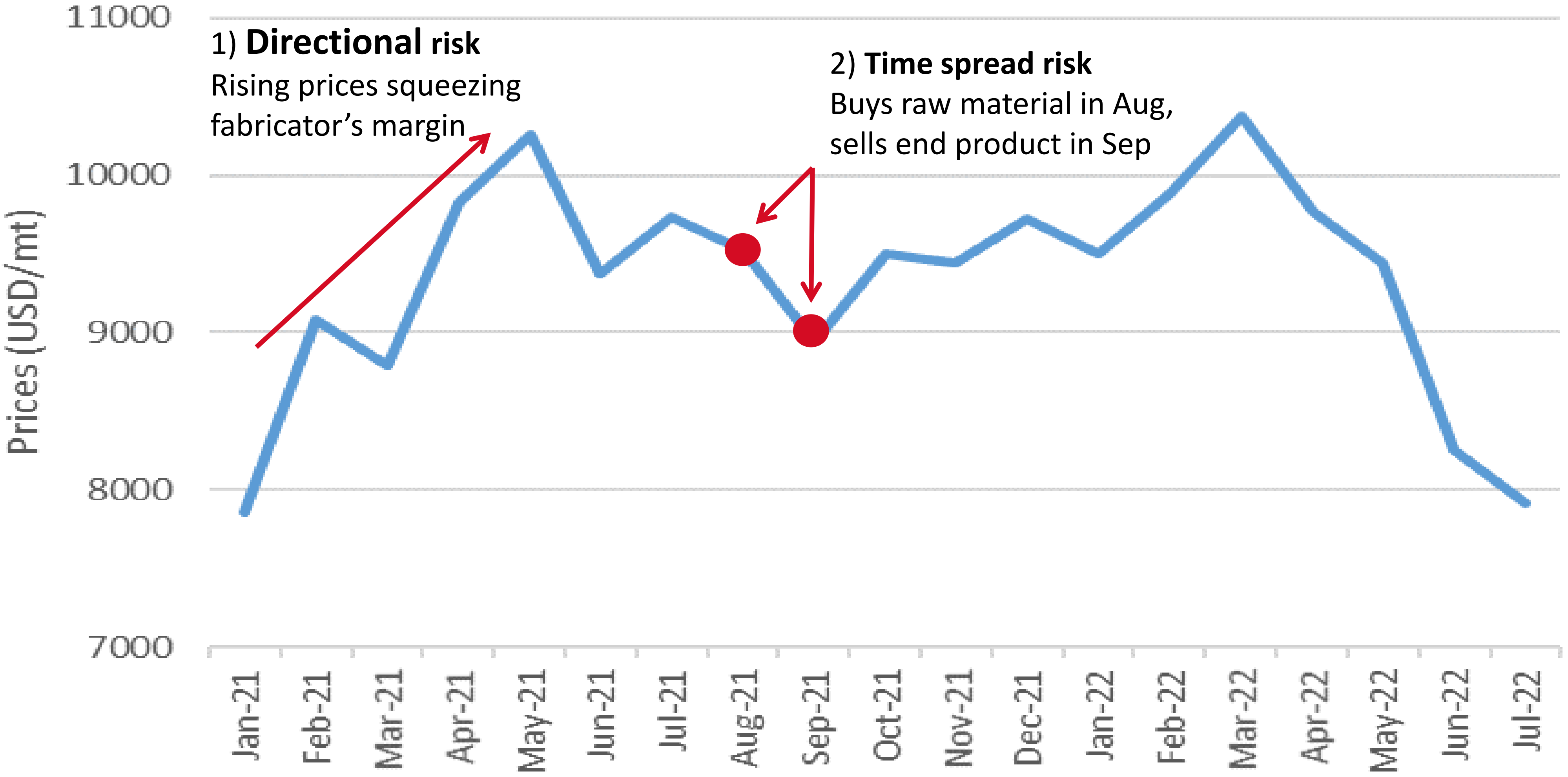
Price risks

LME Copper

Source: Bloomberg, Jan 2021 – Jul 2022



What is hedging?

Hedging

Establishing a position in a commodity futures market (LME) which is equal and opposite to a risk on a physical market.

- Protects against adverse price movements
- Locks in an agreed profit margin

Hedging as a form of ***Insurance*** *(protection)*.

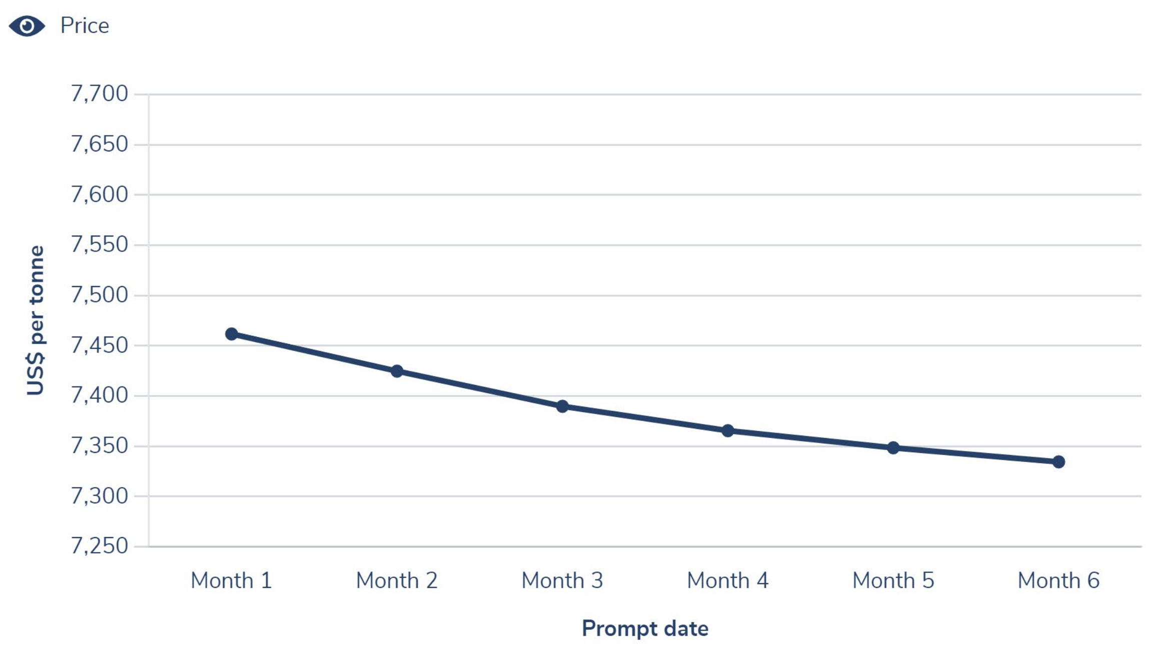
What are futures and how do they work?

A future is an agreement to buy or sell a specified asset (material) of a standard quantity on a fixed date at a price agreed today

LME Copper Closing Prices

CONTRACT	PRICE
3-month	7386.50
Month 1	7461.75
Month 2	7424.75
Month 3	7389.75
Month 4	7365.50
Month 5	7348.50
Month 6	7334.50

LME Copper Closing Prices curve

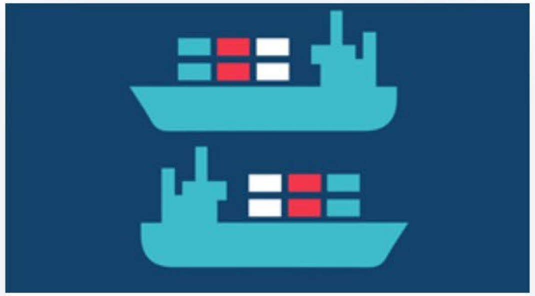


LME education

LME education

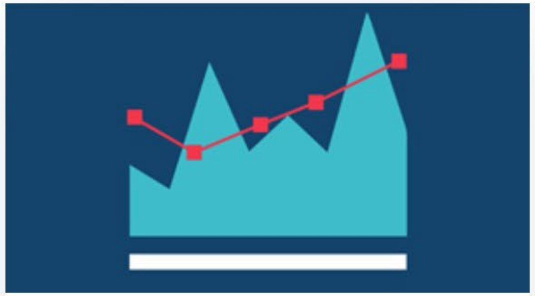
Brochures

Explore our comprehensive library of brochures and factsheets.



Education video series

Watch LME staff answer your most frequently asked questions in this educational video series.



LME insights

Read updates and comment from the LME on specific issues and trends for the metals market.

HedgeTutor Online Education Platform

Learn about trading and price risk management and practise hedging with the online simulator.

Case study

Case study

Commos

in collaboration with

LME
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introduces HedgeTutor's

LME Base Metals Markets,
XCU Copper Cathodes Market and
CSH Cash Settled Markets
subscriptions

an integral eLearning solution to develop a full understanding of price risk management for the LME metals markets

Case study

HedgeTutor LME Subscriptions

Our subscriptions were specifically designed to mimic the trading of physical metals and their financial associated derivatives traded on the LME:

HedgeTutor Subscription	LME Markets covered	
LME Base Metals	**Non-Ferrous** LME Aluminium LME Copper LME Zinc	LME Nickel LME Lead LME Tin
XCU Copper Cathodes	LME Copper	
CSH Cash Settled	**Ferrous** LME Steel Scrap CFR Turkey LME Steel Rebar FOB Turkey LME Steel HRC FOB China LME Steel HRC N.America LME Steel HRC NW Europe LME Steel Scrap CFR India LME Steel Scrap CFR Taiwan	**EV** LME Cobalt LME Molybdenum LME Lithium Hydroxide CIF

Case study

HedgeTutor: Simulations

HedgeTutor's Learning Experience is based **on three pillars:**

Tutorials: solid conceptual base

Case Studies: grounded examples

Simulations: trade the markets

Simulations are the most important aspect of HedgeTutor's learning experience.

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Case study

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Case study

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Case study – **Producer**'s Hedge

- **Scenario:**
  a. Cu cathodes producer with a "natural" physical long position: Its production at a known price
  b. Production commits to selling production to a customer for a future delivery.
  c. Pricing of the sale LME + premium with quotational period ("QP") day prior to delivery
  d. Producer wary that market price may decrease between his sales commitment and its pricing, negatively impacting revenues and margin.

- **Objectives:**
  a. Introduce interaction between physical and futures trading
  b. Show how futures can protect margins
  c. Show how hedging impacts cash flows
  d. Take a quick look at the impact of hedging on PnL / Balance sheet

Case study – **Producer**'s Hedge

- **Assumptions:**

Starting date of simulation:	1 May 19
End date of simulation:	3 June 19
Quantity:	1,000 MT
Copper cathodes production costs – fixed:	$ 6,000 /MT
Delivery date:	30 May 19
Sales Price:	LME + $100 /MT
Quotational Period ("Q/P"):	29 May 19
Futures Credit Line:	None

Simulation

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Case study – **Consumer**’s Hedge

- **Scenario:**
  a. Cu cathodes consumer committed to a sale of finished product (e.g. Cu rod) at fixed price.
  b. Sale and purchases are committed for delivery in the future.
  c. Consumer buys Cu cathodes priced LME + premium with QP day prior to delivery
  d. Consumer is concerned that market may rise between now and the time it fixes the price of the purchase, negatively impacting its cost of production and therefore margin.

- **Objectives:**
  a. Similar to previous case
  b. Hedging is equally applicable wherever your company sits in the value chain

Case study – **Consumer**'s Hedge

- **Assumptions:**

Starting date of simulation:	2 Jan 19
End date of simulation:	1 Feb 19
Quantity:	1,000 MT
Price of Cu cathodes contained in finished product – fixed:	$ 6,500 /MT
Delivery date:	30 Jan 19
Purchase Price:	LME + $100 /MT
Quotational Period ("Q/P"):	29 Jan 19
Futures Credit Line:	None

Simulation

Commos

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