

# Trade Performance of Top 2 National Commodity Exchanges: MCX and NCDEX

K. Prabhakar Rajkumar, M. Thilaga

**Abstract:** *The commodity futures trading is supported to all sectors of the economy, particularly farmers and consumers. Commodity producers optionally store some production for the future and go for futures contracts to hedge the uncertainty of the futures commodity price. Apart from that Indian commodity market requires major investment and commercial activities in the National and regional markets. But the demand and supply, Indian verses other currencies, export and import parity and current scenario news are the main factors are affecting the commodity trading. This study is focused the second boom period from 2011 to 2018 and identify the trade performances of number 1 and number 2 national commodity exchanges in India.*

**Keywords:** *Commodity Futures Market, Agriculture Commodity, Metals Commodity, Bullion Commodity, Energy Commodity.*

**JEL classification:** *G13, G14, G18, G20.*

## I. INTRODUCTION

The performances of commodity futures markets have a significant growth from 2003 onwards. Because, from 2000 onwards the Indian government took the decision to allow the national level online futures exchanges. Commodity futures market plays a vital role in build and rebuild to sustain and continue in India. During the pre independence period the commodity market was like furbelow. In 1952 due to war and natural calamities the essential commodities were pushed up in the shortage level. It resulted most of the commodities was banned to trade in the futures market.

According to Central Intelligence Agency (CAI) in 2017, the contribution of the agriculture sector to the GDP was 15.4 percent. The contribution of agriculture sector in India is higher than the world average level, that is 6.4, percent. When compared to the global agricultural output, India got 7.39 percent. When compared to equities, the commodities futures trading is getting more response. Because in India for agriculture and industrial sectors, the commodities are the essential inputs. Initial stage the regulatory system was in a critical position. Because spot trade is regulated by the Agriculture Product Market Committee (APMC) Acts. This act is used only for state level, and futures trade is regulated by the Union government. Initially the regulatory framework was undertaken by the Forward Market Commission (FMC) established in the year of 1953. But from 28th September 2015 onwards Security and Exchange Board of India (SEBI)

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was undertaken to regulate the commodity derivative market. Jignesh shah and financial technologies promoted National Spot Exchanges Limited (NSEC) suspended trading of all its contracts because of payments crises of over Rs. 5,600 crore. Hence the FMC was merged with SEBI.

## II. OBJECTIVES OF THE STUDY

1. To identify the trade performance of Top two National Commodity Exchanges in India.

Many research articles have conducted on price volatility, price discovery and the relationship between spot and futures price, etc. But no one is doing the research on identifying the trade performance of No.1 and No.2 National Commodity Exchange in India. Hence, the researcher tries to fulfil the gap. This study mainly focuses on the trade performance of No.1 and No.2 commodity Exchanges in India by using the secondary data. For this purpose, yearly data were used from 2011 to 2018 in MCX and NCDX national exchange. These two exchanges all the commodities has divided into four categories, namely, Agriculture, Metals, Bullion and Energy.

## III. REVIEW OF LITERATURE

Many researchers have conducted the research in many aspects on the Indian National commodity exchanges (Gulen and Mayhew 2000) was examined the impact of futures trading on cash price volatility before and after the introduction of futures trading. (Dineshkumar Sharma and meenakshi malhotra 2015) focused on the impact of futures trading on volatility of spot a cash of guar seed. For his study the data were taken from NCDEX. They found when the level of futures trading increases unexpectedly, the volatility of spot prices increases point toward the destabilizing impact of futures trading. (Tarun kumar soni 2014) to analyse the efficiency of futures market in Indian scenario he conducted the test of co-integration, linear and nonlinear causality on Indian agricultural futures contracts. He took four agriculture commodities, namely chena, wheat, soyabean and mize from NCDEX. He found that three out of four futures contracts a long term relationship does exist. (Vishwanathan Iyar and Archana Pillai 2010) discuss the price discovery and convergence in the Indian Commodities market on six commodities from MCX. They found that the price discovery predominantly happening in the futures market and the convergence of information from futures in the spot market has been slow.

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(Ragavendra, Velmufugan and Saravanan have examined the relationship of selected agricultural commodities in India: an efficiency causation analysis and the results show that there is one way casual linkage from futures market to spot market for soyabean and chana commodities. And the bidirectional relationship between futures and spot market for mize, jeera and turmeric commodities.

### IV. ANALYSIS AND DISCUSSION

#### Trends in Commodity Derivatives at MCX

The main purpose of the study is to identify the trade performance of No.1 and No.2 National Commodity Exchanges in India, which dealing Agriculture, Metal, Bullion and Energy commodities at MCX. The following tables and charts are clearly revealed about the trade performance of concern commodity derivatives at MCX from 2010-11 to 2018-19.

**Table-1. Trade Performance of Agri Commodity**

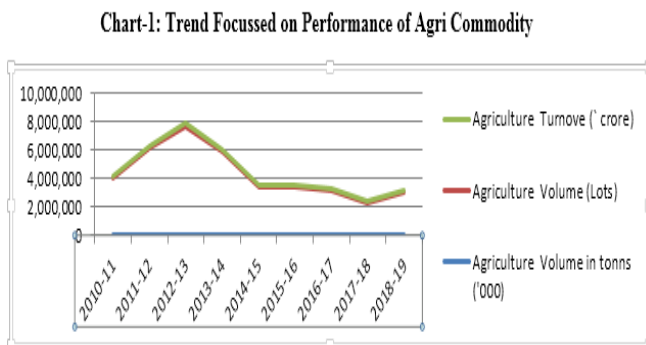
Period	No. of Trading days	Agriculture		
		Volume in tons ('000)	Volume (Lots)	Turnove ( crore)
2010-11	307	27,241	39,67,369	1,14,152
2011-12	310	32,465	61,18,325	1,97,781
2012-13	305	32,926	76,30,359	2,70,295
2013-14	310	20,878	59,05,031	1,71,391
2014-15	255	13,504	33,71,516	1,10,268
2015-16	257	13,961	34,10,594	1,21,699
2016-17	260	15,947	30,87,740	1,39,312
2017-18	254	11,648	23,17,338	1,14,082
2018-19	384	15673	3049133	157031

**Table-2 Trade Performance of Metals Commodity**

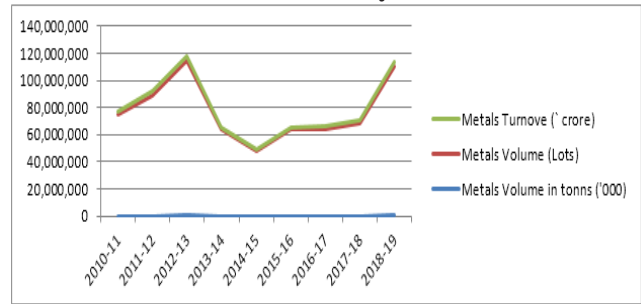
Period	No. of Trading days	Metals		
		Volume in tons ('000)	Volume (Lots)	Turnove ( crore)
2010-11	307	1,24,163	7,41,49,730	25,08,858
2011-12	310	1,18,499	8,88,65,001	27,09,758
2012-13	305	1,51,396	11,39,43,114	31,40,109
2013-14	310	85,674	6,37,97,242	17,26,336
2014-15	255	62,083	4,73,52,037	12,74,213
2015-16	257	89,331	6,38,95,652	15,05,004
2016-17	260	93,078	6,44,21,776	17,53,887
2017-18	254	95,153	6,81,33,042	21,12,532
2018-19	384	155649	1.1E+08	3454905

Source: MCX

**Chart-1: Trend Focussed on Performance of Agri Commodity**



**Chart-2: Trend Focussed on Performance of Metal Commodity**

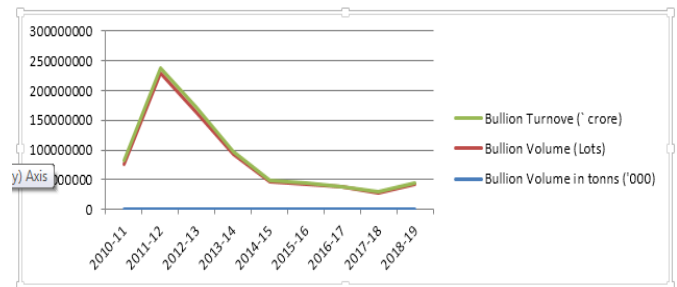


**Table-3. Trade Performance of Bullion Commodity**    **Table-4 Trade Performance of Energy Commodity**

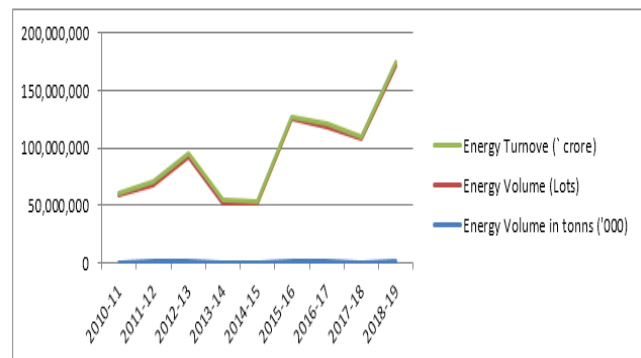
Period	No. of Trading days	Bullion			Period	No. of Trading days	Energy		
		Volume in tons ('000)	Volume (Lots)	Turnove ( crore)			Volume in tons ('000)	Volume (Lots)	Turnove ( crore)
2010-11	307	710	7,65,08,289	51,69,268	2010-11	307	6,31,869	5,81,72,478	20,49,224
2011-12	310	1,011	22,83,44,739	99,63,667	2011-12	310	7,30,401	6,65,26,548	27,25,889
2012-13	305	723	16,22,79,284	78,07,063	2012-13	305	8,16,377	9,11,92,784	36,63,589
2013-14	310	400	9,27,48,201	42,63,195	2013-14	310	4,21,354	5,17,51,062	24,30,527
2014-15	255	240	4,62,94,585	21,53,427	2014-15	255	4,04,556	5,15,57,804	16,45,799
2015-16	257	234	4,26,02,824	20,70,147	2015-16	257	8,07,702	12,43,25,369	19,37,345
2016-17	260	207	3,71,51,550	20,40,270	2016-17	260	6,74,225	11,78,49,477	19,32,191
2017-18	254	164	2,78,40,060	13,63,703	2017-18	254	5,74,029	10,76,34,572	17,92,678
2018-19	384	255	42697200	2120931	2018-19	384	883010	17,03,49,065	3013808

Source: MCX

**Chart-3 Trend Focussed on Performance of Bullion Commodity**



**Chart-4. Trend Focussed on Performance of Energy Commodity**



**Table-5 Overall Trade Performances of all the Commodities**

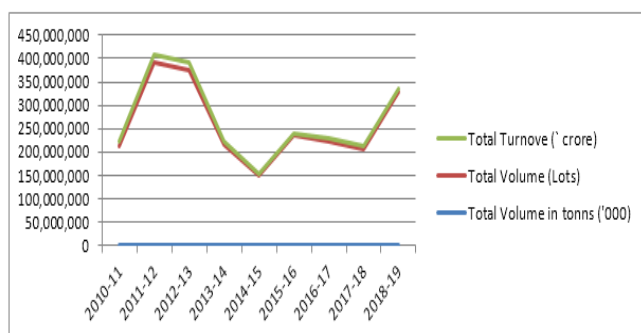
Period	Overall Total		
	Volume in tonns ('000)	Volume (Lots)	Turnove (' crore)
2010-11	7,83,984	21,27,97,866	98,41,502
2011-12	8,82,377	38,98,54,613	1,55,97,095
2012-13	10,01,423	37,50,45,541	1,48,81,057
2013-14	5,28,306	21,42,01,536	86,11,449
2014-15	4,80,383	14,85,75,942	51,83,707
2015-16	9,11,229	23,42,34,439	56,34,194
2016-17	7,83,457	22,25,10,543	58,65,661
2017-18	6,80,995	20,59,25,012	53,82,996
2018-19	10,54,588	32,61,75,148	87,46,674

Source: MCX

Notes: 1. Natural Gas volume are in mm BTU and is not included for computing for total volume and total open interest in '000 tonnes.

2. Conversion factors: Cotton (1 Bale=170 kg), Crude Oil (1 Tonne = 7.33 Barrels)

**Chart-5 Trend Focussed on Overall Trade Performances of all the Commodities**



Here the researcher focused on Agriculture, Metals, Bullion and Energy commodities in MCX and NCDEX from 2010-11 to 2017-18. These four categories include all the commodities which are traded in these two exchanges. And for research purpose the number of trading days, volume ('000 tonnes), volume (lots) and turnover in Rupees was taken. In MCX exchange all the four categories were getting the maximum trade volume and turnover, but in NCDEX exchange the agriculture category only got the maximum trade volume and turnover. When compared to the overall total trade volume and turnover MCX got 1st place and the NCDEX got 2nd place. When compared to four categories wise the MCX trade concentration is almost equal, but the NCDEX maximum trade concentration is agriculture category only. So the NCDEX agriculture, trade contribution is more than the MCX agriculture trade contribution.

If we taken the agriculture category in MCX exchange the year of 2012-13 the trade volume in tonnes was 32,926, the trade volume in lots was 79,30,359 and the turnover was Rs.2,70,295 crore respectively. Likewise the metal category also got the highest trade volume in tonnes volume in lots

and the turnover rupees in crore was 1,51,396 tonnes, 11,39,43,114 lots and Rs.31,40,109 crore. But in the bullion category in the year of 2011-12 got the highest value that is the volume in tonnes was 1,011, the volume in lots was 22,83,44,739 and the turnover was Rs. 99,63,667 crore. When compared to the energy category in the year of 2015-16 got the highest volume in tonnes was 8,07,702 volume in lots 12,43,25,369 and the turnover was Rs 19,37,345 crore. But when we compared the overall total the highest trade volume in tonnes and volume in lots was in the year of 2012-13 10,01,423 and 37,50,45,541 respectively, and in the year of 2011-12 the turnover was Rs.1, 55,97,095 crore.

Trends in Commodity Derivatives at NCDEX

The main purpose of the study is to identify the trade performance of No.1 and No.2 National Commodity Exchanges in India, which dealing Agriculture, Metal, Bullion and Energy commodities at NCDEX. The following tables and charts are clearly revealed about the trade performance of concern commodity derivatives at NCDEX from 2010-11 to 2018-19.

**Table-6. Trade Performance of Agri Commodity**

Period	No. of Trading days	Agriculture		
		Volume in tonns ('000)	Volume (Lots)	Turnove (' crore)
2010-11	307	3,37,770	3,96,10,809	11,09,740
2011-12	310	3,86,759	4,41,73,798	16,64,095
2012-13	304	3,47,242	3,84,29,715	15,57,146
2013-14	309	2,74,282	3,36,46,539	11,38,862
2014-15	255	1,94,255	2,70,99,591	8,70,863
2015-16	257	2,17,736	2,96,60,148	9,98,811
2016-17	260	1,28,790	1,77,50,779	5,96,530
2017-18	248	1,33,172	1,51,87,625	5,89,497
2018-19	373	191402	21983129	847266

Source: NCDEX

**Table-7 Trade Performance of Metals Commodity**

Period	Metals		
	Volume in tonns ('000)	Volume (Lots)	Turnove (' crore)
2010-11	8,998	12,05,418	36,761
2011-12	4,182	8,31,959	30,422
2012-13	782	2,08,002	8,235
2013-14	3	1,349	58
2014-15	2	200	7
2015-16	0	0	0
2016-17	0	0	0
2017-18	Na	Na	Na
2018-19	Na	Na	Na



Chart-6 Trend Focussed on Performance of Agri Commodity

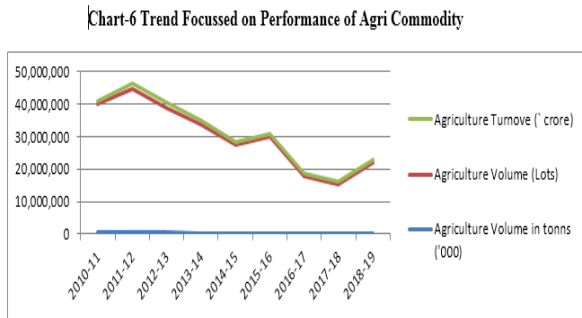


Chart-7 Trend Focussed on Performance of Metals Commodity

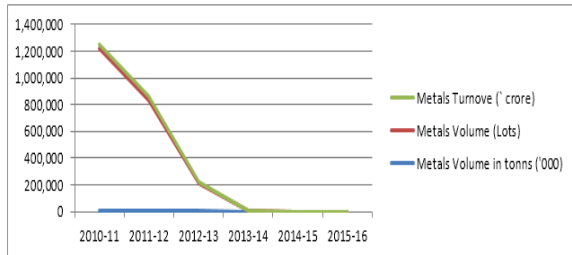


Table-8. Trade Performance of Bullion Commodity

Period	No. of Trading days	Bullion		
		Volume in tonnes ('000)	Volume (Lots)	Turnover (crore)
2010-11	307	1.5	3,62,790	70,928
2011-12	310	2.3	1,43,742	29,438
2012-13	304	0.1	5,068	1,084
2013-14	309	0.1	32,620	6,233
2014-15	255	1.4	1,96,738	32,708
2015-16	257	0.6	94,494	20,778
2016-17	260	0.0	1,182	322
2017-18	248	Na	Na	Na
2018-19	373	Na	Na	Na

Source: NCDEX

Table-9 Trade Performance of Energy Commodity

Period	Energy		
	Volume in tonnes ('000)	Volume (Lots)	Turnover (crore)
2010-11	66,289	47,91,026	1,93,173
2011-12	26,651	19,47,870	86,248
2012-13	8,594	6,29,902	31,960
2013-14	257	18,862	1,175
2014-15	107	7,868	485
2015-16	0	0	0
2016-17	0	0	0
2017-18	Na	Na	Na
2018-19	Na	Na	Na

Chart-8 Trend Focussed on Performance of Bullion Commodity

Chart-8 Trend Focussed on Performance of Bullion Commodity

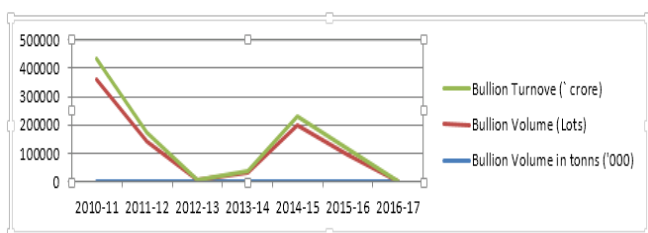


Chart-9 Trend Focussed on Performance of Energy Commodity

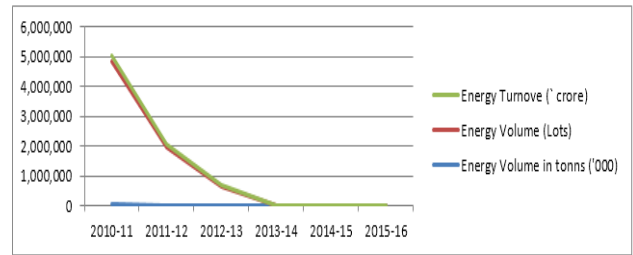
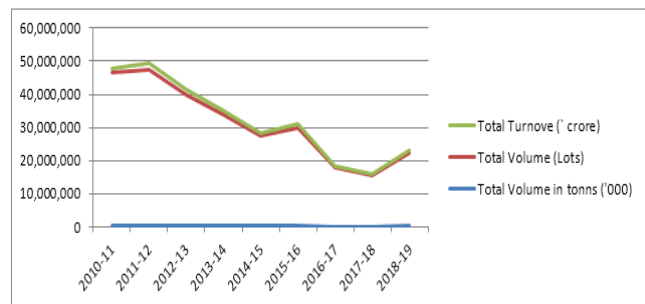


Table-10 Overall Trade Performances of all the Commodities

Period	Overall Total		
	Volume in tonnes ('000)	Volume (Lots)	Turnover (crore)
2010-11	4,13,058	4,59,70,043	14,10,602
2011-12	4,17,594	4,70,97,599	18,10,204
2012-13	3,56,617	3,92,72,687	15,98,426
2013-14	2,74,544	3,36,99,370	11,46,328
2014-15	1,94,365	2,73,04,397	9,04,063
2015-16	2,17,737	2,97,54,642	10,19,588
2016-17	1,28,790	1,77,51,961	5,96,852
2017-18	1,33,172	1,51,87,625	5,89,497
2018-19	1,91,402	2,19,83,129	8,47,266

Chart-10 Trend Focussed on Overall Trade Performances of all the Commodities



In NCDEX if we can take the agriculture category in the year of 2011-12 got the highest trade volume in tonnes 3,86,759, volume in lots was 4,41,73,798 and the turnover was Rs.16, 64,095 crore. When compared to the metal category in the year of 2010-11 got the highest trade volume 8,998 tonnes, 12,05,418 lots and the turnover was Rs.36, 761 crore, but from 2015-16 onwards the trade contracts was observed zero. When we compared to bullion the high volume of tonnes 2.3 was observed in the year of 2011-12 and the volume of lots 3,62,790, and the turnover Rs. 70,928 crore was observed in the year of 2010-11, but from 2017-18 onwards the bullion trade was observed in zero level. When compared to the energy category in the year of 2010-11 the value of tonnes was observed 66,289, the volume of lots was 47,91,026 and the turnover was observed Rs.1,93,173 crore. This category also was stopped to trade from 2015-16 onwards.

V. CONCLUSION

Commodity futures market plays a vital role in building and rebuilding to sustain and continue in India. According to CAI (Central Intelligence Agency) in 2017 the contribution of the agriculture sector to the GDP was 15.4 percent. The contribution of agriculture



sector in India is higher than the world average level that is 6.4 percent. Initially the regulatory framework was undertaken by the Forward Market Commission (FMC) established in the year of 1953. But from 28th September 2015 onwards Security and Exchange Board of India (SEBI) was undertaken to regulate the commodity derivative market. India is the largest producer of agricultural commodities like rice, jeera, turmeric and wheat etc. Hence from 2003 onwards the Indian government allows the national level exchange to make online trading work. When compared to the overall total trade volume and turnover the MCX got 1st place and the NCDEX got 2nd place. When comparing to the agricultural trade category NCDEX has maximum of the trade contract than the MCX. The traders and marketing regulators support is more important to increase the trade performance of MCX and NCDEX.

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