

INTRODUCTION TO COMMODITY:

A commodity is a product that has commercial value and it can be produced, bought, sold & consumed. The article or the product has to meet some basic characteristics like:

- The product must be in a basic, unprocessed state. (E.g. wheat is a commodity; but wheat flour & bread are not commodities).
- The product has to be fairly standardized in the sense that there cannot be differentiation in a product based on its quality.
- Prices of the product are determined by market forces, demand & supply & they undergo rapid changes.
- The product should have adequate shelf life so that delivery of a futures contract can be deferred.

What is a Commodity Market?

Market is a place where buyers & sellers meet to transact a business. It is a platform where a wide range of products like precious metals, base metals, energy products & other commodities like soy oil, palm oil, coffee and food grains are traded. Commodity futures in particular help price discovery & assist investors in hedging their risks by taking positions in commodities & exploiting arbitrage opportunities in the market. Investment commodities are held primarily for investment (e.g. gold and silver). Consumption commodities are held primarily for consumption (e.g. edible oil, pulses, metals, etc.).

Types of Commodity Markets

Over the counter/Spot market: Buyers & sellers meet "face to face" & deals are struck. This is similar to "over the counter (OTC)" market where there is no need for an organization like a commodity exchange. These are traditional markets. Classic example of a spot market is a "mandi" where food grains are sold in bulk. Farmers would bring their produce to this market & food grain merchants/traders would purchase the produce "on the spot" & settle the deal in cash.

Forward & Futures Markets: Forwards & Futures contracts reduce the risks of price volatility by allowing the trader to decide a price today for goods to be delivered in the future. **Forward markets** are cash markets where delivery takes place some time in the future, unlike spot markets that call for immediate delivery.

For **forward contracts**, terms like quantity, quality, delivery date & price are discussed in person between the buyer & the seller thus each contract is unique & not standardized. Whereas, in **futures contracts** all terms like quantity, quality & delivery date are standardized except price, which is discovered through the interaction of supply & demand in a centralized marketplace or exchange.

Size of the Commodities Market

Internationally, the size of a commodities futures market is 5–20 times that of the commodities spot market. Commodities (spot) markets in India is about Rs.11 trillion worth per annum. In the table given below, even if we assume a 5 times multiple the commodity futures markets can grow up to become Rs.55 trillion.

Market	Annual Physical trade (Rs. in Cr.)	3 time multiple (Rs. in Cr.)	5 time multiple (Rs. in Cr.)
Energy	5,00,000	15,00,000	25,00,000
Bullion	40,000	1,20,000	2,00,000
Agriculture	5,00,000	15,00,000	25,00,000
Metals	60,000	1,80,000	3,00,000
Total	11,00,000	33,00,000	55,00,000
Per Day	4400	13200	22000

Source: Forward Market Commission

Commodity futures are contracts to buy or sell a specific quantity of a particular commodity at a future date at a pre-determined price. It is akin to index and stock futures; however, the underlying happens to be commodities instead of stocks and indices.

Major Commodity Exchanges

The Government of India permitted establishment of National-level Multi-Commodity exchanges in the year 2002 and accordingly three exchanges have come into picture.

- Multi-Commodity Exchange of India Ltd, Mumbai (MCX).
- National Commodity and Derivatives Exchange of India, Mumbai (NCDEX).
- National Multi Commodity Exchange, Ahmedabad (NMCE).

Additionally, there are regional commodity exchanges functioning all over the country as well.

Volumes in Commodity Exchanges

The two exchanges (NCDEX & MCX) have seen tremendous growth in less than two years. The daily average on these two exchanges put together has now grown to a healthy Rs.3700 Crores. It is believed that the volumes on these exchanges would overtake the stock market volumes in the days to come.

Month/Rs Cr	NCDEX	MCX	Total	Daily Avg
April (2004)	856	1508	2364	107
May	987	1577	2564	117
June	2041	2654	4695	213
July	6381	5340	11721	533
August	9744	8397	18141	825
September	34000	12131	46131	2097
October	27696	17567	45263	2057
November	26756	21240	47996	2182
December	42091	21152	63243	2875
January—2005	30736	17996	48732	2215
February	34665	25076	59741	2716
March	50379	31886	82265	3739

Source: Forward Market Commission

Some of the most popular exchanges around the world are given below along with the major commodities traded

EXCHANGE	MAJOR COMMODITIES TRADED
Chicago Board of Trade (CBOT)	Soy Oil, Soy Beans, Corn
Chicago Board Option Exchange (CBOE)	Options on Energy, Interest rate
London Metals Exchange (LME)	Aluminium, Copper, Tin, Lead
New York Mercantile Exchange (NYMEX)	Crude Oil, Heating Oil
Tokyo Commodity Exchange (TOCOM)	Silver, Gold, Crude oil, Rubber
Malaysian Derivatives Exchange (MDEX)	Rubber, Soy Oil, Palm Oil

Regulators of the Commodity Exchange

The commodity exchanges are regulated by the Forwards Market Commission (FMC) which is under the purview of the Ministry of Consumer Affairs.

Clearing and Settlement

The exchange guarantees the settlement of trades and so eliminates the counter-party risk in the transactions. The exchange for this purpose maintains a Settlement–Guarantee fund similar to stock exchanges.

Specifications of Commodity Futures:

Tick Size refers to a minimum change in price up or down. It is the smallest increment of price movement possible in trading a given contract. For example, in case of Gold if the Tick size is Re.1 then the minimum change in price up or down will be by Re.1.

Lot Size is the unit of trading in commodity, established by an exchange to which official price quotations apply. The exchange allots different lot sizes to different commodities. For example, if the lot size of Gold is 1kg and one wants to place an order then the unit of trading cannot be less than 1kg. If one wants to place an order of more than 1kg then it has to be 2kgs, 3kgs etc., and **not** 1.5kgs or 2.5kgs.

Margin is the amount a futures market participant must deposit into his margin account at the time he places an order to buy or short-sell a futures contract. The margins in the commodity futures market are less than the F&O section of the equity market. For example, if the contract value of Gold is Rs 900,000, the investor will simply have to invest 36,000 as the margin for Gold is 4%. Thus, unlike stocks, commodity futures allow participants to invest for a fraction of the contract value. This margin is set by the exchange and is different for different commodities.

Mark to Market

In case of the commodities futures market one has to bear the mark to market profit or loss on a daily basis for open positions. For example, if an investor had bought one lot i.e. 1Kg of gold at 9100/10gms, the contract value of gold would be 910,000 (9100*100). If the market closes at 9,150 the contract value would be 915,000 (9150*100) i.e. profit of Rs. 5,000 (915,000 – 910,000). Hence, at the end of the day the buyers account will be credited by 5,000.

Let us assume that the daily closing settlement prices are as shown and assume that we bought (long position) 1 Kg of Gold at 9200/10gms and after 3 days we sold 1 Kg of Gold at 9250/10gms and in between those days the following were the closing prices:

	Closing Prices		
Day 1	9150		
Day 2	9050		
Day 3	9175		
Case	Closing Price	Daily Settlement	Profit/Loss (per 10gms)
Position Opened – Buy @ 9200			
Day 1	9150	9150 - 9200	-50
Day 2	9050	9050 - 9150	-100
Day 3	9175	9175 - 9050	125
Position Closed – Sell @ 9250		9250 - 9175	75
Net Profit / (Loss)			50

The net profit of mark to market cash flows is 50 points which equals to Rs. 5,000 (50*100 as 10gm*100 = 1 Kg) If the same example was taken for short-selling then the investor would have made a loss of Rs.5000.

Date of Expiry

At NCDEX the contracts usually expire on the 20th day of each month. If 20th happens to be a holiday the expiry day will be the previous working day. On the other hand, at MCX the expiry day is usually the 15th of every month. If 15th happens to be a holiday the expiry day will be the previous working day. The expiry day also differs for different commodities in both the exchanges.

Transaction Charges

Although FMC does not levy any transaction charges as of now, the respective commodity exchanges levy transaction charges. Transaction charges are in the range of Rs 4 to Rs 6 per lakh/per contract, which may differ for each commodity/exchange.

Settlement of a Transaction

Unlike cash settlement on expiry of open positions in the stock and index futures and options market, open positions in the commodity futures do not automatically result in cash settlement. The options available for deliveries are (a) at the instance of the buyer (b) at the instance of the seller, (c) compulsory delivery or (d) intention matching. A settlement takes place either through squaring off, cash settlement the position or physical delivery.

Squaring off is taking a contrary position to the initial stance, which means in the case of an original buy contract an investor would have to take a sell contract. An investor who intends to give or take delivery would have to inform his broker of the same prior to the start of delivery period.

Cash settlement occurs when the investor does not square off the position and is also unable to deliver. There is also a fine that the defaulter (the investor who is unable to take or make delivery) has to pay.

Seller's Option: A seller intending to give delivery would have to approach the accredited warehouse for availability of space and the assayer, who certifies the quality of the goods; the goods are required to meet the pre-set quality specifications. The seller has to bear storage charges until the date of demat credit, loading/unloading and all other incidental charges, including assaying charges. Not all goods can be delivered to all warehouses, as there are specific delivery centers, which vary from commodity to commodity and from exchange to exchange. However, the seller has the option of choosing the delivery centre among these accredited warehouses.

Buyer's Option: A buyer intending to take physical delivery has to request his broker. The buyer has to then approach the warehouse with the document (re-materialisation form or the warehouse receipt). It is possible to take partial delivery of a commodity from the warehouse. All incidental charges pertaining to taking delivery are to be borne by the buyer.

Compulsory Delivery: Compulsory delivery makes it mandatory for the buyers and sellers to take and give, respectively, the physical delivery of the underlying if they have open positions on the expiry of such contracts. Compulsory delivery contracts have their delivery request entry window open from three days prior to expiry till expiry. By submitting requests, the buyers and sellers can indicate their preferred location of taking/receiving delivery. Delivery requests can be modified or cancelled during this period of delivery window.

Intention Matching: Intention matching delivery gives both the seller and the buyer an option to give delivery request to the exchange. On the expiry day the exchange would match such requests and assign delivery to the matched buyers and sellers.

Sales Tax on Trades: If a trade is squared off then no sales tax is applicable. However, the sales tax is applicable in case of trade resulting into delivery. Normally, it is the seller's responsibility to collect and pay the sales tax. The sales tax is applicable at the place of delivery. Those who are willing to opt for physical delivery need to have a sales tax registration number.

Participants in Commodity Derivatives

Hedgers

They are in the position where they face risk associated with the price of an asset. They use derivatives to reduce or eliminate risk. For example, a farmer may use futures to establish the price for his crop long before he harvests it. Various factors affect the supply and demand for that crop, causing prices to rise and fall over the growing season. The farmer can watch prices discovered in trading at the commodity exchange and when they reflect the price he wants, he can sell futures contracts to assure him of a fixed price for his crop.

- **Buying hedge or long hedge:** Buying hedge means buying a futures contract to hedge a cash position. Buying hedge strategy is used by dealers, consumers, fabricators, etc. who have taken or will be taking exposure in the physical market and are worried about prices rising.

Example: A cotton mill owner who intends to sell a quantity of cloth for delivery some months from now to a customer, but does not own enough cotton to produce the cloth could hedge by buying enough futures contracts to cover the forward sale of cloth. He now has a price for the raw material to which operating and production costs can be added to arrive at a base price for the cloth. Quoting such a price before buying the cotton would make him vulnerable to price rise but having bought futures in a quantity equivalent to his needs, he has some assurance that a rise in futures price would lessen the impact of a rise in the cost of the actual cotton.

- **Selling hedge or short hedge:** Selling hedge is also called short hedge. Selling hedge means selling a futures contract to hedge a cash position. Selling hedge is used by dealers, consumers, fabricators, etc. who have taken or will be taking exposure in the physical market and are worried about prices falling.

Example: A pepper trader may either have an unsold inventory of pepper, or he may have bought it for later delivery. By holding inventories both the trader and the processor can make their purchases when it is most opportune and lower their transaction costs through fewer transactions. Another advantage to the processing firm in holding inventory is that it makes it possible to avoid interruption in production. Since the merchant owns the commodity, he would suffer losses if the prices dropped. To hedge the trader would have to sell an equivalent amount of futures contracts. Now if the prices drop the cash market loss will be at least partially offset by a gain in the futures contract. When the trader sells his inventory at a lower cash market price, he will simultaneously lift his hedge by buying back the futures contract at the lower price. The gains in the futures will be approximately equal the traders loss in the cash market.

Speculators

Speculators wish to bet on the futures movement in the price of an asset. They use derivatives to get extra leverage. A speculator will buy and sell in anticipation of future price movements, but has no desire to actually own the physical commodity.

- **Long position in futures:** A long position in futures for speculative purpose implies buying a futures contract in anticipation of increase in the price before expiry of the contract. If the price of the futures contract increases before the expiry of the contract then the trader makes profit on squaring of the position and if the price of the futures contract decreases then the trader makes losses.
- **Short position in futures:** Short position in futures for speculative purpose means selling a futures contract in anticipation of decrease in the price before expiry of the contract. If the price of the futures contract decreases before the expiry of the contract then the trader makes profit on squaring of the position and if the price of the futures contract increases then the trader makes losses.

Arbitragers

They are in the business to take advantage of a discrepancy between prices in two different markets. Arbitragers are interested in locking in a minimum risk profit by simultaneously entering into transactions in two or more markets. If, for example, they see the future prices of an asset getting out of line with the cash price, they will take offsetting positions in the two markets to lock in a profit.

- **Arbitrage:** A risk-free type of trading where the same instrument is bought and sold simultaneously in two different markets in order to cash in on the difference in these markets.
- **Spread:** It involves buying one contract and selling another contract at the same time. The idea is to profit in changes in the price differentials in related commodities (or, in some cases, even the same commodity but in different contract months). It is called "spread trading" because you're trading the price spread between the two markets and aren't necessarily concerned with the absolute price level of either market.
- **Buying a spread:** Buying a spread is an intra commodity spread strategy means buying a near month and simultaneously selling a far month contract. This strategy is adopted when the near month contract is under-priced or the far month contract is overpriced. A trader of the above strategy buys the near month contract and sells the far month contract when the price is not fair and squares off the positions when the spread corrects and the contracts are traded at fair spread.
- **Selling a spread:** Selling a spread in an intra commodity spread strategy means selling a near month and simultaneously buying a far month contract. This strategy is adopted when the near month contract is overpriced or the far month contract is under-priced. A trader of the above strategy sells the near month contract and buys the far month contract when the price is not fair and squares off the positions when the spread corrects and the contracts are traded at fair spread.

Benefits of investing in the Commodity Markets

Commodity futures are beneficial to a large section of the society, be it farmers, businessmen, industrialists, importers, exporters, or consumers.

If you are an **investor**, commodity futures represent a good form of investment because of the following reasons:

- **Diversification:** The returns from commodities market are free from the direct influence of the equity and debt market, which means that they are capable of being used as effective hedging instruments providing better diversification.
- **Less Manipulation:** Commodities markets, as they are governed by international price movements are less prone to rigging or price manipulations by individuals.
- **High Leverage:** The margins in the commodity futures market are less than the F&O section of the equity market.

If you are an **importer** or an **exporter**, commodity futures can help you in the following ways:

- **Hedge against price fluctuations** – Wide fluctuations in the prices of imports and exports products can directly affect an exporter's/importer's bottom-line as the price at which one imports/exports is fixed before-hand. Commodity futures help to procure or sell commodities at a price decided months before the actual transaction, thereby ironing out any fluctuation in prices that happen subsequently.

If you are a **producer** of a commodity, commodity futures can help you as follows:

- **Lock-in the price for your produce:** If you are a farmer, there is every chance that the price of the produce may come down drastically at the time of harvest. By taking positions in commodity futures farmers can effectively lock-in the price at which they wish to sell their produce.
- **Assured demand:** Any glut in the market can make a farmer wait unendingly for a buyer. Selling commodity futures contract can give them assured demand at the time of harvest.
- **Increase in holding power:** Farmers can store the underlying commodity in exchange approved warehouse and sell in the futures market to realize the future value of the commodity.

If you are a **large scale consumer** of a product, commodity futures can help you as follows:

- **Control your cost:** For industrialists, the raw material cost dictates the final price of their output. Any sudden rise in the price of raw materials can compel them to pass on the hike to their customers and make their products unattractive in the market. By buying commodity futures, they can fix the price of their raw materials.
- **Ensure continuous supply:** Any shortfall in the supply of raw materials can stall an industrialist's production and make them default on their sale obligations. However, they can avoid this risk by buying a commodity futures contract by which they are assured supply of a fixed quantity of materials at a pre-decided price at the appointed time.

Criticisms of Investing in the Commodity Futures Market:

- Commodity market prices can fluctuate wildly depending on the factors which are sometimes beyond human control like floods, storms, and earthquakes; thus, creating temporary shortages of commodities and resulting in drastic changes in their prices in a very short time.
- Futures trading involves a passage of time between entering into a contract & its performance thereby, making the contracts susceptible to risks and uncertainties; hence, it is necessary that the players in the commodity markets understand the functioning of commodity markets, the mechanisms of commodity exchanges and study the factors that can affect commodity prices.

Potential of Commodity Futures Markets in India

Majority of commodities traded on the commodity exchanges world over are agro based. Hence, commodity markets are of great importance & hold great potential in case of Agrarian Economies like India where the agriculture sector contributes 22% to the country's GDP & employs 70% of the working population. There is a huge domestic market for commodities in India since India consumes a major portion of its agro production locally. Therefore, Indian commodities market has excellent growth potential & has created good opportunities for market players.

As a result, both the spot & futures commodity markets in India are witnessing rapid growth. Additionally, the trading volumes are increasing as the list of commodities traded on national commodity exchanges also continues to expand. The volumes are likely to surge further as a result of the increased interest from the international players in the Indian commodity markets. If these international players are allowed to participate in commodity markets, the growth in commodity futures can be expected to be phenomenal.