



## AN ANALYTICAL STUDY OF NATIONAL COMMODITY EXCHANGES IN INDIA

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### Abstract

Commodity futures trading in India has a long and old history, India's first commodity exchange was established in 1875 with the Bombay Cotton Trade Association. Futures market in bullion was began to emerge in Mumbai in 1920. Currently, in India, there are 22 recognized commodity exchanges, of which the six national level electronic multi-commodity exchanges are: NMCE, (Ahmadabad); MCX, (Mumbai); NCDEX, (Mumbai); ICEX, (Mumbai); ACE, (Ahmadabad); and UCX, (Mumbai). India has experienced phenomenal growth in the commodity derivatives markets since 2003, once the Government lifted restrictions on futures trading. At present, there are 6 National Level Commodity Exchanges operates in India. Secondary data collected from books, journals, magazines websites of Forward Markets Commission (FMC) and national level commodity exchanges in India for the period 2009-10 to 2013-14. This paper is an attempt to investigate for the structure and performance of commodity exchanges in India. MCX is the world's largest future's commodity exchange in Silver, Gold, and Crude Oil. The national exchanges accounted for 99.72% of the turnover of commodity futures contracts traded in India during Financial Year 2013-14. MCX alone had a market share of 84.89% in 2013-14.

### Introduction

The concept of organized futures trading in commodities evolved in the middle of the 19th century. And during the first half of the 20th century, there were several commodity exchanges trading in jute, pepper, turmeric, potatoes, sugar, etc. Gradually, the farmers (sellers) and dealers (buyers) started committing to exchange the produce for cash in future. The commodity exchanges have, as part of its business models, had to create the necessary infrastructure to conduct their operations. Commodity markets are meeting places of buyers and sellers and the commodity exchange in Indian mainly trade bullion, huge metals, energy and agricultural produced. Unlike developed countries, foreign currency and stock indices are not part of our commodity market and are unlikely to be integrated in near future.

At present, in India, there are 22 commodity exchanges, of which the six national level commodity exchanges. The national level exchanges include the National Multi Commodity Exchange of India Limited (NMCE), Ahmadabad; Multi Commodity Exchange of India Limited (MCX), Mumbai; National Commodity and Derivatives Exchange of India Limited (NCDEX), Mumbai; Indian Commodity Exchange Limited (ICEX), Mumbai as a nation-wide multi commodity exchange, Ace Commodity and Derivatives Exchange Limited, (ACE) Ahmadabad and recently, established Universal Commodity Exchange Limited, (UCX) Mumbai.

### Objectives of the study

- To study the evolution and organizational structure of commodity exchanges in India.
- To analyze the performance of commodity exchanges in India (2009-10 to 2013-14).

### Review of Literature

This study is equipped with comprehensive review on commodity exchanges. Abundance literature on commodity futures trading in general gives theoretical explanation for the emergence of commodity exchanges in India.

**1.M. Dhanbhakya and P. Kamalnath (2010)** in his paper "Financial Performance of National Commodity Exchange Companies (NMCE, MCX, and NCDEX) in India: A Profitability and Efficiency Focus" attempted to study is an investigation into the present status, growth constraints and developmental policy alternatives for commodity futures market in India. The empirical findings of the study in the context of commodity future as a diversifying agent to the equity portfolio are twofold. The study also found that MCX Energy futures do not add any diversification benefit to the portfolio of equities whereas MCX Agri futures are found to be the best diversifying agents.

**2.Ghosh M. (2011)** in his study "Agricultural Policy Reforms and Spatial Integration of Food Grain Markets in India" investigated the impact of agricultural policy reforms on spatial integration of rice and wheat markets in India. The results indicate that the extent of intra- and inter-state spatial integration of these markets has improved during the post-reform period relative to the pre-reform one. The results suggest that in well-integrated food markets, this type of famine could be avoided by suitably designing agricultural price policy and rationalizing government activities in the food economy.

**3.S. Selvanthand V. Manohar (2013)** in his paper “Online Trading-An Insight to Commodities Trade with Special Reference to India“ examine that the online trading involves investment activity which takes place over Internet and it does not require physical inclusion of the brokers. As the servers of the online trading portal are connected all time to the stock exchanges and designated banks the order processing is done in real time and investor can also have updates on the trading Even though online trading in India has slowed down somewhat at the present time, it is our belief that it will pick up speed the future. **4.M. Venkateswariand Ravindran (2014)** in his study “Commodity Derivatives Exchanges in India: A study of selected Exchanges” examines the Derivatives provide an effect solution to the problem of risk caused by uncertainty and volatility in the underlying assets. In India, the emergence and growth on the derivatives markets is relatively a recent phenomenon. The study is undertaken to analyze the trend of and progress of Commodity Derivatives Trading in NCDEX and MCX and evaluate the performance of these two commodity exchanges.

**5.S Poornima, and Deepthy K (2015)** in his paper “Commodity Market in India” investigated the Commodity market has a great potential to become a separate asset class for market savvy investors, arbitrageurs and speculators. The retail investors should understand the risk and advantages before entering into commodity market. The study attempts to throw light on commodity market in India and to find out the impact of the SEBI-FMC merger and also to analyze future growth prospects and challenges of Indian commodity markets.

## Research Methodology

### Data collection

Data used in the study is based on secondary data. Secondary data is collected from books, journals, magazines, newspapers and websites. The present study is based on the analytical and descriptive research. There is no tool applied due to turnover, values fluctuation from year to year. The National level commodity exchanges in India namely NMCE, MCX, NCDEX, ICEX, ACE, and UCX were selected for the study. The study mainly depends upon the published secondary data. Secondary data are collected from the books related topics, articles, reputed journals; newspapers articles, websites, various reports and records issued and maintained by the Government of India are also used in the study.

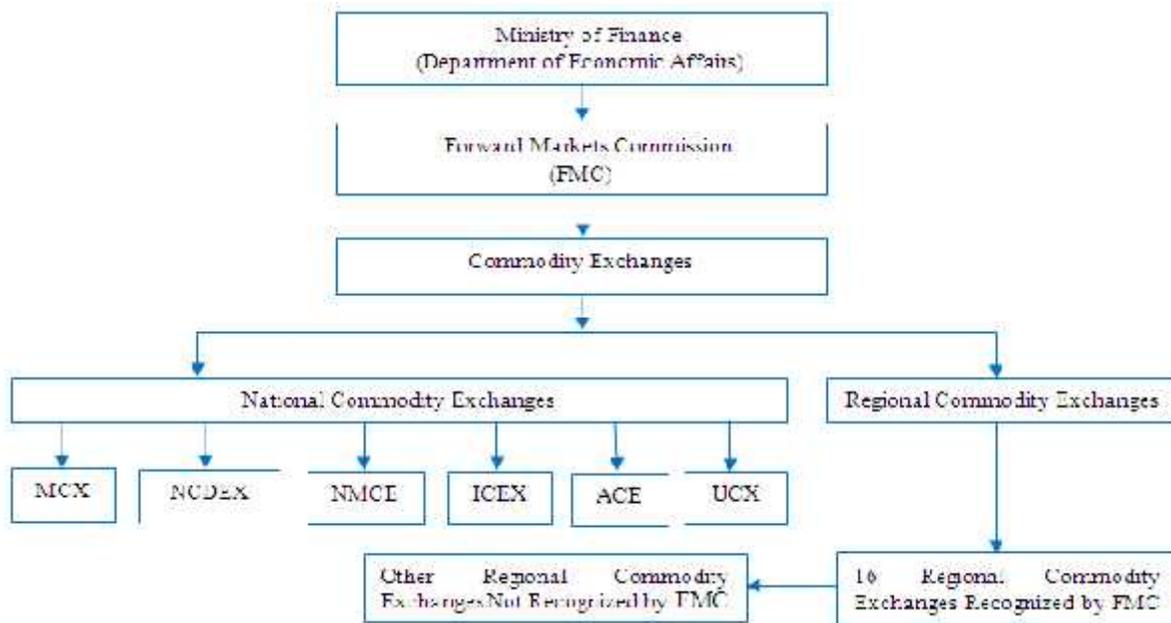
### Evolution and history of indian commodity exchanges

The evaluation of the organized futures market in India commenced in 1875 with the setting up of the Bombay Cotton Trade Association Ltd. In India, the first commodity futures exchange was set up in 1875, in Mumbai, under the aegis of Bombay Cotton Traders Association. Subsequently, many exchanges came up in different part of the country for futures trade in various commodities. The Futures trading in oilseeds started in 1900 with the establishment of the GuaratiVyapariMandli, which carried on futures trading in groundnut, castor seed and cotton. Futures’ trading in wheat was existent at several places in Punjab and Utter Pradesh. But wheat futures market began at Hapur in 1913. Futures trading in bullion began in Mumbai in 1920 and later similar markets came up at Rajkot, Jaipur, Jamnagar, Kanpur, Delhi and Calcutta.

In 2002-03, The Government of India took two steps that gave a fillip to the commodity markets. The first one was setting up of nationwide demutualized multi commodity exchanges and the second one was expansion of list of commodities permitted for trading. Currently there are six National Level Commodity Exchanges and 23 regional exchanges operating in India. The national level exchanges include National Multi Commodity Exchange of India Ltd., (NMCE), Ahmadabad; Multi Commodity Exchange of India Ltd., (MCX), Mumbai; The National Commodities and Derivatives Exchange Ltd., (NCDEX), Mumbai; which have been working since 26th November 2002, 10th November 2003 and 15th December 2003 respectively. NCDEX Spot Exchange Ltd., (NSPOT) is an electronic spot exchange in India, set up by NCDEX on October 18, 2006. NSPOT offers an electronic trading platform for trading in a host of commodities, both agricultural and non-agricultural, to various market participants, primary producers, including farmers, traders, processors, etc. MCX has also set up the National Spot Exchange Ltd., (NSEL) in October 2008. The mission of NSEL is to develop a common Indian market, by setting up a national level electronic spot market and providing state-of art trading, delivery and settlement facilities in various commodities, which can be accessed from across the country. Indian Commodity Exchange India Ltd., (ICEX), Mumbai as a nation-wide multi commodity exchanges working in 2009. ACE Commodity and Derivatives Exchange Ltd., Ahmadabad was granted recognition on 10th August, 2010. ACE became a National Exchange by upgrading itself from a Regional Exchange. The Ministry of Consumer Affairs, Food & Public Distribution, GOI, vide Notification dated 30th August, 2012, granted recognition to the Universal Commodity Exchange Ltd., (UCX), Mahape, Navi Mumbai on a permanent basis in respect of forward contracts in all the commodities in which Section 15 is applicable and the commodities to which neither Section 17 nor Section 15 of the Forward Contracts (Regulation) Act, is applicable. UCX is the India’s 6th National Commodity Exchange Limited.

### Organizational Structure of Commodity Exchanges in India

At present, in India, there are three tiers of regulations of forward/futures trading system, consist the Government of India at set the top, followed by the Forward Markets Commission (FMC) and then the Commodity Exchanges. The commodity futures traded in commodity exchanges are regulated by the Government under the Forward Contracts Regulations Act, 1952 and the Rules framed there under. The regulator for the commodities trading is the Forward Markets Commission, situated at Mumbai, which comes under the Ministry of Finance, Department of Economic Affairs, (Government of India). In the hierarchy of Indian commodity exchanges market, the Forward Markets Commission (FMC) is a statutory body set up the Forward Contracts (Regulation) Act. 1952. Futures trading and the Forward Contracts (Regulation) Act of 1952 were shifted to Department of Economic Affairs (DEA) from Department of Consumer Affairs (DCA). In September 2013, the regulatory body FMC has been brought under the control of Ministry of Finance. The structure of commodity exchanges market in India is as follow:



The commodity exchanges under the Forward Markets Commission are divided into national and regional commodity exchanges. At present, there are 6 national level commodity exchanges and 23 regional level commodity exchanges operating in India and carrying out futures trading activities in as many as 146 commodity items. As per the recommendation of the Forward Markets Commission (FMC), the Government of India recognized the 6 National Level Commodity Exchanges; these are NMCE, MCX, NCDEX, ICEX, ACE, and UCX.

### Commodity Exchanges in India

India has experienced phenomenal growth in the commodity derivatives markets since 2003, once the Government lifted restrictions on futures trading. After Government approval for operation of multiple exchanges, the exchange environment has become highly competitive in terms of product development and business strategies. Private sector initiatives, seeking to tap the potential value of agricultural trading, have become key catalysts in this process. Presently, in India, there are 22 commodity exchanges, of which the six national level multi commodity exchanges, and other regional commodity exchanges.

### National Commodity Exchanges

In India, there are six national level commodity exchanges are described below:

(1) **National Multi-Commodity Exchange of India Limited (NMCE)**: National Multi Commodity Exchange of India Ltd., India's first state-of art demutualised, electronic, multi- commodity exchange. It is based in Ahmadabad. National Multi Commodity Exchange Ltd. (NMCE), promoted by commodity-relevant public institution viz., Central Warehousing Corporation (CWC), National Agricultural Cooperative Marketing Federation of India (NAFED), Gujarat Agro-Industries Corporation Ltd., (GAICL), Gujarat State Agricultural Marketing Board (GSAMB), National Institution of Agricultural Marketing (NIAM), Neptune Overseas Ltd., (NOL) and PNB Bank took equity of the Exchange to establish that linkage. Contracts traded on NMCE are based on commodities that in clued cash crops, food grains, plantations, spices, oil

seeds, metal and bullion, among others. **(2) Multi Commodity Exchange of India Ltd., (MCX):** MCX is an independent, and demutualised online multi-commodity exchange started in 2003. It is based in Mumbai. The exchange is promoted by Financial Technologies India Limited, SBI and its associations, NABARD, NSE, Fid Fund (Mauritius) Ltd., an affiliate of Fidelity International-Corporation Bank, Union Bank of India, Canara Bank, Bank of India, Bank of Baroda, HDFC Bank, SBI Life Insurance Co. Ltd., ICICI Ventures, IL&FS and Merrill Lynch. MCX offers futures trading in agricultural commodities, bullion, ferrous and non-ferrous metals, pulses, oil and oilseeds, energy, plantations spices and other soft commodities. **(3) National Commodity and Derivatives Exchange Limited (NCDEX):** NCDEX is an independent and demutualised online commodity exchange that also started in 2003. It is based in Mumbai. NCDEX is promoted by national level institutions like LIC, NABARD, NSE, PNB Bank, CRISIL Ltd., Indian Farmers Fertilizer Co. Ltd., (IFFCO), Canara Bank, Goldman Sachs and ICE. NCDEX lists contracts on a host of agricultural commodities, besides metals, plastics, gold, and energy products.

**(4) Indian Commodity Exchange Ltd. (ICEX):** ICEX incorporated in 2009, ICEX is National online derivative exchange of India which has established a transparent, time-tested and reliable trading platform. It has its headquarter in Mumbai and many regional offices across from 11.82% to 9.99% by the 2009-10 and 2011-12, similarly share in value of trade 10.00% to 11.30% by 2012-13 to 2013-14. While the NMCE exchange share also decreased its share in value of total commodities traded from 2.94% to 1.00% from 2009-10 to 2012-13, while share in value of trade 1.51% in 2014. The National Exchanges, which the adoption of modern technology, have spread the facility of commodity futures trading across the country. MCX recorded the highest turnover in terms of value of trade from 2009-10 to 2013-14 followed by NCDEX, NMCE, and ICEX. the country which cover agricultural region with a objective to encourage farmers, traders and actual users participation to hedge their position against the extensive price fluctuations. ICEX is promoted by India bulls financial Services Ltd., Reliance Exchange Next Infrastructure Ltd., and MMTC Ltd., KRIBHCO, Indian Potash Ltd., and IDFC among others as its partners. It deals with the commodity trading of bullions, Base Metals, energy and Agricultural Commodities. **(5) ACE Derivatives and Commodity Exchange Ltd. (ACE):** ACE Derivatives Exchange was set up in 2010. It has registered office at Ahmadabad and corporate office at Mumbai. ACE promoted by Kotak Mahindra Group, The Haryana State Cooperative Supply & Marketing Federation Ltd. (HAFED) is an apex State Co-operative service and marketing institution, under the patronage and sponsorship of the Government of Haryana, Bank of Baroda, Corporation Bank and Union Bank of India. It facilitates trading in oil and oilseeds, pluses, Guar Gum, Sugar and in Fiber. **(6) Universal Commodity Exchange Limited (UCX):** Universal Commodity Exchange Ltd., was set up in 2012. UCX prompted by institutions such as IDBI Bank, Indian Farmers Fertilizer Cooperative Ltd., (IFFCO), NABARD, Rural Electrification Corporation Ltd., (REC), and COMMECH Technology. The Exchange facilitates futures trading in gold, silver, crude oil, channa, rubber, mustard seed, soya bean, refined soya oil and turmeric.

#### Analysis of The Performance of National Commodity Exchanges

**Table 1: Total Turnover of Commodity Exchanges- (2009-10 to 2013-14)**

The share of Commodity Exchanges in the total value in Rs. Cr. and % of the commodities traded	2009-10 Value in Cr.	2010-11 Value in Cr.	2011-12 Value in Cr.	2012-13 Value in Cr.	2013-14 Value in Cr.
<b>EXCHANGES</b>					
<b>MCX</b>	6393302.17 (82.34)	98,41,502.90 (82.36)	15597095.47 (86.05)	14881057.12 (87.00)	8611449.07 (84.89)
<b>NCDEX</b>	917584.71 (11.82)	14,10,602.21 (11.81)	1810210.1 (9.99)	1598425.87 (10.00)	1146328.09 (11.30)
<b>NMCE</b>	227901.48 (2.94)	2,18,410.90 (1.83)	268350.95 (1.48)	176570.86 (1.00)	152819.01 (1.51)
<b>ICEX</b>	136425.36 (1.76)	3,77,729.88 (3.16)	258105.67 (1.42)	169897.14 (1.00)	85664.19 (0.84)
<b>ACE</b>	--	30,059.63 (0.25)	138654.61 (0.76)	172010.18 (1.00)	46756.74 (0.46)
<b>UCX</b>	--	--	--	--	73013.19 (0.72)
<b>Others</b>	89540.33 (1.14)	70636.83 (0.59)	53686.98 (0.30)	48878.92 (0.01)	28764.69 (0.28)
<b>GRAND TOTAL</b>	<b>7764754.050</b> <b>(100.00)</b>	<b>11948942.35</b> <b>(100.00)</b>	<b>18126103.78</b> <b>(100.00)</b>	<b>17046840.09</b> <b>(100.00)</b>	<b>10144794.98</b> <b>(100.00)</b>

### Multi Commodity Exchange of India Limited, (MCX)

**Table 2: Commodities Traded in Value from 2009-10 to 2013-14 in MCX 2009-10**

Commodities Traded	2009-10 Value in Cr.	2010-11 Value in Cr.	2011-12 Value in Cr.	2012-13 Value in Cr.	2013-14 value in Cr.
GOLD	1922207.39 (30.07)	2469246.20 (25.09)	4224785.993 (27.09)	3720129.35 (25.00)	2482438.18 (28.83)
SILVER	1141707.31 (17.86)	2700017.25 (27.44)	5738871.122 (36.79)	4086933.38 (27.46)	1780756.98 (20.68)
CRUDE OIL	1219045.51 (19.07)	1764067.84 (17.92)	2463336.416 (15.79)	2981891.98 (20.04)	1794312.34 (20.84)
COPPER	903409.43 (14.13)	1145074.86 (11.64)	1437082.176 (9.21)	1443348.37 (9.70)	776666.28 (9.02)
NATURAL GAS	322249.15 (5.04)	--	260916.044 (1.67)	672892.89 (4.52)	655322.01 (7.61)
NICKEL	275277.35 (4.31)	464577.93 (4.72)	385334.138 (2.47)	432047.18 (2.90)	187172.77 (2.17)
ZINC	260172.12 (4.07)	389457.78 (3.96)	--	416834.42 (2.80)	228653.60 (2.66)
LEAD	--	306414.62 (3.11)	259508.657 (1.66)	616192.21 (4.14)	398401.56 (4.63)
ALUMINIUM	--	--	--	229582.03 (1.54)	134964.85 (1.57)
COTTON	--	--	--	--	62439.13 (0.73)
CPO	--	--	--	106409.66 (0.72)	--
OTHERS	349233.91 (5.46)	602646.43 (6.12)	827260.922 (5.32)	174795.65 (1.18)	110321.38 (1.26)
<b>TOTAL</b>	<b>6393302.17 (100.00)</b>	<b>9841502.91 (100.00)</b>	<b>15597095.468 (100.00)</b>	<b>14881057.12 (100.00)</b>	<b>8611449.07 (100.00)</b>

### Conclusion

The present study is an investigation into the present status, growth and developmental policy alternatives for commodity exchanges in India. India is traditionally an agrarian economy; therefore, instability of commodity prices has always been a major concern of the producers as well as the consumers. In India, two-third of the one billion populations depends on agricultural commodities. Commodity futures markets are a part and parcel of a program for agricultural liberalization. Many agricultural economists understand the need of liberalization in the sector. Futures markets are an instrument for achieving that liberalization. However the recent attempt by the Government to permit National level Multi-Commodity Exchanges has indeed given it, a shot in the arm-commodity includes all kinds of goods. The present study is carried out with respect of all six National level commodity exchanges in India namely NMCE, Ahmadabad; MCX, Mumbai; NCDEX, Mumbai; ICEX, Mumbai; ACE, Ahmadabad; and UCX, Mumbai. These exchanges are playing very important role in the trading activities in India. MCX is India's No. 1 commodity exchange.

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