



# स्मार्ट निवेशक जागरुकता कार्यक्रम SMARTs Investor Awareness Program

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[www.mcxindia.com](http://www.mcxindia.com)

: For more information :

वेबसाइट / Website : <https://investor.sebi.gov.in> | ईमेल / Email : [sebi@sebi.gov.in](mailto:sebi@sebi.gov.in)  
सेबी की निःशुल्क दूरभाष सेवा / SEBI Toll Free Helpline Numbers : 1800 22 7575 / 1800 266 7575  
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सेबी : हर निवेशक की ताकत | SEBI : HAR INVESTOR KI TAAQAT

# **Price Discovery and Risk Management into Base metals**

**28 Feb 2025**

Started operations  
in November 2003

World's largest  
Commodity  
Options Exchange  
in 2024\*

Largest  
Commodities  
Exchange of India -  
MCX Market Share  
Year 2024 : 97.98%

Operates under the  
regulatory  
framework of  
Securities and  
Exchange Board of  
India (SEBI)

World's sixth  
largest Commodity  
Derivatives  
Exchange\*

Highest ever Daily  
Turnover (13 Jan  
2025): Rs. 5,03,335  
Crore

\* As per FIA data for 2024

# Commodities Derivatives at MCX

## Futures

Bullion



Industrial Metals



Energy



Agri



Indices

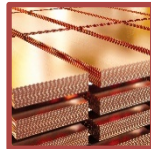


## Options

Bullion



Industrial Metals



Energy



## Participants

Domestic retail participants

Corporate Hedgers

Traders

**Financial Institutions:** Mutual Funds; PMs; Cat III AIFs; FPIs

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## Trade Time

**Metals and Energy Commodities:** 09:00 AM to 11:30/11:55 PM depending U.S. days light savings time

**Domestic Linked Agricultural Commodities:** 09:00 AM to 05:00 PM e.g. Mentha oil

**Internationally Linked Agricultural Commodities:** 09:00 AM to 09:00 PM, e.g. Cotton

# BASE METALS CONTRACTS

# Contract Specifications – Trading Parameters

PARTICULARS	ALUMINIUM	ALUMINIUM MINI	COPPER	ZINC	ZINC MINI	NICKEL	LEAD	LEAD MINI
TRADING UNIT	5 MT	1 MT	2.5 MT(2500 Kgs)	5 MT	1 MT	1.5 MT (1500 Kgs)	5 MT	1 MT
QUOTATION VALUE	1 Kg							
PRICE QUOTE	Ex-Warehouse Raipur district (excl. only GST)		Ex - Warehouse Thane district (excl. only GST)				Ex - Warehouse Chennai district (excl. only GST)	
DELIVERY UNIT	5 MT +/- 10% tolerance	1 MT +/- 10% tolerance	2.5MT +/- 10% tolerance	5 MT +/- 10% tolerance	1 MT +/- 10% tolerance	1.5 MT +/- 10% tolerance	5 MT +/- 10% tolerance	1 MT +/- 10% tolerance
DELIVERABLE SHAPE	Ingot, Sows and T-bars	Ingot	Cathode	Ingot		Cathode	Ingot	
PRIMARY DELIVERY CENTER	Raipur district		Thane district				Chennai district	
ADDITIONAL DELIVERY CENTER	1.Thane, Maharashtra 2.Palwal, Haryana (NCR) 3.Chennai, Tamil Nadu 4.Kolkata, West Bengal		1.Palwal, Haryana (NCR) 2.Chennai, Tamil Nadu 3.Kolkata, West Bengal				1.Thane, Maharashtra 2.Palwal, Haryana (NCR) 3.Kolkata, West Bengal	
INITIAL MARGIN + ELM	Higher of Min. 8% or based on SPAN + min. 1% ELM		Higher of Min. 10% or based on SPAN + min. 1% ELM				Higher of Min. 8% or based on SPAN + min. 1% ELM	

# MCX PRICE COMPONENTS & SPOT POLLING



# Components used for price estimates

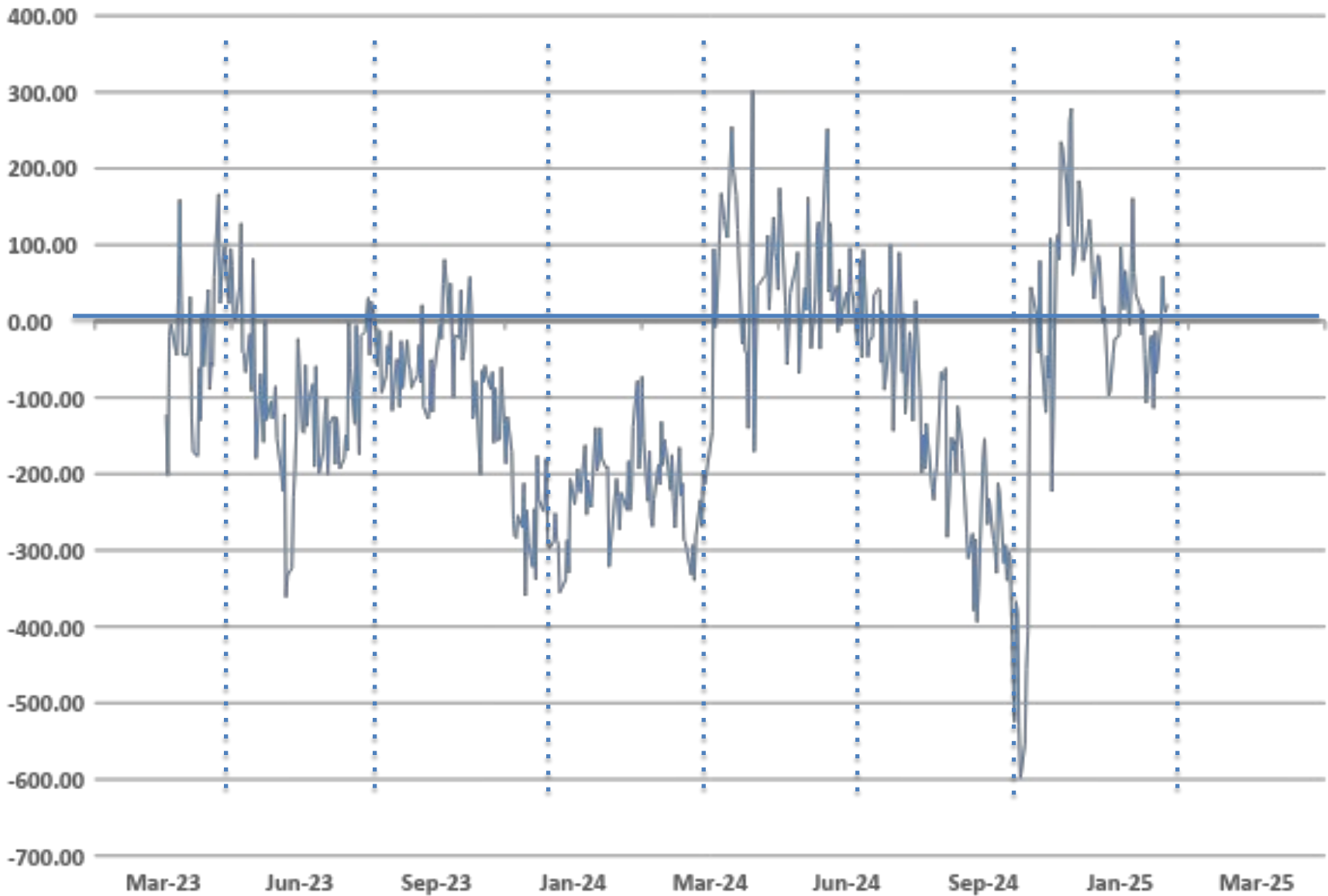
Sequence	Particulars	Aluminium	Copper	Lead	Nickel	Zinc
A	LME Live Prices (US\$ / MT)	2,400.00	9,000.00	2,000.00	16,200.00	2,800.00
B	Premium (US\$ / MT)	50	55	120	145	80
C	RBI Ref. Rate	83.91	83.91	83.91	83.91	83.91
$D = (A+B)*C$	CIF Price (INR / Kg)	205.57	759.80	177.88	1371.50	241.66
E	Basic Customs Duty + Surcharge (%)	0.08	0.06	0.06	-	0.06
$F = D * E$	Customs Duty Value	16.44	45.58	10.67	-	14.49
$G = D + F$	Landed Cost to Indian Port (INR / Kg)	222.02	805.39	188.56	1371.50	256.16
H	Customs clearing cost / Transportation / Handling etc (Approx.)	0.01	0.01	0.01	0.01	0.01
$I = H * G$	Clearing & Transportation Costs (INR / Kg)	2.22	8.05	1.88	13.71	2.56
$J = G + I$	Final Landed Cost to Warehouse (INR/Kg)	224.24	813.44	190.44	1385.22	258.72
	GST (For deliverable lots only)	18%				

## Notes :

- Components highlighted with green color are variable in nature, which change on daily basis.
- MCX calculated premium considers all the factors like LME cash settlement price, exchange rate. This premium can be looked upon as an ultimate number before making any major decision.

# MCX Copper Premium/Discount

MCX Copper Premium/Discount over LME (USD/MT)



## Quarterly Average

Period FY 2023-24	Pre / Dis on MCX over LME (INR/Kg)	Pre/Dis on MCX over LME (US\$/MT)
Q1	-5	-60.9
Q2	-7.26	-88.1
Q3	-13	-156
Q4	-18.1	-217
Period FY 2024-25	Pre / Dis on MCX over LME (INR/Kg)	Pre / Dis on MCX over LME (US\$/MT)
Q1	4.65	55.77
Q2	-7.95	-94.9
Q3	-6.48	-77.3

# Factors Affecting Prices

Supply and Demand

Cost of Production

Economic Growth

Geopolitical events

Natural disasters

Speculative trading

Government policies

Final Price  
on MCX



- MCX has been successfully running delivery-based futures contracts in Base Metals which include Nickel, Zinc, Aluminium, Lead and Copper. These contracts got converted into delivery-based settlement mode from March 2019 onwards in a phased manner.
- GST implementation facilitated the delivery-based settlement.
- A glimpse of performance:

METAL	AVERAGE TURNOVER (IN CR)			AVERAGE VOLUME (IN MT'S)			AVERAGE OPEN INTEREST (IN MT'S)		
	FY 2022-23	FY 2023-24	FY 2024-25*	FY 2022-23	FY 2023-24	FY 2024-25*	FY 2022-23	FY 2023-24	FY 2024-25*
ALUMINIUM	671	245	378	31,395	12,059	16,117	21,638	22,852	23,581
COPPER	2,046	1,021	1,966	29,066	14,041	23,711	14,089	15,973	25,154
LEAD	116	63	84	6,352	3,420	4579	4,114	3,808	4,891
NICKEL	1	0	0	4	0	0	35	0	0
ZINC	848	562	801	29,341	25,305	29,888	12,177	27,013	19,677

\*FY 2024-25 from April 2024 to January 2025

- Reference spot prices is for better pricing decisions by participants and used for determining delivery price

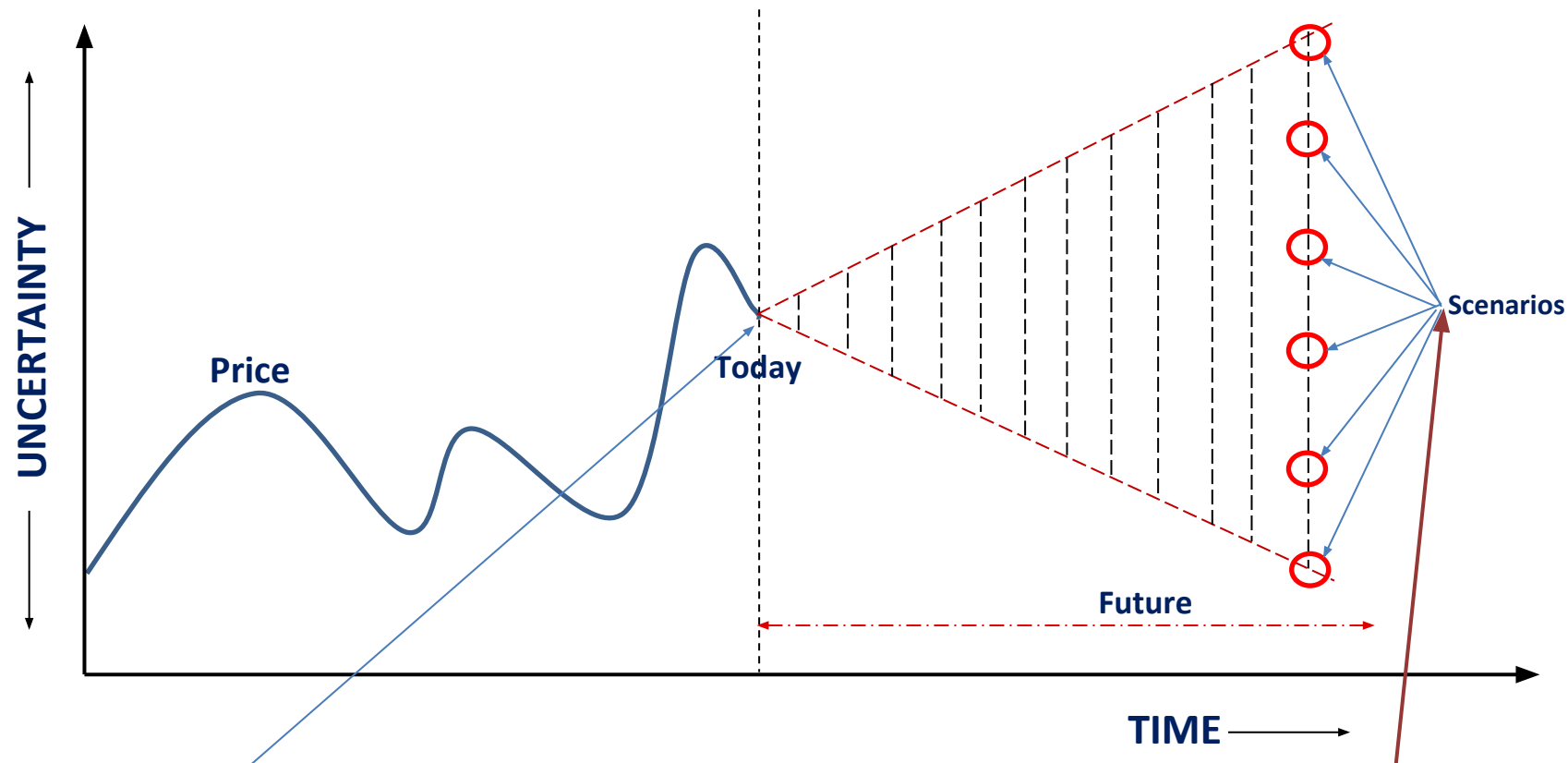
## **SPOT PRICE POLLING AT MCXCCL**

- Spot market prices are polled once a day & single reference price\* disseminated to the market at ~ 4.30pm on TWS and MCX & MCXCCL website. (\*arrived based on Trim-Mean method)
- Final Settlement Price (FSP) of all the deliverable contracts is an average of 3 days evening spot price
- FSP of respective month contract will be used for billing and GST calculation
- On expiry day, trading will be available only till 5:00 p.m. for expiring contract.
- Spot Prices available at -
  - <https://www.mcxindia.com/market-data/spot-market-price> &
  - <https://www.mcxccl.com/spot/spot-market-price>



**Your opinion  
matters for  
price, Please  
enroll for Spot  
Price Polling !!**

# PRICE RISK MANAGEMENT

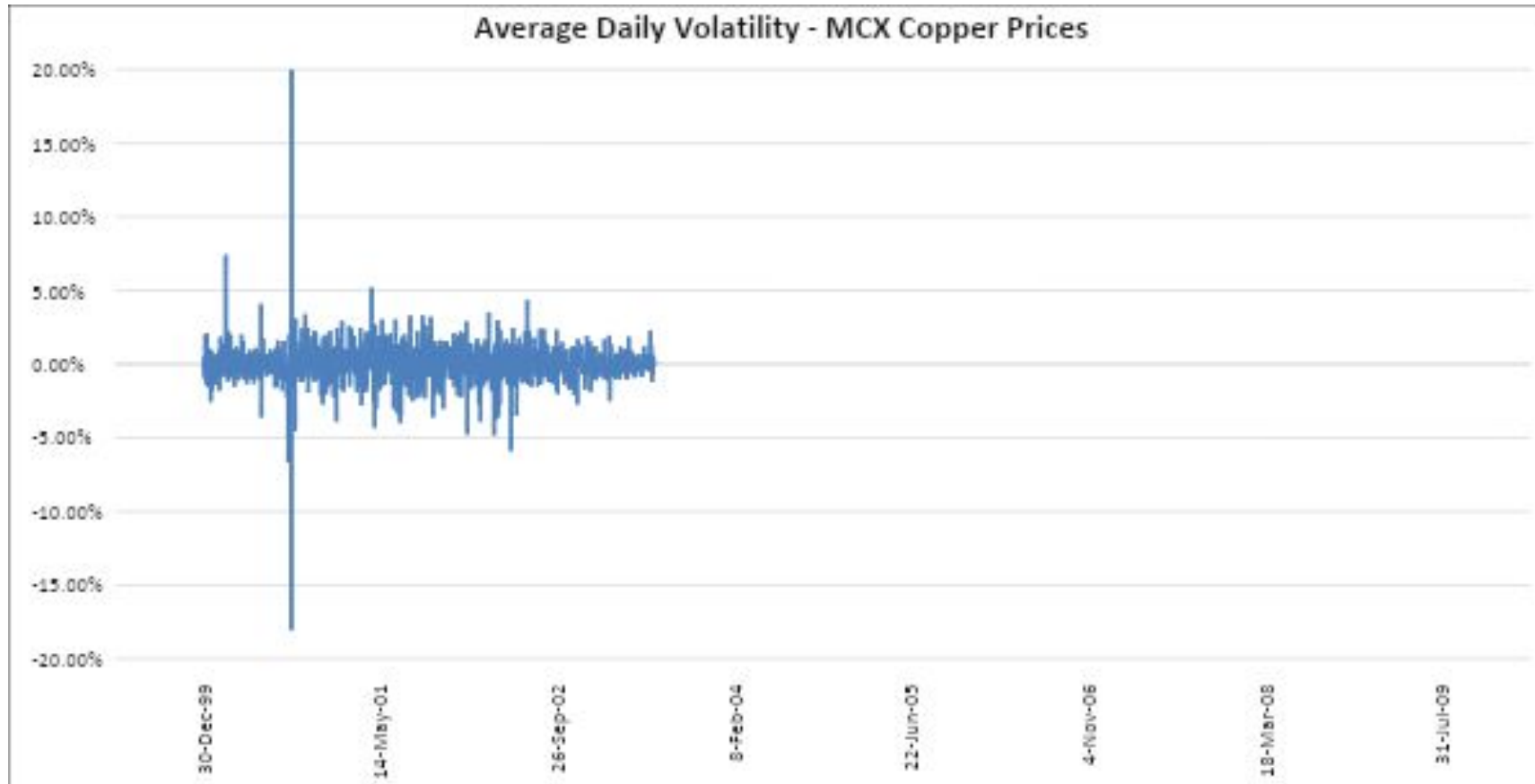


Producer / Manufacturer or any value chain partner / commodity stakeholder at “Today” is not aware what might happen in Future.

There could be favourable / unfavourable scenarios in the time unknown (i.e. Future), hence it is imperative to Hedge “Today” and be locked-in at a desired / current price level.



# Volatility Risk (Copper)

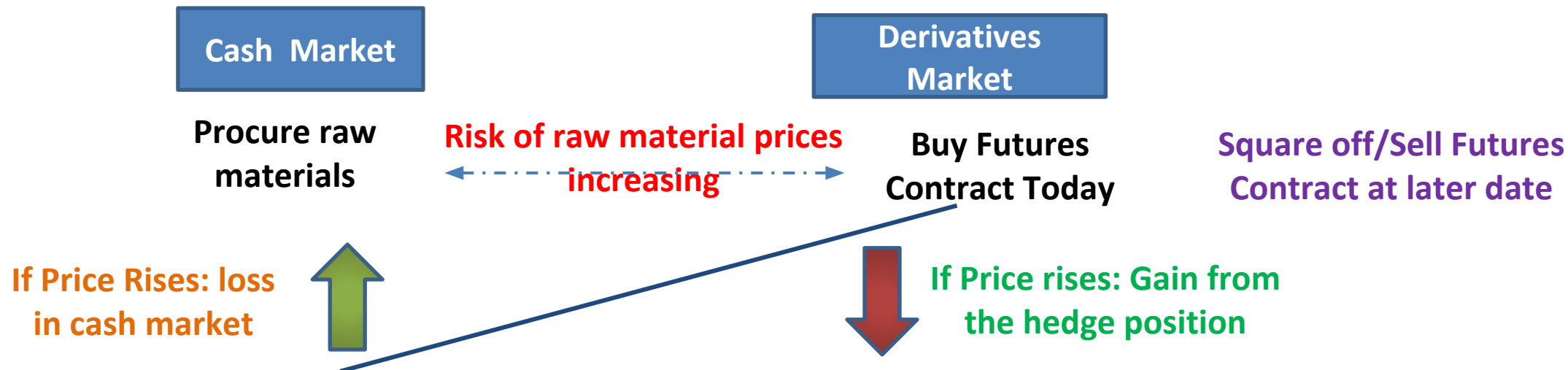


MCX Copper	
F.Y.	ANNUALIZED VOLATILITY
2019-20	25.47%
2020-21	21.09%
2021-22	21.10%
2022-23	20.22%
<b>2023-24</b>	<b>12.07%</b>

- Copper is witnessing annualized volatility of **12.07%** in FY 23-24, which means a firm in Copper business with annual turnover of **INR 100 Crores** is exposed to price risk of INR **12.07 Crores** in FY 2023-24.
- Does one have such profit margins to contain **12.07 %** fluctuations in the raw material costing ?



## Long Hedge: Risk Management for purchasers



## Short Hedge: Risk Management for producers



# Copper: Hedging Against Domestic Sales

ABC Company imports 10 MT Copper to conduct routine production, finished goods are sold in the physical market. It has put forward following facts to devise hedging strategy **to hedge raw material price realisations** -

- Purchases 10 MT raw material and finished goods get ready in 4 weeks.
- Finished goods sold at ruling price - Hence, **difficult to predict the sales price 4 weeks ahead.**

DATE	COPPER FUTURES	PHYSICAL MARKET
1 <sup>st</sup> February	SELL	Buy Raw Material from physical market @Rs. 860/Kg
28 <sup>th</sup> February	BUY	Finished goods sold at ruling price

DATE	PHYSICAL		FUTURES		CASH FLOW FROM FUTURES	NET REALIZED SALE VALUE
	ACTION	PRICE	ACTION	PRICE		
1 <sup>st</sup> February	Buy	860	Sell	861		
28 <sup>th</sup> February	Sell	 853	Buy	854	7	860, i.e. (853+7)
28 <sup>th</sup> February	Sell	 867	Buy	868	7	860, i.e. (867-7)

Hence, the lock-in price for Copper will be Rs. 860/Kg after Hedging.

# Copper : Hedging on routine basis

ABC Systems has order from XYZ wire for providing copper wires on weekly basis for next 4 weeks at a fix price. For manufacturing the wires, ABC Systems requires 10 MT of Copper as raw material on weekly basis. The total quantity of Copper required in production of wires is 50MT.

- To buy first lot of 10 MT from Spot market on 1-Feb at the prevailing price of Rs 860/Kg.
    - Hence, no price change for the first lot.
  - To buy from the physical market or import weekly 10 MT at the prevailing price
  - To buy remaining 40 MT in subsequent weeks in same lot size at ruling prices.
- Hence, hedges the total of 40 MT on MCX by buying @ Rs 860/KG, to mitigate price risk.

DATE	PHYSICAL MARKET	COPPER FUTURES	PROFIT / (LOSS) IN FUTURES	NET PURCHASE PRICE
1-February	Buy 10 MT @ 860	Buy 40 MT @ 861		860
8-February	Buy ↓ 10 MT @ 857	Sell 10 MT @ 858	3	860 (857 + 3)
15-February	Buy ↑ 10 MT @ 864	Sell 10 MT @ 865	4	860 (864 - 4)
22-February	Buy ↓ 10 MT @ 855	Sell 10 MT @ 856	5	860 (855 + 5)
28-February	Buy ↑ 10 MT @ 866	Sell 10 MT @ 867	6	860 (866 - 6)

Hence, the lock-in price for Copper will be Rs. 860/Kg after Hedging thus ensuring that margins are intact.

# MCX METALS DELIVERY SOLUTIONS



## COVID-19 lockdown

*Traders able to access market prices seamlessly and exchange deliveries remained uninterrupted*



## Geopolitical Disruptions

*Traders using exchange-traded platforms less likely to be affected*

# Base Metals Deliveries Via MCXCCL

Commodity	Aluminium	Lead	Zinc	Copper	Nickel	Month-wise Total Delivery
Jan-24	4,731	1,461	1,396	2,802	0	10,390
Feb-24	2,547	1,586	1,957	2,565	0	8,655
Mar-24	2,829	1516	4,173	1,653	0	10,171
Apr-24	838	615	2,715	2,518	0	6,686
May-24	1,293	235	1,447	985	0	3,960
Jun-24	1,004	65	1,012	498	0	2,579
Jul-24	1,252	60	1,398	3073	0	5,783
Aug-24	2,316	405	1,207	5255	0	9,183
Sep-24	2,090	1062	1,430	4260	0	8,842
Oct-24	2,772	720	349	2692.5	0	7,533.5
Nov-24	0	1060	576	252.5	0	1,888.5
Dec-24	0	1840	1660	1032.5	0	4532.5
Jan-25	1905	1560	2907	890	0	7262
<b>Commodity-wise Total</b>	<b>23,577</b>	<b>12,185</b>	<b>22,227</b>	<b>28,474</b>	<b>0</b>	<b>86,464</b>

( figures in MTs )

Total Base Metals Deliveries Via MCXCCL March 2019 – Jan 2025 = **4,52,411.50 MTs**

**Staggered Delivery Tender period are the last 3 working days of the expiry month illustrated below**

JANUARY						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

MARCH						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

FEBRUARY						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

APRIL						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

- During the staggered tender delivery period, you should rollover to the next month contract to continue your position in the base metals futures.
- Link for the Settlement Calendar for the respective month-  
<https://www.mcxindia.com/docs/default-source/market-operations/delivery/settlement-calendar/settlementschedule.pdf?sfvrsn=2>

# Settlement Timeline for Staggered Tender Delivery Period

Delivery Mode: via ComRIS  
Settlement Type: T+1

Delivery Intention by 5:00 pm For each day during tender period	26 <sup>th</sup> February (E-2) Wednesday*	27 <sup>th</sup> February (E-1) Thursday*	28 <sup>th</sup> February (E) Friday*
Delivery pay-in of commodities ( T ) / (T+1) at expiry	26 <sup>th</sup> February (5:00 PM)	27 <sup>th</sup> February (5:00 PM)	28 <sup>th</sup> February (5:00 PM)
Pay-in of funds (T + 1)	27 <sup>th</sup> February (2:00 PM)	28 <sup>th</sup> February (2:00 PM)	3 <sup>rd</sup> March (2:00 PM)
Pay-out of Funds/Delivery of commodities (T + 1)	27 <sup>th</sup> February (4:00 PM)	28 <sup>th</sup> February (4:00 PM)	3 <sup>rd</sup> March (4:00 PM)
Charges for weight differential, premium/discount, settlement dues, package, transportation & aging. (Dr/Cr) (T + 2)	28 <sup>th</sup> February	3 <sup>rd</sup> March	4 <sup>th</sup> March
Penalty for non-delivery (Dr/Cr) (T + 4)	4 <sup>th</sup> March	5 <sup>th</sup> March	6 <sup>th</sup> March

\*8.34% Incremental margin for last 3 trading days (including expiry day) of the contract on all outstanding positions



**SELLER DEFAULT:** Seller's failure to fulfill the delivery obligation

**Penalty - 3% of Settlement Price + Replacement cost**

Replacement cost = difference between settlement price and higher of the last spot prices on the commodity pay-out date and the following day, if the spot price so arrived is higher than Settlement Price, else this component will be zero.

**NORMS FOR APPORTIONMENT OF PENALTY :**

- At least **1.75% of Settlement Price** deposited in MCXCCL Settlement Guarantee Fund (SGF)
- Up to **0.25% of Settlement Price** retained towards administration expenses
- **1% of Settlement Price + replacement cost** paid to such aggrieved buyer
- MCXCCL shall also take **suitable penal / disciplinary action** against any intentional / willful delivery default.

**BUYER DEFAULT:** NOT permitted

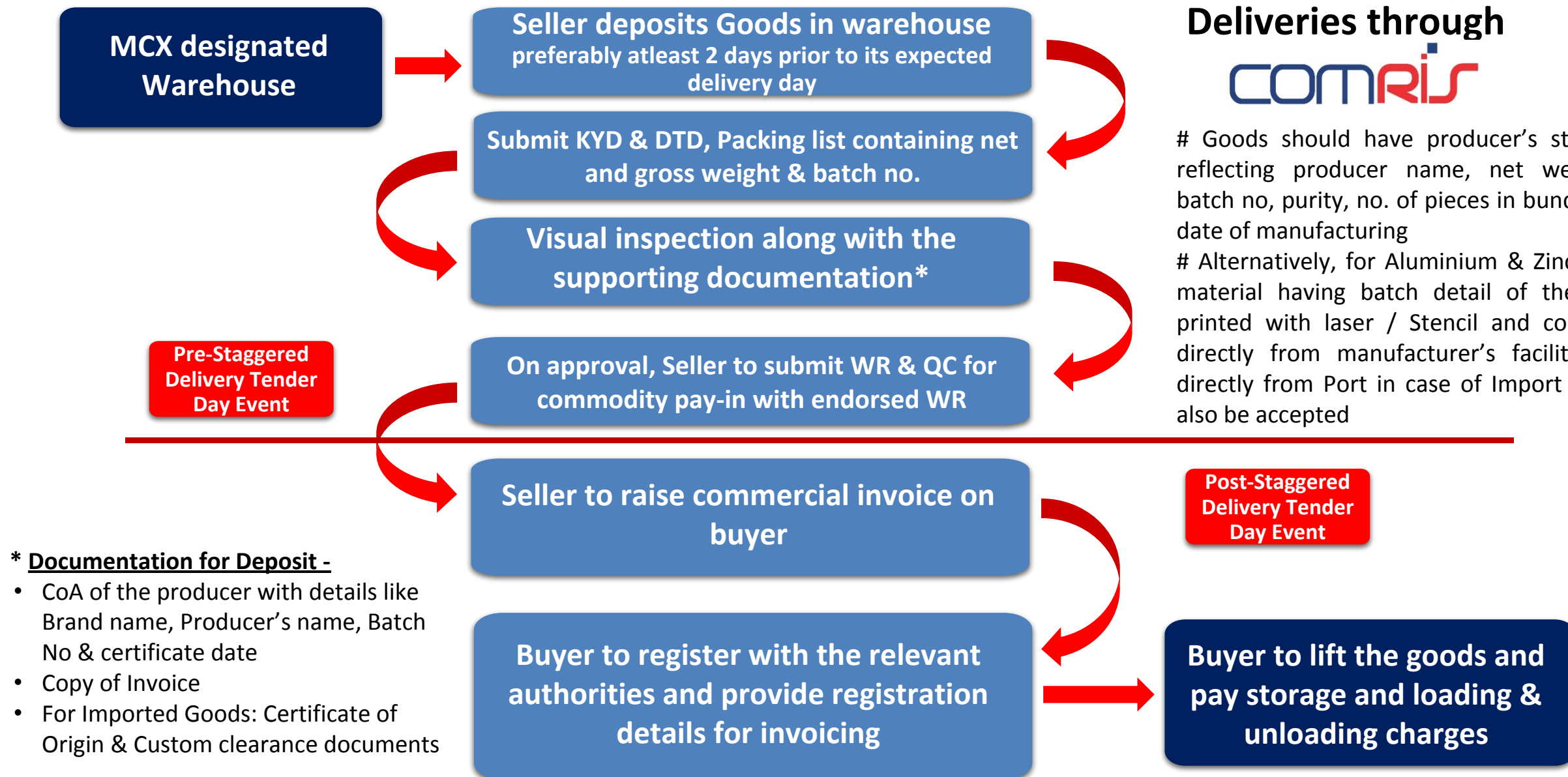
# Process For Deposits In Warehouse

## Deliveries through



# Goods should have producer's sticker reflecting producer name, net weight, batch no, purity, no. of pieces in bundle & date of manufacturing

# Alternatively, for Aluminium & Zinc the material having batch detail of the lot printed with laser / Stencil and coming directly from manufacturer's facility or directly from Port in case of Import shall also be accepted



# Quality Specification of Metals Traded On MCX



**Copper**

Grade A Copper Cathodes



**Lead**

Lead Ingots with minimum purity of 99.98%.



**Nickel**

Primary Nickel Cathodes (Cut or Uncut / Full Plate) with minimum purity of 99.80%.

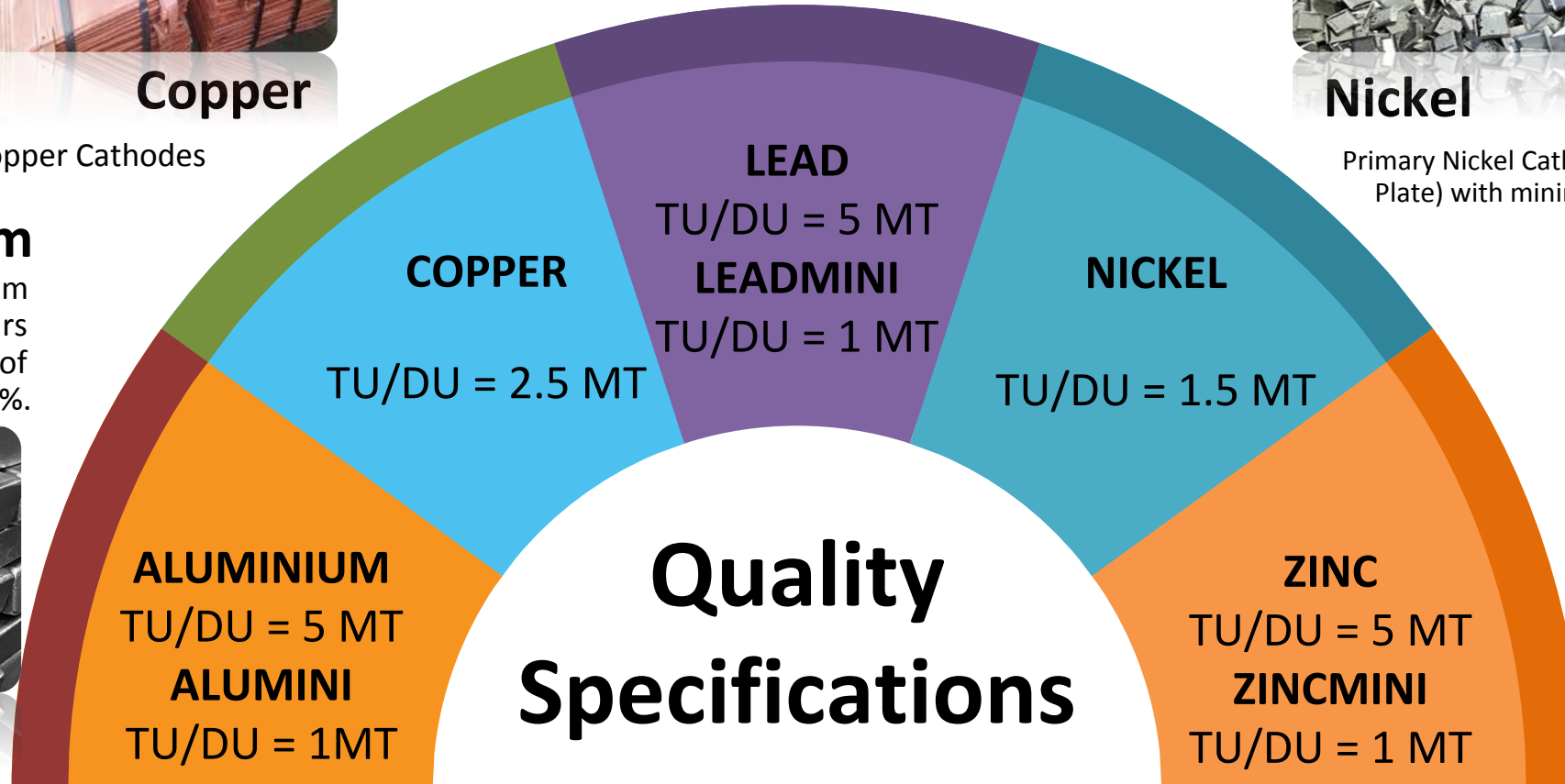
## Aluminium

Primary Aluminium Ingots, Sows and T-Bars with minimum purity of 99.70%.



## Zinc

Primary Special High-Grade Zinc with minimum purity of 99.995%.



# Storage Charges

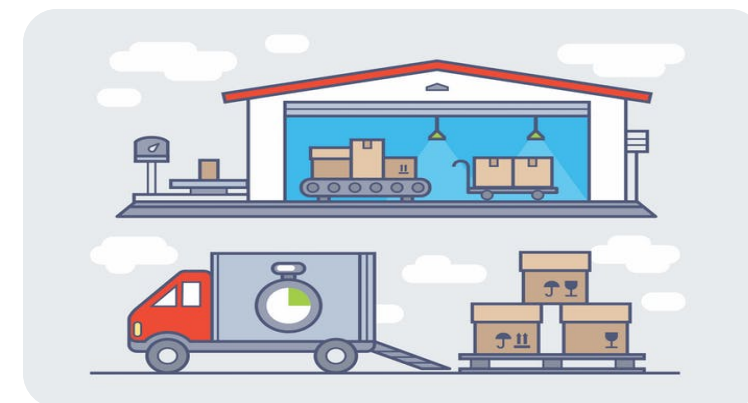
COMMODITY	Zinc, Nickel, Copper	Lead	Aluminium
PRIMARY DELIVERY CENTER	Bhiwandi, Panvel & Uran (Maharashtra)	Chennai	Raipur

Deposit Date	Applicable Storage Charges for the respective commodity*
1st to 15th of month of deposit	Rs.30/MT/Day
16th -25th of month of deposit	Rs.35/MT/Day
26th-30th /31st of month of deposit	Rs.40/MT/Day
Subsequent month onwards	Rs.35/MT/Day

*\* 1 day billing Cycle (GST extra at the applicable rate)*

## HANDLING CHARGES

In case of use of Forklift Only (Rs. Per MT)	Rs.175/-
In case of use of Forklift & Hydra (Rs. Per MT)	Rs.250/-



- 8.34% Incremental margin for last 3 trading days (including expiry day) of the contract on all outstanding positions in addition to the Initial, Special and/ or any other additional margin, if any.
- Intentions received from the sellers and buyers will be broadcasted on TWS by the MCX/MCXCCCL by 5.30 p.m. on the respective tender days.
- Sellers are exempted from payment of all types of margins, if goods are tendered as early pay-in with all the documentary evidences. However, MCXCCCL shall continue to collect mark to market margins from Sellers.
- On each Tender day, intentions received during the day will be allocated to buyers having open long position as per random allocation methodology.
- 100% Pay-in on the settlement day shall be separate from the margin paid earlier.
- Delivery Allocation Rate  
**Settlement/Closing price** on the respective tender days except on the expiry date.  
On expiry date, the delivery order rate shall be **the Due Date rate (DDR)** and not the closing price.
- Link for the Settlement Calendar for the respective month-  
<https://www.mcxindia.com/docs/default-source/market-operations/delivery/settlement-calendar/settlementschedule.pdf?sfvrsn=2>

- **SPOT MARKET PRICES**

<https://www.mcxindia.com/market-data/spot-market-price> &

<https://www.mcxcl.com/spot/spot-market-price>

- **WAREHOUSING CHARGES**

<https://www.mcxcl.com/warehousing-logistics/Overview>

- **WAREHOUSING & INVENTORY DETAILS**

<https://www.mcxcl.com/warehousing-logistics/stock-position>

- **MCX & LME – REGISTERED BRAND DETAILS**

<https://www.mcxcl.com/warehousing-logistics/mcx-lme-approved-brands>



1. The exchange has issued a [MCX Circular No.: MCX/MCXCCL/658/2024 October 1, 2024](#) for Notification by the Government of India about Quality Control Order, 2023. The Quality Control Orders (QCOs) notified by The Ministry of Mines on August 31, 2023 for Aluminium and Copper has come into force on **December 1, 2024**.





**THANK YOU**

**Multi Commodity Exchange of India Ltd.**

Exchange Square, Suren Road, Chakala, Andheri East, Mumbai-400093

Tel. No. 022 67318888 | [www.mcxindia.com](http://www.mcxindia.com)

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