

## **Commodity Exchanges and Its Growing Importance: An Indian Perspective**

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**ABSTRACT :** Commodity futures trading began to be permitted in several commodities, and the ushering in of the Twenty-first Century saw the emergence of new National Commodity Exchanges with countrywide reach for trading in almost all primary commodities and their products. These growing importances of commodity markets are importance to understand from industrial, investors and other stockholders perspective.

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**KEYWORDS:** Commodities, Commodity markets, Investors, Trading.

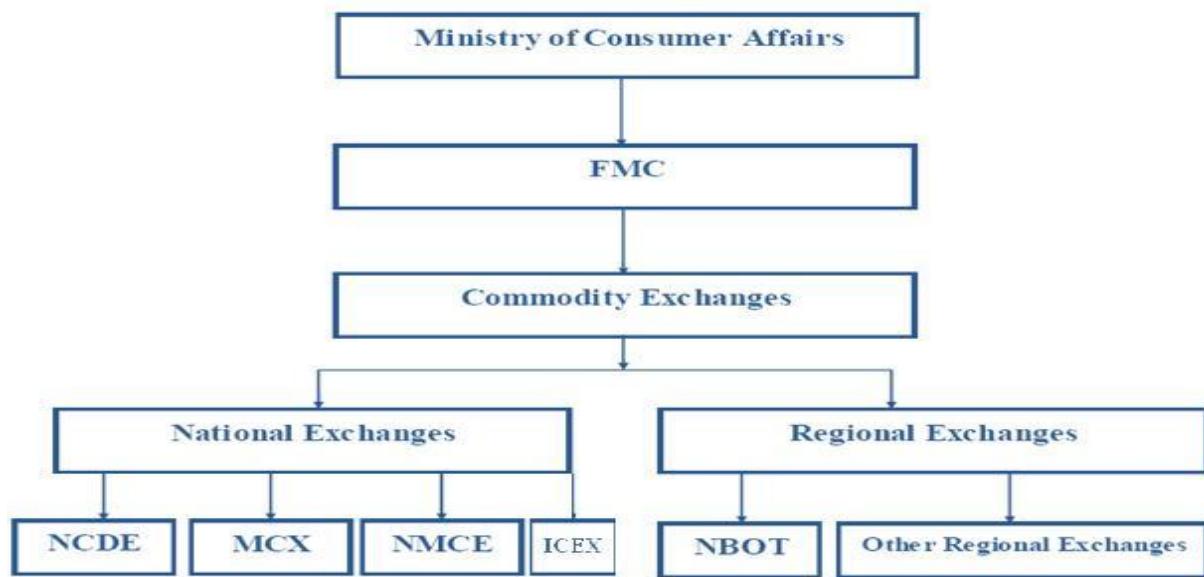
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### **I. INTRODUCTION**

India has a long history of commodity futures trading, extending over one hundred and twenty-five years. Still, such trading was interrupted suddenly since the mid-seventies in the fond hope of ushering in an elusive socialistic pattern of society. As the country embarked on economic liberalization policies and signed the GATT Agreement in the early nineties, the government realized the need for futures trading to strengthen the competitiveness of Indian agriculture and the commodity trade and industry. Futures trading began to be permitted in several commodities, and the ushering in of the 21<sup>st</sup> Century saw the emergence of new National Commodity Exchanges with countrywide reach for trading in almost all primary commodities and their products. A commodity futures contract is essentially a financial instrument. Following the absence of futures trading in commodities for nearly four decades, the new generation of Commodity producers, processors, market functionaries, financial organizations, broking agencies and investors at large are, unfortunately, unaware at present of the economic utility, the operational techniques and the financial advantages of such trading. The Multi Commodity Exchange of India (MCX) the first national level exchange in the country is, therefore, launching this Commodity Futures Education Series to provide valuable insights into the rationale for such trading, and the trading practices and regulatory procedures prevailing at the Exchange. For easy understanding and simplification of various issues and nuances involved in commodity futures trading, a convenient question-answer approach is adopted.

### **II. STRUCTURE, CONDUCT & CURRENT STATUS**

Broadly, the commodities market exists in two distinct forms—the over-the-counter (OTC) market and the exchange based market. Further, as in equities, there exists the spot and the derivatives segments. Spot markets are essentially OTC markets and participation is restricted to people who are involved with that commodity, such as the farmer, processor, wholesaler, etc. A majority of the derivatives trading takes place through the exchange-based markets with standardized contracts, settlements, etc. The exchange-based markets are essentially derivative markets and are similar to equity derivatives in their working, that is, everything is standardized and a person can purchase a contract by paying only a percentage of the contract value. A person can also go short on these exchanges. Moreover, even though there is a provision for delivery, most contracts are squared-off before expiry and are settled in cash. As a result, one can see an active participation by people who are not associated with the commodity. The typical structure of commodity futures markets in India is as follows



At present, there are 26 exchanges operating in India and carrying out futures trading activities in as many as 146 commodity items. As per the recommendation of the FMC, the Government of India recognized the National Multi Commodity Exchange (NMCE), Ahmadabad; Multi Commodity Exchange (MCX), National Commodity and Derivative Exchange (NCDEX), Mumbai and Indian Commodity Exchange ( ICEX) as nationwide multi-commodity exchanges.

#### TURNOVER

Exchanges	2010– 11	2011 – 12	2012 – 13	2013 – 014
Values in lakh crores				
MCX	24.98	25.45	38.65	29.34
NCDEX	6.98	17.56	28.90	20.12
NMCE	2.23	7.98	10.66	8.95
NBOT	1.50	2.99	4.80	3.54
Others	1.98	3.09	4.62	3.73
<b>All Exchanges</b>	<b>37.67</b>	<b>57.07</b>	<b>87.63</b>	<b>65.68</b>

Source: moneycontrol.com

**ELECTRONIC FORM OF COMMODITY TRADING:** The move to electronic trading in the commodities markets, ongoing deregulation and the pressure to increase trading margins are all making it more important than ever for you to improve trading efficiencies. Now there's a unique trading solution that lets you execute across multiple execution Venues – fully integrated within your desktop. The Routing for Commodities technology facilitates an open and neutral order. Routing hub hosted by energy traders and incorporating Tray port's trading technology. It allows continued connection by traders to their existing trading pools\* and easier future connection to other execution venues. Execute on the best price for each instrument and carry out trades across multiple marketplaces simultaneously. It all adds up to increased productivity and a competitive advantage so crucial in today's fast-paced energy markets.

#### II      BENEFITS OF COMMODITY FUTURES MARKETS

The primary objectives of any futures exchange are authentic price discovery and an efficient price risk management. The beneficiaries include those who trade in the commodities being offered in the exchange as well as those who have nothing to do with futures trading. It is because of price discovery and risk management through the existence of futures exchanges that a lot of businesses and services are able to function smoothly.

**Price Discovery:-**Based on inputs regarding specific market information, the demand and supply equilibrium, weather forecasts, expert views and comments, inflation rates, Government policies, market dynamics, hopes

and fears, buyers and sellers conduct trading at futures exchanges. This transforms into continuous price discovery mechanism. The execution of trade between buyers and sellers leads to assessment of fair value of a particular commodity that is immediately disseminated on the trading terminal.

**Price Risk Management:** - Hedging is the most common method of price risk management. It is a strategy of offering price risk that is inherent in spot market by taking an equal but opposite position in the futures market. Futures markets are used as a mode by hedgers to protect their business from adverse price change. This could dent the profitability of their business. Hedging benefits who are involved in trading of commodities like farmers, processors, merchandisers, manufacturers, exporters, importers etc.

**Import- Export competitiveness:** - The exporters can hedge their price risk and improve their competitiveness by making use of futures market. A majority of traders which are involved in physical trade internationally intend to buy forwards. The purchases made from the physical market might expose them to the risk of price risk resulting in losses. The existence of futures market would allow the exporters to hedge their proposed purchase by temporarily substituting for actual purchase till the time is ripe to buy in physical market. In the absence of futures market it will be meticulous, time consuming and costly physical transactions.

**Predictable Pricing:** - The demand for certain commodities is highly price elastic. The manufacturers have to ensure that the prices should be stable in order to protect their market share with the free entry of imports. Futures contracts will enable predictability in domestic prices. The manufacturers can, as a result, smooth out the influence of changes in their input prices very easily. With no futures market, the manufacturer can be caught between severe short-term price movements of oils and necessity to maintain price stability, which could only be possible through sufficient financial reserves that could otherwise be utilized for making other profitable investments.

**Benefits for farmers/Agriculturalists:** - Price instability has a direct bearing on farmers in the absence of futures market. There would be no need to have large reserves to cover against unfavorable price fluctuations. This would reduce the risk premiums associated with the marketing or processing margins enabling more returns on produce. Storing more and being more active in the markets. The price information accessible to the farmers determines the extent to which traders/processors increase price to them. Since one of the objectives of futures exchange is to make available these prices as far as possible, it is very likely to benefit the farmers. Also, due to the time lag between planning and production, the market-determined price information disseminated by futures exchanges would be crucial for their production decisions.

**Credit accessibility:** - The absence of proper risk management tools would attract the marketing and processing of commodities to high-risk exposure making it risky business activity to fund. Even a small movement in prices can eat up a huge proportion of capital owned by traders, at times making it virtually impossible to pay back the loan. There is a high degree of reluctance among banks to fund commodity traders, especially those who do not manage price risks. If in case they do, the interest rate is likely to be high and terms and conditions very stringent. This poses a huge obstacle in the smooth functioning and competition of commodities market. Hedging, which is possible through futures markets, would cut down the discount rate in commodity lending.

**Improved product quality:** - The existence of warehouses for facilitating delivery with grading facilities along with other related benefits provides a very strong reason to upgrade and enhance the quality of the commodity to grade that is acceptable by the exchange. It ensures uniform standardization of commodity trade, including the terms of quality standard: the quality certificates that are issued by the exchange-certified warehouses have the potential to become the norm for physical trade.

### **III COMMODITY TRADING AN INDUSTRIAL PERSPECTIVE**

- Hedging the price risk associated with futures contractual commitments.
- Spaced out purchases possible rather than large cash purchases and its storage.
- Efficient price discovery prevents seasonal price volatility.
- Greater flexibility, certainty and transparency in procuring commodities would aid bank lending.
- Facilitate Informed lending
- Hedged positions of producers and processors would reduce the risk of default faced by banks
- Lending for agricultural sector would go up with greater transparency in pricing and storage.
- Commodity Exchanges to act as distribution network to retail agri-finance from Banks to rural households.
- Provide trading limit finance to Traders in commodities Exchanges

**COMMODITY TRADING AN INVESTOR'S PERSPECTIVE:** Trading commodity futures and options is not for everyone. It is a volatile, complex, and risky business. Before you invest any money in futures or options contracts, you should:

- Consider the financial experience, goals, and financial resources and know how much can afford to lose above and beyond your initial payment.
- Understand commodity futures and option contracts and obligations in entering into those contracts.
- Understand exposure to risk and other aspects of trading by thoroughly reviewing the risk disclosure documents broker is required to give you.

#### **ADVANTAGES OF TRADING IN COMMODITIES FOR AN INVESTOR:**

- **Leverage**--Unlike the stock market, where you might have to actually spend up to \$100,000 to buy \$100,000 worth of a stock, through margin deposits, a commodities trader can leverage hundreds of thousands of dollars worth of a commodity for pennies on the dollar.
- **Government regulated**--The futures markets are so crucial to the well being of our nation, that the government established the Commodity Futures Trading Commission (CFTC) to oversee the industry. There is also a self-regulatory body, the National Futures Association (NFA), to further monitor the activity of all market professionals. We also encourage you to check the background of any broker or brokerage that you may plan to trade with.
- **Liquidity**--The U.S. futures markets are the largest in the world in terms of trading **volume** and dollars, transacting hundreds of millions of dollars daily.
- **Low transaction costs** --For example, if you thought the price of coffee was going higher, you could attempt to locate a seller and buy 37,500 lbs. of coffee, (the standardized size of one coffee futures contract). You could have the coffee shipped to a warehouse, and insure it until the price hopefully rose. When you felt the price wasn't going any higher, you would have to find a buyer, ship it to them, and hopefully receive your money. Instead, by depositing margin, (approximately \$4,200 in this example) from your ALTAVEST Worldwide Trading, Inc. trading account, and going long a coffee futures contract, you could trade coffee (or any other commodity) without the hassle of locating a buyer and seller, and without incurring the extra costs of transportation, storage and insurance. Your only true cost would be your commissions and fees.

### **III ANALYSIS OF INDIAN COMMODITY EXCHANGE FROM INVESTORS PERSPECTIVE**

In the study the criteria for commodity selection is done on the basis of availability of historical prices. The prices are taken on the basis of expiry date of the contract. The prices are of those commodities which are commonly traded in both MCX and NCDEX. The commodities size is for a period of three months, i.e. one hundred days. The lists of commodities taken for the study are as follows: Wheat, Soya seed, Silver, Gold, Rice, Chana, Turmeric, Yellow peas, Rubber.

**CALCULATION OF AVERAGE DAILY RETURN:** The calculation of avg returns on the commodities is done with both the exchanges with the historical data taken and the values are as follows:

**MCX**

Commodities	Avg Daily Returns
Wheat	<b>-0.05%</b>
Soya	<b>0.11%</b>
Silver	<b>0.02%</b>
Gold	<b>0.01%</b>
Rice	<b>0.05%</b>
Chana	<b>-0.09%</b>
Gur	<b>-0.11%</b>
Turmeric	<b>0.09%</b>
yellow peas	<b>0.10%</b>
Rubber	<b>-0.09%</b>

**NCDEX**

Commodities	Avg Daily Returns
Wheat	<b>-0.01%</b>
Soya	<b>-0.09%</b>
Silver	<b>-0.05%</b>
Gold	<b>-0.05%</b>
Rice	<b>0.00%</b>
Chana	<b>0.02%</b>
Gur	<b>0.06%</b>
Turmeric	<b>-0.07%</b>
Yellow Peas	<b>-0.04%</b>
Rubber	<b>0.12%</b>

**CALCULATION OF BETA, (SYSTEMATIC, UNSYSTEMATIC RISK):** The calculation is done to find out the level of risk in both the exchanges, and also the level of systematic and unsystematic risk on all the commodities taken as a sample.

MCX Commodities	Beta	sys risk	un sys
Wheat	-0.286343	0.0000073	0.0000975
Soya	0.070483	0.0000004	0.0000303
Silver	0.156883	0.0000022	0.0000961
Gold	0.096893	0.0000008	0.0000172
Rice	-0.011060	0.0000000	0.0000899
Chana	0.014090	0.0000000	0.0000636
Gur	0.020366	0.0000000	0.0002390
Turmeric	0.231273	0.0000047	0.0004243
yellow peas	0.073511	0.0000005	0.0003108
Rubber	0.014090	0.0000000	0.0000636

NCDEX Commodities	Beta	sys risk	un sys
Wheat	-0.286343	0.0000073	0.0000975
Soya	0.070483	0.0000004	0.0000303
Silver	0.156883	0.0000022	0.0000961
Gold	0.096893	0.0000008	0.0000172
Rice	-0.011060	0.0000000	0.0000899
Chana	0.014090	0.0000000	0.0000636
Gur	0.020366	0.0000000	0.0002390
Turmeric	0.231273	0.0000047	0.0004243
yellow peas	0.073511	0.0000005	0.0003108
Rubber	0.014090	0.0000000	0.0000636

**FINDINGS :** The correlations between the returns of all the selected commodities on both of the exchanges were examined. It was found that there was significant strong correlation (almost equal to +1) between commodity prices on the two exchanges, indicating that prices on the two exchanges were very closely related. Furthermore, there was significant correlation between certain pairs of commodities. The commodities which are to be found significantly correlated are as follows

- 1] soya-gur                  2] rubber-chana                  3] peas-turmeric.

With regard to the first pair of combination of commodities of soya-gur there is a correlation of 0.207418 (with a significance of 0.018705). In the next pair of commodities consisting of rubber-chana there is a correlation of 1.000000 (with a significance of 0.000000). For the last pair of commodities of peas-turmeric there is a correlation of 0.334551 (with a significance of 0.000314).

## V CONCLUSION

The growing importance of the commodity markets are increasing day by day. The growing technology is contributing heavily for the growth of commodity markets. The study has showed the importance of commodity markets. A commodity futures contract is a tradable standardized contract, the terms of which are set in advance by the commodity exchange organizing trading in it. The futures contract is for a specified variety of a commodity, known as the "basis," though quite a few other similar varieties, both inferior and superior, are allowed to be deliverable or tender able for delivery against the specified futures contract. The Commodity market in India, its methodology of trading, and the institutions involved in the process of investment in commodities have revolutionized the investment decisions for a trader, providing a new alternative for equity trading and investment in India. Although the prices of commodities traded in the two exchanges are strongly related, it is possible with particular pairs of selected commodities to make profit while trading in commodity exchange. There can be an arbitrage opportunity between the two exchanges because of which an investor can trade on the exchanges which gives maximum return on the pair of commodities selected upon.

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