MCX
METAL & ENERGY
Trade with Trust

BASE METALS :

Laying the foundation of India's economic growth



Disclaimer:

This publication is being made available for the limited purpose of creating awareness about base metals and related markets and is provided on 'as available' basis. It contains information sourced from third party sources/ market sources on best effort basis. The user of the information assumes the entire risk of the use of information provided in this publication at their sole discretion. Every effort has been made to ensure accuracy and reliability of the information to the best of endeavours, however MCX or any of its employees, representatives and affiliates make no warranty or representation as to the accuracy, completeness or reliability of any of the information contained herein and expressly disclaims any and all liability whatsoever to any person for any damage or loss of any nature arising out of use or as a result of reliance, on the information, any error, misrepresentations or omissions of any of the information provided herein.

Notwithstanding the content carried in any part of this publication, MCX does not provide or endorse any forward-looking statement or a price view. The information contained in this document is not intended to provide any professional counsel or investment advice and should not be used and/or considered as such.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means - electronic, photocopying, recording, scanning, or otherwise - without explicit prior permission of MCX.

©MCX 2026. All rights reserved.

Contents . . .

1. The Metal Age Continues: From Ancient Civilizations to Modern Era 01
2. Financialising Industry: Derivatives in Base Metals 04
3. The Multiplier Effect: Economic Benefits of Base Metals Derivatives 07
4. Beyond the Vault: Base Metal Derivatives as an Investment Avenue 09
5. The Financial Shield: Risk Management with Base Metals Derivatives 11
6. Unlocking Full Potential: Charting the Path Forward 13
7. The Road Ahead: Conclusion 16

Executive Summary

Base Metals — the copper in power cables, the aluminium in buildings, the zinc protecting infrastructure — are universal and essential intermediaries in India's economic development, and the derivatives market sits at the financial heart of this growth story. Two decades after MCX first listed Copper and Nickel futures in 2004, its Rupee-denominated prices have become the reference point that the industrial value chain — smelters, fabricators, traders and manufacturers — uses to price physical transactions, hedge exposure, and plan production, quietly substituting for the international quotes they once had to rely on.

This Rupee-denominated, Exchange-discovered price — increasingly referred to in industry parlance as "MCX Price" — is emerging as reference point for Aluminium, Copper, Lead, Zinc and Nickel across the Indian value chain. Unlike some international reference prices, which reflect international fundamentals and currency movements, MCX Prices captures Indian demand-supply dynamics, duty structures and logistics costs, making them more relevant benchmarks for domestic contracts, tenders and internal pricing formulas used by smelters, fabricators and traders alike.

The numbers tell their own story. Liquidity, measured by Open Interest in derivatives of Copper and Zinc, is about 2.5 times the exposure of these metals' stakeholders, on an average basis. Close to 6 lakh tonnes of metals have moved through Exchange-accredited warehouses since the metal contracts became delivery-based in 2019, earning MCX its reputation as India's 'Delivery of Last Resort' — a status that held even through the pandemic lockdowns, when physical markets froze but the Exchange kept settling trades without interruption. Because these contracts are priced in Rupees yet track global fundamentals, companies hedging on MCX rather than abroad save an estimated 1.5–2% of contract value in currency conversion and clearing costs.

Yet this is still a market operating well below its ceiling. The report's central argument is that closing that gap needs deliberate policy choices, not just organic growth: anchoring customs duties, export incentives and government procurement to MCX's own Rupee prices instead of international benchmarks; opening the door wider for institutional capital — Foreign Portfolio Investors, banks, insurers and pension funds are all still locked out of a market that Mutual Funds and AIFs have been allowed into; fixing the GST fragmentation that currently penalises cross-state delivery; and building out warehouse-receipt financing so metal sitting in an accredited warehouse can also work as collateral. These actions, once implemented, would let India's physical market heft finally translate into pricing influence to match.

For investors, the case is more straightforward: there is simply no other convenient way to own aluminium, copper, lead, nickel or zinc as a financial asset in India — which makes futures and options the only real gateway to invest in the metals. Their low correlation with equities and a mildly negative one with the US Dollar Index give them a genuine diversification role, and the tiered contract structure — full-size and mini variants, futures and options — means that role is accessible to a large corporate treasury, a small SME hedger or an individual investor alike.





BASE METALS: LAYING THE FOUNDATION OF INDIA'S ECONOMIC GROWTH

01. The Metal Age Continues: From Ancient Civilizations to Modern Era

Metals have always been more than just raw materials; they are milestones of human progress. Entire eras of history are named after them - the 'Bronze Age' and the 'Iron Age' marking how the mastery of metals shaped societies, economies and even warfare. In fact, the discovery and controlled use of copper more than 5,000 years ago allowed early civilizations to forge tools, weapons and ornaments that elevated them from agrarian communities to urbanized powers.

Fast forward to today, and the same logic holds. Base metals remain the invisible foundation of economic development. Aluminium, once considered "precious" enough to crown Napoleon's banquet cutlery, is now the backbone of modern infrastructure, packaging and transport. Copper, dubbed "the metal with a PhD in economics," still mirrors global growth because of its indispensability in power, wiring and electronics. Zinc, historically prized by Indian craftsmen in brass-making, now finds its biggest use in galvanizing steel to withstand time and weather. Lead, used by Romans in water pipes (with questionable health effects), continues to serve a far more responsible role today powering batteries that drive both conventional vehicles and the renewable energy transition. From forging civilizations in the Bronze Age to powering electric vehicles today, base metals have always been the silent currency of progress.

For India, these metals are not just commodities; they are strategic enablers. Whether it is copper for solar panels and Electric Vehicles (Evs), aluminium for lightweight vehicles and smart cities, zinc for highways and

construction or lead for battery storage, base metals sit at the intersection of industrial expansion and sustainable development. Their story has moved from ancient utility to modern indispensability and now, with the rise of commodity derivatives, they are also evolving into financial instruments that allow industries to manage price risks while ensuring uninterrupted growth.

PHYSICAL MARKET FACTSHEETS OF BASE METALS

Each element in the Base Metals family has its own idiosyncrasies, usage and economic dynamics, which lend the fundamentals that move the prices of these commodities:

- **Aluminium: The Lightweight Workhorse**

Aluminium is prized for its strength-to-weight ratio, corrosion resistance and recyclability, making it the metal of choice for industries that demand durability without excess weight. Its applications range from packaging (cans, foils) and construction (windows, roofing, structural components) to automobiles and aerospace, where lighter frames improve fuel efficiency. In recent years, aluminium's role in renewable energy has expanded - solar panel frames, wind turbine parts and electric vehicle bodies all lean heavily on this versatile metal. With recycling requiring only a fraction of the energy of primary production, aluminium also stands out as a sustainability enabler.

- **Copper: The Conductor of Growth**

Copper is the backbone of electrification and modern connectivity. Its unmatched electrical and thermal conductivity make it indispensable in power transmission, wiring, motors, transformers and electronic devices. As economies pivot toward cleaner technologies, copper demand is accelerating with the spread of electric vehicles, charging infrastructure and renewable energy grids. Beyond electricity, copper's antimicrobial properties are also gaining traction in healthcare and public spaces. Often referred to as "Dr. Copper" or the "metal with a PhD in economics," copper prices are closely watched as a barometer of global industrial health, underlining its role as both a physical necessity and an economic indicator.

- **Lead: The Reliable Power Keeper**

Despite environmental concerns and substitution pressures, lead continues to be highly relevant due to its unique properties. Its biggest application lies in lead-acid batteries, which remain the most cost-effective solution for automobiles, backup power systems and storage in regions with unreliable grids. Lead is also used in radiation shielding, cables and certain alloys. In emerging markets, where affordability and reliability drive choices, lead batteries still dominate, making the metal vital for mobility and energy security. As the energy transition unfolds, lead's utility may shift, but its long-standing role as a "reliable power keeper" will persist in key niches.

- **Nickel: The Enabler of Modern Alloys and Clean Energy**

Nickel's true utility lies in its strength as an alloying metal. Over 65% of global nickel demand comes from the production of stainless steel, where it enhances strength, durability and resistance to corrosion, making it indispensable in construction, transport and consumer goods. Beyond steel, nickel has emerged as a strategic metal for the energy transition: it is a critical component in lithium– nickel– manganese– cobalt (NMC) batteries used in electric vehicles and renewable energy storage. This dual role supporting both traditional industries and the clean energy revolution gives nickel a unique place among base metals. For India, where infrastructure growth coincides with a push towards EV adoption, nickel represents not just industrial utility but also strategic value for the future.

- **Zinc: The Protector Metal**

Zinc's most important function is in galvanization - coating steel to prevent rust and corrosion. This protective quality makes it critical in construction, automotive, shipbuilding and infrastructure projects, ensuring long-lasting durability of bridges, pipelines and transport systems. Beyond galvanization, zinc is used in alloys such as brass, die-casting for automobiles and appliances and even in fertilizers to improve crop yields. With urbanization and infrastructure spending rising globally, zinc's role as the "protector" metal ensures it remains quietly but critically central to industrial growth.

Metal	FY26 Demand	Key Driver for future demand
Copper	1.878 Mn MT (FY25 ADC)	Power cables, transformers, EV & clean-energy applications
Aluminium	~6 Mn MT	Electricity T&D, automotive light-weighting, construction
Zinc	1,120 kt	Infrastructure galvanizing, PLI manufacturing, renewables
Lead	~1.2 Mn MT	Automotive & telecom batteries, BESS, grid storage
Nickel	~197.5 kt (India)	ACC PLI battery-grade nickel (50 GWh target), stainless steel

Source: BigMint.

On the supply side, India's aluminium capacity build to ~9.5 Mn MT by FY30 (from ~7.5 Mn MT) and HZL's ₹12,000-crore Debari zinc expansion (1,129 ₹1,379 ktpa by FY28–29) are the two largest capacity commitments in the pipeline-both relevant context for MCX's efforts to deepen the domestic market.

INDIA'S BASE METALS BALANCE SHEET[1]

- **Aluminium:** India ranks 2nd globally in primary aluminium production, with major producers being NALCO, Hindalco, and Vedanta. Lightweight yet durable, aluminium has seen strong demand from packaging. In recent years, the metal has been witnessing robust domestic consumption (about 50 lakh tonnes annually), outstripping production, thereby keeping import dependency relevant despite healthy output.

- **Copper:** India is a net importer after the closure of Sterlite smelter. Domestic demand is about 1.7 million tonnes per annum (MTPA), driven by power cables, transformers, and EV-related applications. The demand is projected to rise substantially in the coming years, with estimates suggesting a need for 3 to 3.3 million tonnes by 2030. In recent times, copper is demonstrating a structural gap - domestic production lags far behind consumption, making India heavily reliant on imports.

- **Zinc:** The metal is largely supplied by Hindustan Zinc Ltd. India is one of the top zinc producers, with output about 0.8 MTPA. Usage of zinc is dominated by the galvanizing sector (>60%). The metal maintains a relatively balanced sheet with production largely aligned with consumption, though export activity moderates the surplus.

- **Nickel:** This is India's most import-dependent metal, with negligible domestic production and nearly all demand met through imports, making it a pure play on global prices and supply risks.

- **Lead:** India's demand comes mainly from the battery industry. Recycling contributes significantly to supply, making it a relatively 'circular' metal. Lead-acid battery market is projected to grow at promising rate supported by automotive and telecom sectors. Lead consumption currently remains stable near 4.8 lakh tonnes, with imports plugging the gap between modest domestic production and demand.

Overall, the trend in Base Metals usage underscores India's rising appetite for such metals, with copper currently demonstrating high import sensitivity, while aluminium and zinc display stronger domestic supply bases. Across Base Metals, the clear thread is that domestic demand consistently runs ahead of secure supply, leaving Indian users exposed to global price swings. Imports play a crucial balancing role, but that also imports volatility in the Indian markets.

SUPPLY CHAIN STRUCTURE IN INDIA

The supply chain of Base Metals in India broadly follow a similar structure, as below:

- **Mining & Primary Production:** India has a strong domestic base in Aluminium (Vedanta, Hindalco, NALCO) and Zinc/Lead (Hindustan Zinc) but remains import dependent for Copper concentrates and refined copper after the closure of Sterlite smelter.

- **Refining & Smelting:** Concentrates are refined into metal ingots and cathodes at smelters. The efficiency and capacity utilization at these smelters directly impact availability.

- **Fabrication & Manufacturing:** Downstream industries such as cables, automobiles, construction and consumer durables necessitate conversion of metals into sheets, rods, alloys and other forms.

- **Distribution & Consumption:** A mix of bulk industries (power, infrastructure, transport) and smaller MSMEs drive final consumption. Imports and secondary (scrap-based) production supplement supply when domestic production is insufficient.

The table below is the snapshot with the underlying production, consumption and trade figures for base metals on FY25/FY26 basis.

Metal	India Production / Capacity	Domestic Demand	Trade Position
Copper	Refined production 1.145 Mn MT (FY26P); ~1.13 Mn MT operable refining capacity	1.878 Mn MT (FY25); CAGR ~14.6% over FY22–25	Net importer; imports 2.638 Mn MT (FY26P); net import dependency ~15.8%
Aluminium	Primary capacity ~4.7 Mn MT, production 4.2 Mn MT (FY26); secondary capacity ~2.5 Mn MT	~6 Mn MT (FY26E), primary + secondary; CAGR ~8% since FY20	Exports fallen from 2.93 Mn MT (FY22) to 1.47 Mn MT (FY26E); imports risen 0.21 →0.47 Mn MT
Zinc	HZL capacity 1,129 ktpa, expanding to 1,379 ktpa by FY28–29	1,120 kt (FY26)	Net exporter, but surplus narrowed from 171 kt (FY23) to ~25 kt (FY26)
Lead	~85% secondary share (vs global ~67%); primary ~200+ kt capacity (HZL)	~1.2 Mn MT (FY26), moderated from ~1.4 Mn MT (FY25)	Import-supplemented; lead-acid batteries ~85% of consumption
Nickel	Zero domestic mining/primary production	~197.5 kt (FY26E); scrap is 42% of stainless-mill inputs	100% import-dependent; India ranks 9th globally by import value

Source: BigMint.

1 Data sources: Monthly Summary on Non-ferrous Minerals & Metals, Ministry of Mines, Govt. of India; Export-Import Data Bank, Depart of Commerce, Govt. of India.

02. Financialising Industry: Derivatives in Base Metals

Trading in Futures and Options in Base Metals has been the hallmark in the financialisation of Base Metals, providing users and market participants with a transparent mechanism for price discovery and risk management in such metals.

While some global exchanges have historically been the price setter in global metal markets, in India, MCX has emerged as the key platform for price discovery and hedging of Base Metals.

PRICE INFLUENCING FACTORS

Base metal prices are driven by a blend of global and domestic forces, the major factors being:

- **Global Prices:** Since metals are globally traded, international prices drive prices in almost all geographies.
- **Exchange Rates:** Depreciation of the domestic currency raises import costs, feeding into domestic prices. Besides, Base Metals in global markets being denominated mostly in the US Dollar, depreciation in the domestic currency immediately translates into higher local prices of the metals.
- **Input Costs:** Energy (especially coal and electricity) is a major cost component, particularly for aluminium and zinc smelting.
- **Demand Cycles:** Infrastructure creation, auto sector demand and renewable energy projects influence consumption of Base Metals. For example, copper demand rises with EV adoption.
- **Imports & Trade Policy:** Import duties, anti-dumping measures and export restrictions alter the supply-demand balance and impact prices.
- **Logistics & Inventories:** Delays at ports, warehousing constraints and transport costs can add volatility to metal prices.
- **Geopolitics & Global Supply Chains:** Disruptions in top exporting or importing nations, or in the supply chain of Base Metals, can influence prices in the domestic economy.

THE INDIAN BASE METALS DERIVATIVES STORY

India has had a long and rich history of trading in commodity derivatives. From the first commodity Exchange (India Cotton Association, set up in 1875) to the modern electronic trading systems, market participants in the country have had exposure to financial instruments, like Futures and Options, on a host of commodities. Till the electronic commodity derivative exchanges, such as MCX, were established in the early part of the present century, these commodities, however, majorly fell in the realm of agriculture and bullion, with few exchanges offering derivative products on industrial metals.

The scene changed after 2003, when Multi Commodity Exchange of India (MCX) started operations from November 2003 following a notification by the Government of India to allow electronic, commodity derivative exchanges in the country. MCX was one of the first to see an opportunity to fulfill the unfulfilled demand for price discovery and risk management of a very large section of Indian industries having exposure to industrial metals. The Exchange commenced Futures trading in Copper (May 2004), Nickel (May 2004), Aluminium (October 2005), Lead (March 2006) and Zinc (March 2006). Soon, MCX emerged as India's largest Exchange in the Base Metals segment, with all stakeholders connected to such metals using MCX prices for benchmarking and hedging against volatile price movements. Options on Base Metals Futures and Futures of different size variants of these metals were subsequently launched.

Given the large and growing consumption, production and imports of metals in a growing economy like India, the Base Metals derivatives market has been serving this large market, estimated at about Rs. 20 lakh crore.

Base Metals being 'international' commodities, their prices are heavily influenced by international factors; their (Rupee) prices in India move closely in tandem with international (Dollar) prices discovered on the global benchmark marketplaces. MCX metal prices have always maintained a high correlation with international metal prices, converted into the local currency. Thus, users and producers in India who have exposure to these industrial metals, have always found the MCX metal derivative contracts as useful tools for hedging and price referencing. In particular, the presence of liquid Rupee-denominated Base Metals Futures and Options contracts makes the need to hedge in international markets, using international currencies, almost redundant.

To enable participants take advantage of high correlation of MCX Base Metal derivative prices with international prices, the Exchange has been facilitating trading till late evening hours (11.30 PM/ 11.55 PM, depending on US

daylight saving hours), so that participants in India can sync their positions during the active hours in the North American/ European markets. Indeed, from the early days of commodity derivatives trade in 2003-24 till now, it is only in this segment of India's financial market that late evening trading is available – an innovation introduced by MCX.

PRODUCT SUITE

In view of the large and widespread usage of Base Metals in India's rapidly growing economy, and sensing the increasing need for price discovery and risk management for users, producers and everyone in the value chain, MCX has been introducing derivative products in several Base Metals. While Futures were introduced from the early days of the Exchange, Options on some of the Base Metals Futures were introduced after Options were permitted in 2016. Further innovating on the Base Metals products, MCX also introduced Futures on the same commodities, but with smaller lot sizes, in order to enable smaller participants to use these contracts as per their needs. Over time, other modifications were made, viz. changing the staggered delivery tender period from five days to three, delinking trading lot size and delivery lot size, etc. In the year 2025-26, the expiry day of the Nickel Futures contract was shifted from the last working day of the calendar month to the third Wednesday of the calendar month. Each of these changes were undertaken in response to the changing demands of the intended users of the Base Metals derivatives contracts. A snapshot of the product suite is provided in Table 2.1, and the key trade metrics are provided in Table 2.2

Table 2.1: Snapshot of MCX Base Metals Products Suite

Futures Contracts	Contract Size	Tick Size	P/L per Tick	Expiry Date	Position Limit		Delivery Unit
					Member	Client	
Aluminium	5 MT	0.05	₹250.00	Last Day	250000 MT	25000 MT	5 MT
Aluminium Mini	1 MT	0.05	₹50.00	Last Day	250000 MT	25000 MT	1 MT
Copper	2.5 MT	0.05	₹125.00	Last Day	70000 MT	7000 MT	2.5 MT
Lead	5 MT	0.05	₹250.00	Last Day	35000 MT	3500 MT	5 MT
Lead mini	1 MT	0.05	₹50.00	Last Day	35000 MT	3500 MT	1 MT
Nickel	0.25MT	0.10	₹25.00	3rd Wednesday	10000 MT	1000 MT	1.5 MT
Zinc	5MT	0.05	₹250.00	Last Day	70000 MT	7000 MT	5 MT
Zinc mini	1MT	0.05	₹50.00	Last Day	70000 MT	7000 MT	1 MT
MCX MetIdex	₹40* MCX iCOMDEX Base Metal Index	1	₹40.00	Last Day	10000 Lots	1000 Lots	_
For all contracts and all Base Metals commodities: • Contracts available for all months • Price Quote - ₹/kg • Daily Price Range - 4%+2%+3% • Tender period - last 3 days of the expiry.							

Aluminium	FY25-26	FY24-25	FY23-24	FY22-23	FY21-22	Last 5 years Average
Average Daily Volume (tonnes)	15,100	15,377	12,061	31,517	26,904	20,192
Average Daily Turnover (Rs. cr)	426	367	245	673	610	464
Average Daily Open Interest (tonnes)	25,961	23,368	22,919	21,723	13,933	21,581
Delivery (Rs. cr)	793	436	608	798	871	701
Delivery (kg)	28,815	18,132	29,863	36,561	38,125	30,299

Copper	FY25-26	FY24-25	FY23-24	FY22-23	FY21-22	Last 5 years Average
Average Daily Volume (tonnes)	34,604	25,130	14,290	29,209	34,238	27,494
Average Daily Turnover (Rs. cr)	6,090	2,108	1,039	2,056	2,548	2,768
Average Daily Open Interest (tonnes)	43,646	26,386	16,413	14,238	11,863	22,509
Delivery (Rs. cr)	4,335	1,931	1,676	1,443	919	2,061
Delivery (kg)	38,290	23,513	23,318	20,868	12,260	23,650

Lead	FY25-26	FY24-25	FY23-24	FY22-23	FY21-22	Last 5 years Average
Average Daily Volume (tonnes)	2,807	4,369	3,422	6,376	12,213	5,837
Average Daily Turnover (Rs. cr)	52	81	63	116	219	106
Average Daily Open Interest (tonnes)	3,037	4,682	3,823	4,130	5,169	4,168
Delivery (Rs. cr)	208	184	197	153	280	204
Delivery (kg)	11,251	10,167	10,894	8,378	15,525	11,243

Zinc	FY25-26	FY24-25	FY23-24	FY22-23	FY21-22	Last 5 years Average
Average Daily Volume (tonnes)	21,887	28,927	25,329	29,460	28,336	26,788
Average Daily Turnover (Rs. cr)	628	777	562	852	739	712
Average Daily Open Interest (tonnes)	24,133	20,307	27,184	12,245	9,448	18,663
Delivery (Rs. cr)	424	472	662	491	593	528
Delivery (kg)	14,691	17,571	29,962	17,808	3,954	16,797

Note: 1. Data for FY 25-26 is for the period Apr – Aug 2025
2: Volume, Turnover and Open Interest of Copper and Zinc includes those of Futures and Options (notional turnover)

Finally, MCX also launched a series of indices under its iCOMDEX family of indices in 2019, constituted of the Base Metals Futures traded on the Exchange (Box 2.1). A Composite Index, single Base Metals indices and a sectoral index (MCX METLDEX) are being published and a Futures contract on METLDEX also available for trading.



Box 2.1: Base Metals Indices under the MCX iCOMDEX Index series

The USP of a Base Metals Sectoral Index

The MCX iCOMDEX indices are excess return indices that derive values from prices of futures contracts traded on MCX. The index series consist of single commodity indices, including of Aluminium, Copper, Lead and Zinc; as well as a Base Metals sectoral index, namely, MCX iCOMDEX Base Metal Index, or MCX METLDEX, and a Composite Index in which the above four Base Metals are constituents.

While aluminium, copper, zinc and lead underpin the physical growth of industry, MCX METLDEX provides the financial community with a structured lens to track and trade that growth. As a composite index of India's most critical base metals, it distils diverse industrial trends into a single benchmark, offering clarity on the broader cycle rather than isolated movements.

Its utility lies in three dimensions. First, it serves as a benchmark for price discovery, reflecting the collective pulse of industrial metals that drive infrastructure and manufacturing. Second, it offers risk management efficiency by enabling market participants to cover exposure to the entire metals basket without entering multiple contracts. Finally, it creates a scalable investment avenue, enabling institutions and funds to participate in the industrial economy through a diversified instrument.

In essence, while base metals build the economy's physical backbone, MCX METLDEX helps build the financial backbone - bringing transparency, efficiency and investibility to India's metals market.

03. The Multiplier Effect: Economic Benefits of Base Metals Derivatives

Since their launch, Base Metals derivatives in India have been appropriately reflecting the market fundamentals emanating from domestic and global markets – the reflection being manifested in the prices being discovered on the Exchange platform. The derivatives market has been a platform not just of price discovery and risk management, but also a mechanism of a host of other benefits too. The Exchange-traded Base Metals derivatives prices are also widely disseminated through social, electronic and other media for the benefit of everyone in the value chain of these commodities – down to the end-consumer.

DERIVATIVES LEADING TO EFFICIENT PRICE DISCOVERY

The efficiently-discovered prices of Base Metals prices on the Exchange helps to provide a reliable price reference to everyone in the value chain of these metals. Such price reference helps to set prices in the physical market, where both the buyer and the seller benefit from knowledge of real-time prices discovered on a trustworthy regulated Exchange platform. As the process of price discovery encapsulates all the information relevant to the commodity, the Exchange-traded Base Metal prices reflect the relevant fundamentals of the metals, and changes therein, through the price movements.

As much is the strength of price discovery on the commodity Exchange, is also the expanse of dissemination of these prices. Thanks largely to Information and Communication Technology and social media, Base Metal prices discovered on the Exchange are instantaneously available through multiple channels. This further contributes to usefulness of the Exchange-discovered metal prices as reference prices by the entire value chain. The efficiency of price discovery and its dissemination is comparable to the best in the world, finds a study undertaken by IIT Kharagpur (Box 3.1).



Box 3.1: Efficiency of Price Discovery in MCX Base Metals Futures

MCX Aluminium and Zinc Futures contracts are characterised by high degree of efficiency, measured by 'Information Leadership Share' and 'Social Loss Index'.

Information Leadership share measures the speed with which new information gets impounded into futures prices, compared to spot prices, while Social Loss Index is a measure of how good is Futures price a predictor of spot price at maturity of the contract.

Measured in these parameters, the efficiency of the above two MCX Base Metals contracts are comparable to those of global benchmark exchanges.

Source: How Futures Market in India has Improved Efficiency of Physical Commodity Markets: an empirical and survey based study on Aluminium and Zinc, IIT Kharagpur, 2021.

PRICE RISK MANAGEMENT – ACROSS THE VALUE CHAIN

One of the most significant economic contribution of Base Metal derivatives is their ability to enable everyone in the value chain – be they buyers or sellers of the commodity - to manage the risk arising out of volatility in prices. Annualized volatility[2] in metal prices has been quite high (Table 3.1) in recent times – which give rise to huge uncertainty in the profitability and cash flows of every economic entity connected to Base Metals. Exchange-traded Base Metals Futures and Options help to lock-in the current price and thereby mitigate the adverse impact of price volatility.

Table 3.1: Annualized Volatility in Base Metals Prices (%)

Year	Aluminium	Copper	Zinc	Lead	Nickel
2020-21	16.21	20.88	22.25	15.56	24.76
2021-22	26.00	20.80	25.16	13.65	63.82
2022-23	21.59	18.73	26.31	13.18	35.88
2023-24	12.86	12.38	17.62	8.41	18.10
2024-25	16.99	17.94	19.53	10.95	17.94
2025-26	19.84	26.67	17.30	13.02	28.57

It may be pertinent to note that Indian exchange-traded Base Metals derivatives reflect duty-paid prices of the underlying metal in Rupee terms. This implies that market stakeholders are able to hedge their exposure in these 'international' commodities, affected by international factors, in Rupee-denominated financial instruments within the Indian geography, without having to seek international hedging markets.

2 Measured by Standard Deviation of MCX Futures prices.

EFFICIENT DELIVERY

Responding to the evolving needs of market participants, especially those from the physical markets, a major change in the MCX Base Metals derivatives contracts was undertaken in 2019: the settlement type was changed into compulsory delivery mode. This not only enabled stakeholders to deposit or take delivery of the metals at/ from the accredited warehouses, but also yielded tighter linkage between the physical and derivatives markets for Base Metals. In particular, as the convergence of derivatives prices were to the Indian physical prices, the Indian market fundamentals started getting reflected more strongly in the prices of MCX Base Metals Futures and Options contracts – leading to the 'Indian price discovery' through the Exchange. Significantly, the transition of settlement to delivery-based mode was executed seamlessly by the Exchange and Clearing Corporation, concluding successful pay-in and pay-out from the very first settlement cycle after the transition.

In the last six years of trade in delivery-based Base Metals contracts, MCX and MCXCCL have proven the high efficiency of the warehousing and delivery mechanism associated with Base Metals. The high quantum of metals delivered so far (Table 3.2) bear testimony to the faith of the physical market stakeholders to the efficiency and reliability of the Exchange and Clearing Corporation's delivery mechanism. Box 3.2 highlights the reliability of the Exchange delivery mechanism which proved its mettle even under periods of stress.

Table 3.2: Cumulative Delivery of Base Metals Handled by MCX / MCXCCL* (Since 2019)

Commodity	Quantity (MT)
Aluminium	1,86,793
Copper	1,48,835
Lead	70,331
Nickel	11,430
Zinc	1,41,779

**Upto March 2026. Cumulatively, about 5.80 lakh tons of Base Metals have been delivered till March 2026.*

Box 3.2: Delivery of the Last Resort – Uninterrupted Exchange Delivery During Lockdown

The Covid episode of 2020 – 2021, and the lockdown associated with the pandemic was arguably one of the biggest sources of disruptions in all forms of economic activities across the world in living memory. While physical markets for metals were partly or fully shut down for prolonged periods, there was one market that emerged as a reliable substitute and that operated uninterrupted even amidst the pandemic – viz. the Exchange-delivery market.

Consequently, a significant quantum of Base Metals and other commodities were delivered in the Exchange-accredited warehouses, with seamless pay-in and pay-out of commodities and successful payment settlements.

Apart from reaffirming the trust of stakeholders in the delivery and clearing mechanism, this instance also underscored the status of the Exchange and its clearing arm as platforms providing physical market participants 'Delivery of the Last Resort'.

SETTING STANDARDS

With a huge value chain in most Base Metals in India and significant production and/ or consumption in metals, it is only natural that the country should create standards for the industry to follow. In the absence of uniform acceptable standards, the Base Metals ecosystem often uses international standards (e.g. those set by the London Metals Exchange, or LME) for reference. Ever since the Base Metals Futures have become deliverable contracts, an attempt is being made to break this status quo and create standards that are widely accepted and more relevant to the Indian stakeholders. These standards are accepted for Exchange Good Delivery and suppliers which meet these standards are empaneled for delivery of goods on the Exchange.

The first metal on which standards were created and suppliers empaneled, was Lead, subsequently, MCX also created and published standards on Aluminum, Copper and Zinc. Metals which meet these standards and supplied by the empanelled suppliers are accepted for Exchange good delivery. This is a significant step towards indigenization of standards, which can contribute to lowering of imports and lead towards the path of Atmanirbhar Bharat.

This initiative of creating and popularising domestic standards makes the standards more relevant to the Indian markets and less dependent on international standards. Besides, empaneling domestic metal suppliers serve the nation by integrating more physical market stakeholders with the regulated derivatives markets, reducing disparities and encouraging quality recycling.

This process of indigenization now covers all base metals. What began with Lead has been progressively extended to Aluminium, Copper and Zinc, and MCX Good Delivery standards today cover the entire base metals basket traded on the Exchange. When domestic suppliers meeting these standards across all metals are empaneled, India's base metals ecosystem would no longer be reliant on international specifications for determining deliverable quality — a milestone that would reinforce both Atmanirbhar Bharat and the credibility of MCX Price as a benchmark rooted in Indian-standard metal.

Box 3.3: Impact Assessments of MCX Base Metals Derivatives

Independent impact assessment studies have established the multifarious ways in which MCX Base Metals derivatives have had a beneficial effect on the broader commodity economy:

1. MCX has enabled India Lead Prices to be discovered by adopting India goods delivery norms and empanelling domestic refined Lead producers for the Exchange Good Delivery.

   - 'Initiatives for achieving Atmanirbhar Bharat – Impact on physical commodity markets and exchange ecosystem', *IIT Kharagpur, 2024.*

2. Majority of the base metal industry participants actively follow the base metal prices quoted in the futures markets at a frequency greater than once a month to update their outlook about the industry.

   - 'Risk Management Concerns and Preferences of Participants in Base Metals Business', *IIM Ahmedabad, 2019*

04. Beyond the Vault: Base Metal Derivatives as an Investment Avenue

Precious metals thrive on sentiment, Base Metals thrive on utility. They are not simply held in vaults; they are consumed, transformed, and embedded into the industrial backbone of every economy. When a nation builds roads, transmits electricity, manufactures cars, or erects high-rise apartments, it consumes these metals. This is why they are often described as "the economy in motion."

For investors, this makes base metals unique. Exposure to them is not merely exposure to short term trading - it is exposure to the pulse of growth itself. Rising consumption of base metals directly signals economic expansion, while contraction often precedes industrial slowdowns. Hence, base metals embody the forward momentum of an economy.

BASE METALS – A DIRECT EXPOSURE TO THE ECONOMY

Gold has long been viewed as an economic barometer. Base metals, on the other hand, reflect action and expansion. Every tonne of copper laid into wires, every kilogram of aluminium pressed into automotive parts, every slab of zinc-coated steel in bridges - all of these represent real, tangible growth.

Thus, investing in base metals is not about hedging wealth - it is about buying into the arteries of growth. They are industrial demand made visible.

DERIVATIVES AS THE GATEWAY – FILLING THE INVESTMENT GAP

Unlike equities, bonds or even gold, it is inconvenient for investors to simply buy aluminium, copper, lead, nickel or zinc as financial assets. There are no Exchange-Traded Funds (ETFs) or Mutual Funds directly holding physical Base Metals in India. The absence of alternative investment vehicles makes Futures and Options on Base Metals the primary gateway for exposure.

This stands in contrast to more developed markets, where investors have direct, passive access to base metals through listed vehicles — copper ETFs and ETCs traded in the US and UK, for instance, allow investors to hold price exposure to industrial metals with the same ease as an equity purchase. In India, no such product currently exists for Base Metals, which means Futures and Options on MCX remain not just the primary but the only route for investors seeking this asset class — underscoring both the size of the gap and the opportunity it represents.

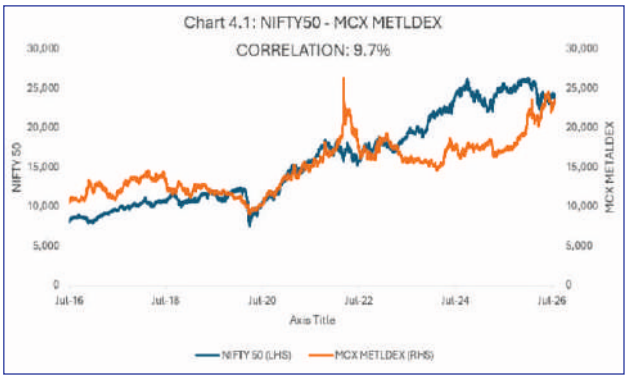
Futures contracts on MCX for aluminium, copper, nickel, zinc and lead allow investors to trade volatility and gain exposure without physical delivery obligations, unless chosen. They turn volatility into strategy. Industrial metals are inherently volatile due to global supply disruptions, energy costs and demand cycles in large metal consuming countries like China. Derivatives transform this volatility from a risk into an investible opportunity where both hedgers and traders can participate. Besides, investment through derivatives also entails capital efficiency. Futures require margins of 5-10% of contract value, giving investors leverage compared to full upfront costs in physical markets. Options add another layer of flexibility, allowing investors to invest in Base metals with a small upfront premium if they are Option buyers and also providing protection against downside risk in prices.

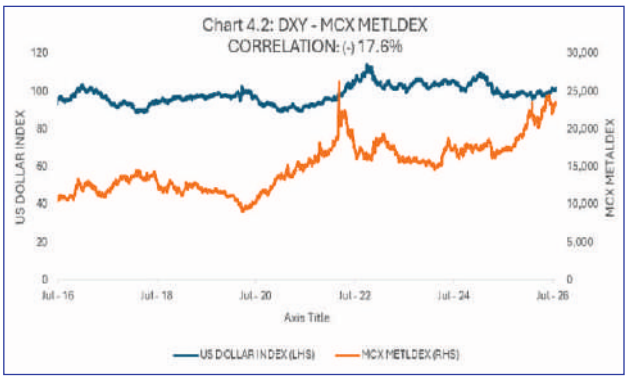
NUANCED CONTRACTS AT MCX: FLEXIBILITY FOR EVERY PARTICIPANT

One of the most significant innovations in India's commodity markets has been the introduction of nuanced contract structures at MCX. Unlike global exchanges that often operate with standardised large lots, MCX has designed a tiered framework that makes participation accessible to a wide spectrum of players from large corporates to small and medium enterprises (SMEs) and even individual traders. Standard Contracts (e.g. 5 MT Aluminium, 5 MT Zinc, 5 MT Lead) cater to large investors, whereas Mini Contracts (e.g., 1 MT variants of Aluminium Zinc and Lead) are tailored for the small investor, apart from small hedgers.

THE DIVERSIFICATION ADVANTAGE OF BASE METALS INVESTMENT

Base Metals are not merely commodities but reflections of industrial growth. As such, investment in Base Metals is akin to investment in the macro growth story of the nation. What makes them even more compelling for investors is their statistical correlation with broader financial markets. Correlation of MCX METLDEX has a weak 10 percent correlation with the equity index Nifty50 (Chart 4.1), and a negative 17 percent with the US Dollar Index, DXY, (Chart 4.2) over a long time period.





In other words, while Base Metals (represented by MCX METLDEX) and Equity (represented by NIFTY50) may both be influenced by economic cycles, they do not always move in lockstep. Likewise, the negative relationship between Base Metals and the Dollar (represented by the Dollar Index) reflects a fundamental truth of commodity markets: metals are priced in USD globally, so a stronger dollar tends to suppress their prices, while a weaker dollar supports them.

The low correlation of Base Metals with other asset classes brings out the diversification benefit and inherent Portfolio Hedge of investing in these commodities.

ARBITRAGE PLAY

Another investment strategy involves arbitrage between MCX METLDEX and their constituents. Correlation in returns between the index and its constituents are given below.

Correlation of Returns (Jan 2016 – Mar 2026)	
MCX iCOMDEX Base Metal Index with	
Aluminium Futures	57%
Copper Futures	77%
Lead Futures	55%
Zinc Futures	79%

With the knowledge of relative movements of MCX METLDEX and the individual Base Metal Futures, one can deploy suitable arbitrage strategies to take advantage of temporary divergences in them. The availability of multiple variants of the constituent Futures contracts (Main and mini), as well as Options on some of the Base Metals, makes it possible to create a still wider variety profitable arbitrage strategies.

INSTITUTIONAL VEHICLES TO INVEST IN BASE METAL DERIVATIVES

Starting from 2016, financial institutions are progressively been allowed to participate in India's commodity derivatives market. This has not only provided a fresh source of liquidity to the market and made it deeper, but also led to market inclusion of many new (especially retail) investors. Mutual Funds, Alternate Investment Funds and Portfolio Managers pool in investors' funds and participate in Base Metals derivatives, thereby indirectly providing the benefits of this asset class to new investors who probably would not have otherwise directly participated in this market.

Under regulatory guidelines in India, Mutual Funds can deploy up to 10 percent of their Assets under Management (AUM) in Exchange Traded Commodity Derivatives (ETCDs), including in Base Metal derivatives, unless the scheme falls under a Multi Asset Allocation Scheme in which case the deployment limit for ETCDs is 30 percent. The inclusion of Base Metals enables Mutual Funds to create truly diversified portfolios, which provide their investors with diversification and portfolio resilience characteristics during market volatility. This is an opportunity being utilised by domestic financial institutions, especially Mutual Funds, to provide superior returns to their clients, as may be seen from Table 4.1.

Table 4.1: Average Daily Turnover and Open Interest of Domestic Financial Institutions on MCX – FY 2025-26

	Average Daily Turnover (Rs. Crore)	Average Long OI (MT)	Average Short OI (MT)
Copper	40.13	4,304	789
Aluminium	1.09	162	149
Zinc	1.11	216	85

05. The Financial Shield: Risk Management with Base Metals Derivatives

Base Metals prices are plagued by high volatility (Table 3.1), which is a source of significant risks for entities exposed to these commodities as their users, traders or producers. For such entities, price swings in Base Metals can directly impact costs, revenues, and overall profitability.

Futures and Options in Base Metals provide an avenue for such entities to manage their price risks by way of hedging. In essence, hedging enables stakeholders in commodity markets to mitigate price risk, achieve greater financial stability, and plan operations more effectively despite market volatility. It acts as a financial shield, ensuring that unpredictable price movements do not disrupt long-term growth and competitiveness. Significantly, there are multiple instruments (Futures and Options) available on an Indian Exchange and multiple size variants (Main and Mini contracts) that cater to different stakeholder groups. The mini contracts, for instance, can be used by SMEs such as wire manufacturers, galvanizers, and battery recyclers who require precision in hedging smaller exposures. This multiplicity of hedging instruments and dual structure in variants ensure that price risk management is not limited to the largest corporations but percolates down to smaller enterprises that are equally vulnerable to volatility.

The Indian Base Metals derivatives market offers liquid contracts for efficient hedging. Open Interest in Copper and Aluminium derivatives (Table 5.1), for instance, can absorb the physical markets' potential hedging demand, with an annual churn of six times in metals' value chain. the availability of

Table 5.1: Readiness of MCX to absorb hedging demand of industry

Metal	Avg. Daily OI, considering both Long and Short OI (MT)	Annual Production (MT)	Annual Imports (MT)	Avg. Daily physical market size (6 times churn)	Availability of Base Metals Derivatives per unit of exposure
	(1)	(2)	(3)	(4)=[(2)+(3)/365]	*6(1) / (4)
Copper	69,154	5,73,000	12,25,000	29,556	2.3 times
Zinc	48,266	8,27,000	2,94,000	18,427	2.6 times

Given below are some examples which explains the benefit of hedging by different industries.

HEDGING ALUMINIUM PRICE RISKS

A beverage can manufacturer requires a steady supply of aluminium, and a rise in aluminium prices would directly increase its production costs. To protect itself from this risk, the manufacturer can adopt a long hedge strategy by purchasing aluminium futures on the Exchange at today's price. If aluminium prices rise in the future, the higher cost in the physical market will be offset by gains in the futures position, thereby stabilizing input costs.

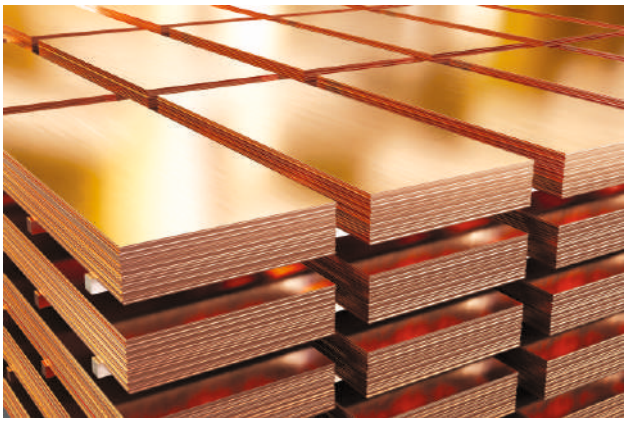
Likewise, an aluminium smelter that produces ingots may fear a decline in aluminium prices, which would reduce its revenue. To manage this risk, the smelter can short hedge by selling aluminium futures. If prices do fall, the lower realization in the physical market will be compensated by profits on the short futures position, thus ensuring revenue stability.

Box 5.1: Financial Risks in the Aluminium Industry: A Brief Review

This 2024 study titled "Financial Risks in the Aluminium Industry: A Brief Review," presented at the International Scientific Conference, underscores the significant price volatility within the aluminium market. The study highlights that financial risks in the industry are closely tied to fluctuations in raw material costs and these fluctuations can profoundly affect production costs and profitability.

Moreover, the study emphasizes the critical need for stakeholders to closely monitor data from a commodity exchange, which serves as a key benchmark for aluminium and its input materials.

By keeping an eye on price trends on the exchange, producers and industrial users can adopt hedging strategies, such as futures and forwards, to effectively mitigate price risks and maintain financial stability.





The long hedge can be further elaborated with the following example:

The beverage can manufacturer requires 500 metric tonnes of aluminium in the next six months for continuous production. The company is concerned that aluminium prices may rise, which would increase its input costs and squeeze profit margins. Currently, aluminium is trading at ₹345 per kg on the spot market, and MCX aluminium futures contracts (5 MT and 1 MT) are also available at ₹350 per kg for the near month. To protect itself from the risk of rising prices, the company decides to take a long hedge by buying aluminium futures on MCX.

For its requirement of 500 MT, the company enters into 100 long futures of Aluminium 5 MT contracts. After six months, when the company needs to buy aluminium from the physical market, spot price has risen to ₹365 per kg. This increase would have raised its procurement cost by ₹10 crore (₹20 per kg × 500 MT × 1000 kg). However, aluminium Futures would have also gained to ₹370 per kg. Thus, the company's long futures position generates a gain, as the futures it bought at ₹350 can now be sold at ₹370, resulting in a ₹20 per kg profit on the hedge. This futures profit offsets the higher procurement cost in the physical market, thereby protecting the manufacturer's margins.

Thus, by entering a long hedge with MCX aluminium futures, the can manufacturer effectively locked in its aluminium input cost and insulated its business from adverse price movements.

HEDGING COPPER PRICE RISKS USING OPTIONS

A copper wire manufacturer requiring 1,000 MT of copper in three months can hedge price risk using MCX copper call options. Suppose the current price is ₹1300 per kg, and he buys call options with a strike of ₹1300 by paying a premium of ₹10 per kg. If prices rise to ₹1350, the option payoff will be ₹50 per kg, which offsets the higher procurement cost, making his effective purchase price ₹1310 (₹1350 – ₹50 + ₹10). If prices instead fall to ₹1250, the option expires worthless, and he buys in the market at ₹1250, with the only loss being the ₹10 premium, giving an effective price of ₹1260. Thus, copper options allow him to cap the risk of rising prices while still benefiting from any fall in copper prices, with the premium being the fixed cost of protection.

06. Unlocking Full Potential: Charting the Path Forward

India's Base Metals derivatives market has proven to yield a host of benefits as discussed in the previous sections. Be so as they may, given the huge and increasing size of India's metals consumption and/ or production and also increasing number of participants in metals derivatives, it is recognized that the market is yet to achieve its true potential. Measured by the ratio of derivatives market size to underlying physical markets, or the ratio of derivatives market size to GDP of the country (3.47 currently), India's potential is much higher than that in many developed jurisdictions.

India should be able to use to metals derivatives to catalyze the development of entire base metal ecosystem – from metals warehouse development to popularizing Indian standards for metals and increasing financing based on metals inventory. The financialization of Base Metals through supporting their derivatives trading can lead to development of the broader ecosystem of Base Metals.

For India to reach its potential in development of the Base Metals market and use the heft of the size of her physical metals market to influence global markets, it is important that some policy and industry actions be taken, some of which are discussed below:

USE OF DOMESTIC EXCHANGE - DISCOVERED COMMODITY PRICES AS REFERENCE

India's commodity derivatives market, including the Base Metals segment, is one of the largest and fastest growing markets in the global commodity market space. Prices discovered on the transparent marketplace provided by regulated commodity Exchanges are widely considered as being fully reflective of the market conditions and fundamentals. Indian entities with exposure to Base Metals face prices which are reflective of Indian market fundamentals, which may differ from the fundamentals prevailing in global markets. As such, these INR-denominated prices in Base Metals discovered on Indian Exchanges — MCX Price — rather than their international prices, should be used for reference in fixing customs duties, earmarking export incentives, tendering etc. The case for this is strengthened further by the fact that MCX Good Delivery standards now span almost the entire base metals basket, which means that MCX Price is backed not merely by liquid trading but by a fully indigenized, India-specific quality and delivery framework. Together, a trusted domestic price and a complete domestic delivery standard give policymakers a credible, self-sufficient reference point, reducing the need to anchor Indian trade and procurement decisions to international prices.

If government departments and Central Public Sector Enterprise (CPSEs) initiate action in this regard, corporate India will follow, thus promoting indigenisation of commodity prices and encouraging users to rely on the Indian prices of Base Metals, which are more relevant.

ENCOURAGEMENT TO HEDGING ON DOMESTIC EXCHANGES

To promote the culture of hedging among in India and also to further develop the Indian commodity derivatives market, it is desirable that hedging in INR-denominated derivative instruments be encouraged for those seeking to hedge abroad. Besides, it will also help in saving precious forex outflow, which otherwise is required for margin maintenance for hedging in global markets. The Reserve Bank of India's guidelines for hedging in international markets excludes gold from the list of eligible commodities whose price risk can be hedged overseas. Consequently, gold hedging interest has seen an uptick in form of increased open interest in gold derivatives on domestic Exchanges. This increase in domestic hedging, in turn, has supported the entire bullion economy in India.

Taking a cue out of the beneficial effects observed with regard to gold, it is desirable that the government/ central bank encourage resident Indians who seek international markets for hedging commodity risks, to hedge a minimum quantum in the domestic economy. To begin with, large Indian listed companies may be encouraged to hedge a minimum of, say, 25% of their hedging activity in the domestic markets.

BROAD-BASING INSTITUTIONAL PARTICIPATION

Participation of financial institutions in commodity derivatives, including in Base Metals derivatives, is rather restrictive in India. Till early-2016, financial institutions were not allowed to participate in this market, a restriction that was removed with permission being progressively accorded to Category III Alternate Investment Funds, Mutual Funds and Portfolio Management Service Providers. It is widely recognized that participation of financial institutions brings in a rich source of liquidity and market depth, while also enabling retail investors to participate indirectly.

However, the window of permissibility to financial institutions in Base Metals derivatives is still rather narrow. For instance, Foreign Portfolio Investors (FPIs) are not allowed in Base Metals Futures and Options despite a recognized demand from these participants. Some other enablers for institutional participation in Base Metals derivatives include the following:

a. Portfolio Management Services should be allowed to be net short in commodity derivatives, which is currently disallowed.

b. Alternate Investment Funds (AIFs) should not have the 10% investment restriction in a single commodity derivative

c. Existing leverage of only 2X for AIFs to invest in commodity derivatives is too restrictive. It should be relaxed.

d. Regulatory permission and guidelines may be given for creating ETFs on Base Metals derivatives.

At another level, a number of financial institutions are not even allowed to participate in the commodity derivatives market, prominent among them being banks, arguably the most important class of financial institutions. In several developing economies, banks play a critical role in connecting the small stakeholders exposed to commodity price risks to hedging instruments.[3] Several expert committees[4] of the Reserve Bank of India and Government of India, among others, have advocated allowing banks to participate in the commodity derivatives market in their own interest and in the interest of their customers.

Like banks, other financial institutions like insurance companies and pension funds are also not allowed to participate in commodity derivatives, which is keeping these institutions away from the benefits that this market can offer them. As discussed in the previous section, addition of Base Metals derivatives in a portfolio adds unique features like diversification to the portfolio. These features make a compelling case for institutions, as much as individuals, to include Base Metals derivatives for efficient treasury management and lending sturdiness to their customers' portfolios.

MANDATING IGST FOR EXCHANGE DELIVERY

The electronic commodity derivatives market in India is a pan-India market with participation from every nook and corner of the country. The associated tax regime, therefore, needs to be in conformity with the national character of this market. The introduction of Goods and Service Tax (GST) was expected to replace the multiplicity of state-level taxes with one tax structure. However, with prevalence of both state-level (SGST) and central-level (CGST) taxes in the GST regime, the Exchange market, particularly for delivery, remains fragmented. This is because delivery can be marked to market participants in states different from their resident states where their commercial activity is concentrated, and not all exchange participants have GST registrations in multiple states. In that case, the buyer of the commodity ends up paying SGST without receiving any offsetting credit for the same.

To address this problem, it is recommended that all Exchange deliveries in all commodities, including in Base Metals, attract only IGST.



3 A more complete analysis of why banks should be allowed to participate in the commodity derivatives market is available at https://www.mcxindia.com/docs/default-source/education-training/occasional-papers/banks_participation.pdf?sfvrsn=2

4 For instance, Abhijeet Sen Committee (2008), Working Group on Warehouse Receipts & Commodity Futures, RBI (2005), Working Group to Review Guidelines for Hedging of Commodity Price Risk by Residents in Overseas Markets, RBI (2017), etc.

ENCOURAGING BANK LENDING AGAINST METALS WAREHOUSE RECEIPT

Warehouse Receipt (WR) financing is an established financing mechanism in most countries and most commodities stored in warehouses. Lending on the basis of WRs not only opens a new avenue for financing for the depositor of the commodities and helps unlock value for the stored commodities, but also creates a secondary market for the WRs themselves. Banks in India are not very active in WR financing in the Base Metals space. Part of the reason for this inactivity is the fact that WRs in Base Metals do not enjoy the status of being 'Negotiable Instruments', which is available for WRs in agricultural commodities. Besides, lending against WRs in agri-commodities is considered part of priority sector lending by banks.

WRs on agri-commodities receive negotiable/ tradable status as the warehouses that issue them are registered by the Warehousing Development and Regulatory Authority (WDRA). Hence, WDRA may consider actively streamlining the registration of metal-based warehouses along with standardized metal grade mapping through electronic repositories, i.e. CCRL. This will enable metal supply chain players (dealers, stockists, agents) to actively trade/finance through the negotiable warehouse receipt (NWR) system.

Some of the developed jurisdictions have long included non-agricultural commodities within the ambit of their NWR systems. Commodities which can be traded through NWRs in the UK include agricultural products, base metals, other minerals and various precious metals.

INDUSTRY ACTIONS

While the above-mentioned policy actions can spur the further development of the Base Metals derivatives market, industry also can take advantage of the market and gain by participating more. As mentioned elsewhere, the presence of Rupee-denominated Base Metals derivatives contracts that has close price correlation with international benchmark prices, enable Indian commercial participants to manage their risks on the regulated Commodity Exchange markets. This not only obviates the need to hedge in the international markets, but also saves about 1.5 to 2 percent of the contract values in currency conversion cost and global clearance fee if they hedge in the domestic markets. Besides, hedging at international markets exposes the hedger to an additional risk – that of adverse currency movements – which needs to be additionally hedged.

Disclosures made by listed companies in their Annual Reports show that the top seven commodity-exposed firms had hedged about 2% of approximately Rs. 1.1 lakh crore of exposure in 2024-25, the remaining unhedged or hedged in international markets. The corresponding forex outflow from hedging in international markets would have been significant, an amount that could have been saved had these companies hedged on domestic Exchanges.

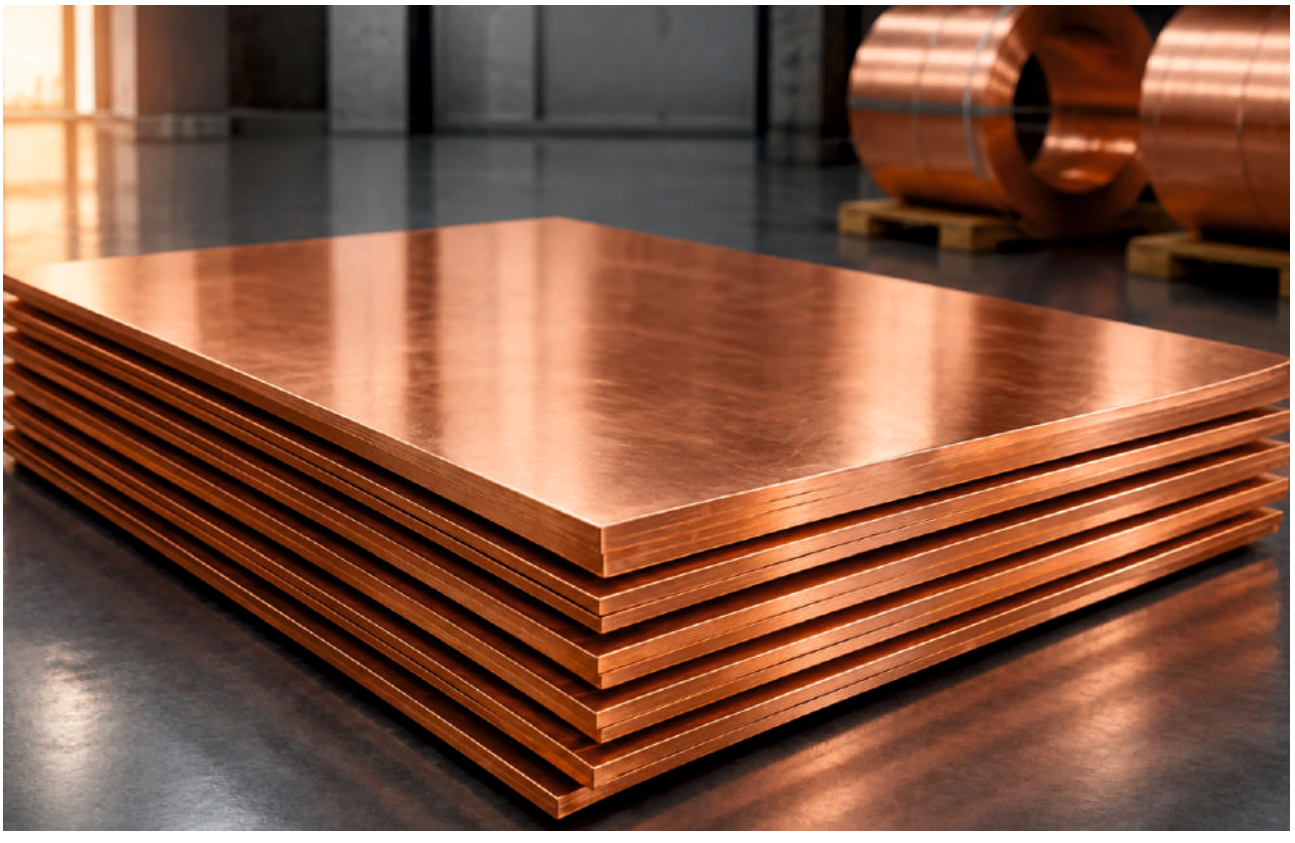
While banks are not allowed to participate in commodity derivatives, they can take up opportunities in this growing market, wherever permitted. They can, for instance, become Clearing Members of commodity derivatives Clearing Corporations and banks' broking arms can take Trading Membership in Exchanges. The business of lending against metal warehouse receipts is still not fully exploited by lenders. Besides, banks can look at the rapidly growing commodity derivatives market for their traditional business and consider margin financing, fee-based business like Bank Guarantees, etc. to serve the growing number of stakeholders in India's commodity derivatives market.

07. The Road Ahead: Conclusion

Base Metals, viz. Aluminium, Copper, Zinc, Lead and Nickel, are foundational pillars of human progress, underpinning the evolution of societies from ancient civilizations to modern India's ambitious growth trajectory. These metals are integral to infrastructure, electrification and sustainable development, serving as critical enablers for India's vision of smart cities, electric mobility and industrial advancement. As the nation charts its course toward a dynamic future, Base Metals remain essential drivers of economic and technological progress.

The introduction and creation of a derivatives ecosystem have elevated Base Metals beyond their industrial utility, positioning them as sophisticated financial instruments by facilitating price discovery, risk management and portfolio diversification. Tailored contract structures, such as standard and mini contracts, as well as availability of multiple tradable instruments, viz. Futures and Options, ensure accessibility across market participants. The low correlation of Base Metals with other asset classes such as equities and currency, underscores their value as quasi-equity diversifiers and currency hedges, enhancing their appeal as an investment avenue uniquely tied to economic growth. Regulatory enablements, including strengthening risk management framework of Exchange-Traded Commodity Derivatives market, and increasing interest of financial institutions like Mutual Funds to participate in commodity derivatives, reflect the increasing maturity of India's Base Metals market, aligning with global financial standards.

The way forward is clear: India's industrial and infrastructure sectors are expanding at an unprecedented pace and her financial markets evolving alongside such growth in the real economy. Base metal derivatives sit at the intersection of these two stories linking industry with investment, growth with stability. With greater institutional participation and supportive policy actions, Base Metals derivatives can emerge as one of the most dynamic pillars of India's financial ecosystem.



NOTES

NOTES



MCX
METAL & ENERGY
Trade with Trust

CORPORATE ADDRESS

Multi Commodity Exchange of India Ltd.

Exchange Square, Suren Road, Chakala, Andheri (East), Mumbai – 400093, India

Tel. No. +91-22-67318888, CIN: L51909MH2002PLC135594, info@mcxindia.com, www.mcxindia.com

Content Provided by: Research Team, MCX

Scan QR code to view & download the report.

Please give your feedback at research@mcxindia.com