

A STUDY ON PERFORMANCE ANALYSIS OF AGRICULTURE COMMODITIES IN INDIAN MCX MARKET WITH SPECIAL REFERENCE TO CARDAMOM AND COTTON

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ABSTRACT: A study on Performance Analysis of Agricultural Commodities in Indian MCX market (with Special Reference to Cardamom and Cotton) which clearly represents the dominance of Agricultural country like India. The price of the Agro Commodities holds a key position in the price structure of the country. Here, the study of Commodity market witnesses an enormous growth, where Commodity market has the crucial role in developing countries where Agriculture is dominated in Economies. India, one of the top largest countries in the world, engages 57% of the world population and contributes 22% of GDP of the country. The data have been collected from various journals, books, magazines and scholarly articles which are secondary data in nature. The study clearly pictures the performance of Agricultural Commodities in MCX market and examines the comparison of Agricultural Commodities (Cardamom and Cotton) in MCX Market. The tools used in this study are Simple Moving Average. The development of Indian Commodity Market in the past decades has lead the Indian Commodity Exchanges to be at par with the World markets. Overall, this study empirically analyses the Performance of Agricultural Commodities in Indian MCX Commodity Market (with special Reference to Cardamom and Cotton).

Keywords-Commodity Market, Commodity Future Market, Agricultural Commodity Market, Commodity Exchange

I. INTRODUCTION

MCX Commodity Market in India not withstanding its long and tumultuous history, with the globalization and recent measures of liberalization, has witnessed a massive resurgence turning it one of the most rapidly growing areas in the financial sector today. Performance Analysis of Agricultural Commodities in Indian MCX market (with special reference to Cardamom and Cotton). Here the study of Commodity Market witnesses an enormous growth, where Commodity Market has the crucial role in developing countries where Agriculture is dominated in economies. Agriculture including allied activities, accounted for 14.5 per cent of Gross Domestic Product (GDP) at 2004-05 prices, in 2010-11 as compared to 14.7 per cent in 2009-10. Notwithstanding the declining trend in agriculture's share in the GDP, it is critical from the income distribution perspective as it accounted for about 58 percent employment in the country according to Census 2001. Hence growth in agriculture and allied sectors remains a necessary condition for inclusive growth. In terms of composition, out of the total share of 14.5 per cent that Agriculture and allied sectors had in GDP in 2010-11 Agriculture alone accounted for 12.3 per cent, followed by forestry and logging at 1.4 percent and fishing at 0.7 per cent. Reasonable growth in Agriculture is important both from the nutritional point of view as well as to control food prices and overall headline inflation.

II. STATEMENT OF THE PROBLEM

Agricultural production in developing countries is subject to a number of risks that lead to large fluctuations in the output and prices of Agricultural Commodities. These fluctuations result in uncertain incomes for producer and varying availability of work for agricultural laborers. A series of poor harvests can trap households in cycles of debt, severely limiting their ability to purchase basic consumption of goods or invest in the education and healthcare needs of household members. The Futures Market in respect of Agricultural Commodities has led to increase the exposure of Agricultural produce to price and other market risks. This study relates with the Futures Commodities especially Cotton & Cardamom. Various literature works emphasize the importance of Futures Markets for Price Discovery and Price Risk Management. The problems make aggravate by market distortions, tariffs and subsidies in developing countries and the market power in some commodity supply chains of large transnational corporations. The long-term decline in real prices reflects the tendency for productivity and production of commodities.

III. OBJECTIVES OF STUDY

- To know the performance of Agricultural Commodities i.e. Cotton & Cardamom in MCX market for the period of 2014-2017
- To make the performance Comparison between Cardamom & Cotton Commodities in MCX market for the period of 2014-2017

IV. METHODOLOGY

4.1. Sources of Data:-The analysis of financial viability of the Agricultural Commodities is based on secondary data which are collected from various records, documents of MCX Market and also from various journals and websites.

4.2. Period of Study:-The data required for analysis are collected for four years commencing from 2014-2017.

4.3. Tools & Techniques used: Simple Moving Average has been applied to know the performance of Agricultural Commodities is Cotton and Cardamom.

V. SCOPE OF THE STUDY

The present study is about the Performance Analysis of Agricultural Commodities in MCX Market with special reference to Cardamom and Cotton by using the simple moving average and also shows the comparison between Cardamom and Cotton from the year 2014-2017. It issues the long-term decline in real prices which will reflect the tendency for productivity and production of commodities.

VI. ANALYSIS OF THE STUDY

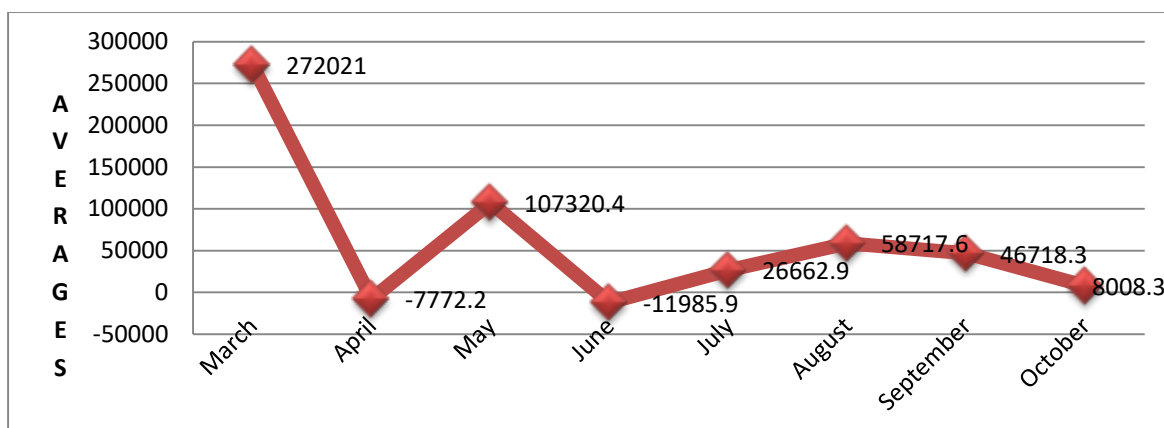
- To know the performance of Agricultural Commodities i.e. Cotton & Cardamom in MCX market for the period of 2014-2017

TABLE-1 Moving Average of Cardamom for the months from January to December 2014
(Rupees in Lakhs)

Month	Closing Price (Y)	4 Month Moving Average	2 period Moving Average	Closing Price (Y1)	Moving Average of Closing Price
January	112241	-	-	-	-
February	325329	-	-	-	-
March	546357	1258300	2743360	274336	272021
April	274373	1485060	2821452	282145.2	-7772.2
May	339001	1336392	2316806	231680.6	107320.4
June	176661	980414	1886469	188646.9	-11985.9
July	190379	906055	1637161	163716.1	26662.9
August	200014	731106	1412964	141296.4	58717.6
September	164052	681858	1173337	117333.7	46718.3
October	127413	491479	1194047	119404.7	8008.3
November	161856	702568	-	-	-
December	249247	-	-	-	-

Source: Calculated

CHART-1 Moving Average of Cardamom for the year 2014



Source: www.mcx.com

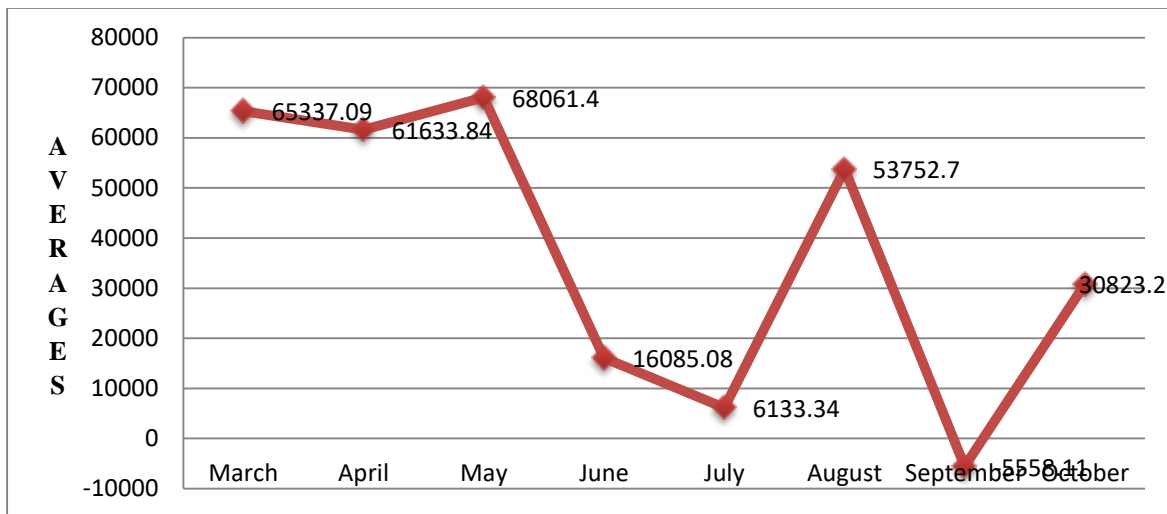
The above table interprets the moving average of Cardamom for the year 2014. The graph represents the averages for 12 months. The highest is Rs.272021 lakhs for the March 2014 and the lowest is Rs.-11985.9 lakhs at the month of June. The averages are fluctuating for the year 2014.

Table-2 Moving Average of Cardamom for the months from January to December
(Rupees in Lakhs)

Month	Closing Price (Y)	4 Months Moving Average	2 Period Moving Average	Closing Price (Y1)	Moving average of closing price
January	186400.29	-	-	-	-
February	171650.7	-	-	-	-
March	172884.80	647655.71	121063.2	121063.2	65337.09
April	116719.24	562976.66	110016.9	110016.9	61633.84
May	145867.20	537193.12	104823.4	104823.4	68061.4
June	146732.83	511041.07	100634.8	100634.8	16085.08
July	100986.03	495307.3	95587.9	95587.9	6133.34
August	66986.49	460572.5	92114.5	92114.5	53752.7
September	90513.54	405218.8	72544.6	72544.6	-5558.11
October	61742.07	320228.1	59690.28	59690.28	30823.2
November	57432.62	276674.7	-	-	-
December	101721.24	-	-	-	-

Source: Calculated

Chart-2 Moving Average of Cardamom for the year 2015



Source: www.mcx.com

The above table interprets the moving averages of cardamom for the year 2015. The highest is Rs.68061.4 lakhs and lowest is -5558.11 lakhs. The averages are fluctuating for the year 2015.

Table-3 Moving Average of Cardamom for the month from January to December 2016
(Rupees in Lakhs)

Month	Closing Price (Y)	4 Months Moving Average	2 period Moving Average	Closing Price (Y1)	Moving Average of Closing Price
January	51377.9	-	-	-	-
February	121543	-	-	-	-
March	110677	372302.9	779069.9	77906.9	-26529
April	88705	406767	742959	74295.9	47247.1
May	85842	336192	604757.5	604757.5	50201.2
June	51268	268565.5	488131.3	488131.3	39891.9
July	42750.5	219565.2	388728.6	388728.6	46969.2
August	39704.7	169163.4	314488.9	314488.9	19819.2
September	35440.2	145325.5	277894.4	277894.4	14961.1
October	27430.1	132568.9	279554.5	27955.45	11749.3
November	299933.9	146985.6	-	-	-
December	54121.4	-	-	-	-

Source: Calculated

Chart-3 Moving Averages of Cardamom for the year 2016



Source: www.mcx.com

The above chart interprets the moving averages of Cardamom for 2016. The highest value of Cardamom in the year 2016 is on May month. The lowest value on March 2016 shows the difference enormously.

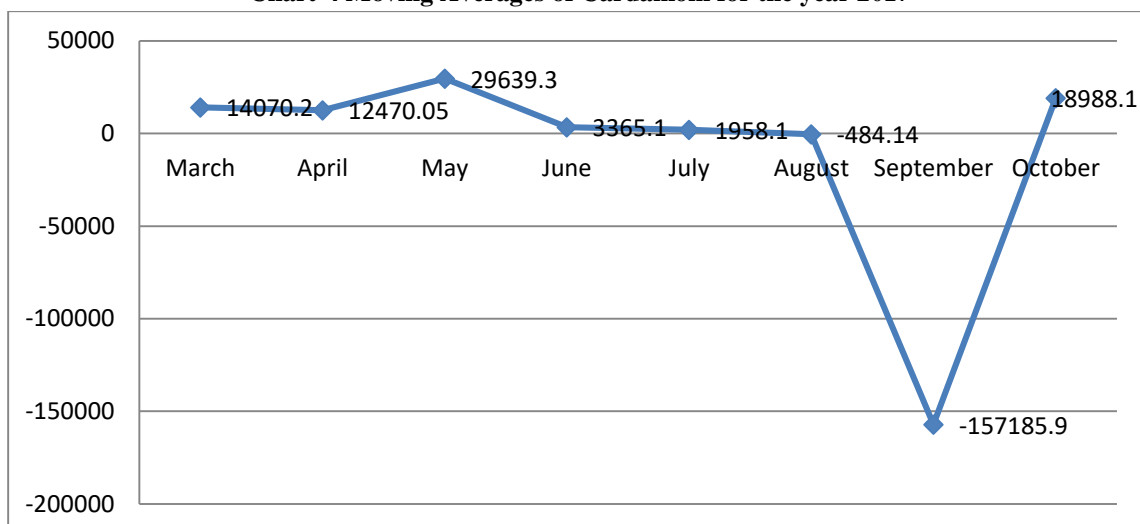
Table-4 Moving Average of Cardamom for the month from January to December 2017

(Rupees in Lakhs)

Month	Closing Price (Y)	4 Months Moving Average	2 period Moving Average	Closing Price (Y1)	Closing Price of Moving Average
January	31363.9	-	-	-	-
February	25872.3	-	-	-	-
March	17745.3	92990.4	172937.8	17293.7	14070.2
April	18008.9	79947.4	134022.5	13402.25	12470.05
May	18320.9	54075.1	118940.8	11894.08	29639.3
June	15742.06	64865.7	146438.8	14643.8	3365.1
July	12793.9	81573.1	163628.3	16362.8	1958.1
August	34716.5	82055.2	162262	16226.2	-484.14
September	18802.8	80206.8	169979.8	169979.8	-157185.9
October	13893.6	89773	157284.9	15728.4	18988.1
November	22360.1	67511.9	-	-	-
December	12455.4	-	-	-	-

Source: Calculated

Chart-4 Moving Averages of Cardamom for the year 2017



Source: www.mcx.com

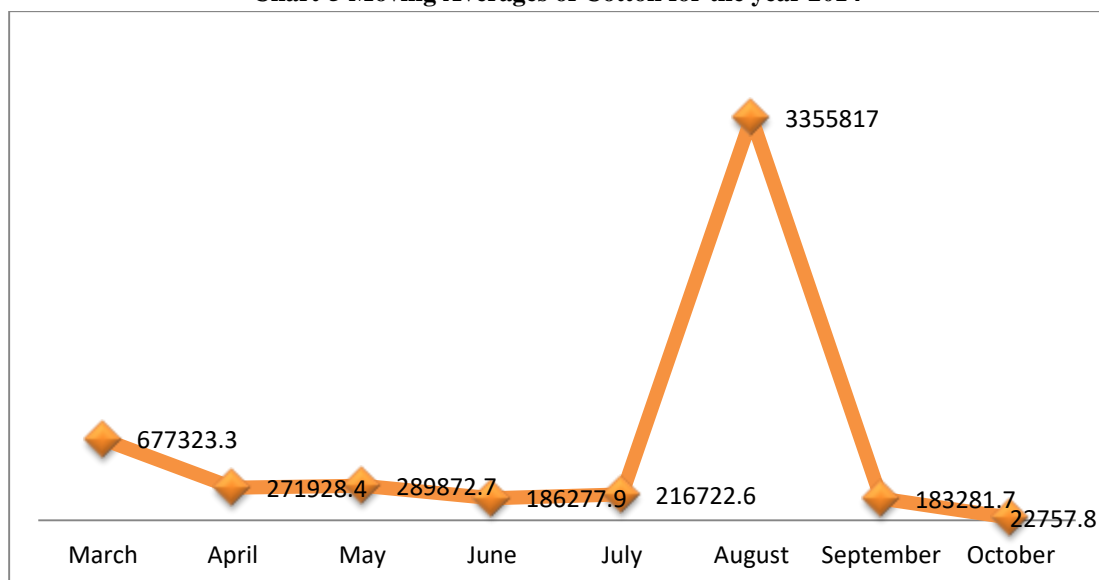
The above table interprets the moving average of Cardamom for the year 2016. The highest market value reaches in the May month and the lowest in September. The forecast of the Cardamom for the year 2016 is not up to the expected level.

Table-5 Moving Average of Cotton for the month from January to December 2014
(Rupees in Lakhs)

Month	Closing Price (y)	4 months Moving Average	2 Period Moving Average	Closing Price (Y1)	Closing Price of Moving Average
January	126.413115.9	-	-	-	-
February	698771.8	-	-	-	-
March	652845.4	3053723.9	5357926.4	535792.6	677323.3
April	488990.8	2304202.5	4268434.5	426843.4	271928.4
May	463594.5	1964232	3629727.8	362972.7	289872.7
June	358801.3	1665495.8	3027129.7	302712.9	186277.9
July	354109.2	1361633.9	2468719.9	246871.9	216722.6
August	185128.9	1107086.07	2029843.8	202984.3	3355817
September	209046.67	922757.81	1708275.6	170827.5	183281.7
October	174473.04	785517.8	1623710.9	162371.0	22757.8
November	216869.2	838193.11	-	-	-
December	237804.2	-	-	-	-

Source: Calculated

Chart-5 Moving Averages of Cotton for the year 2014



Source: www.mcx.com

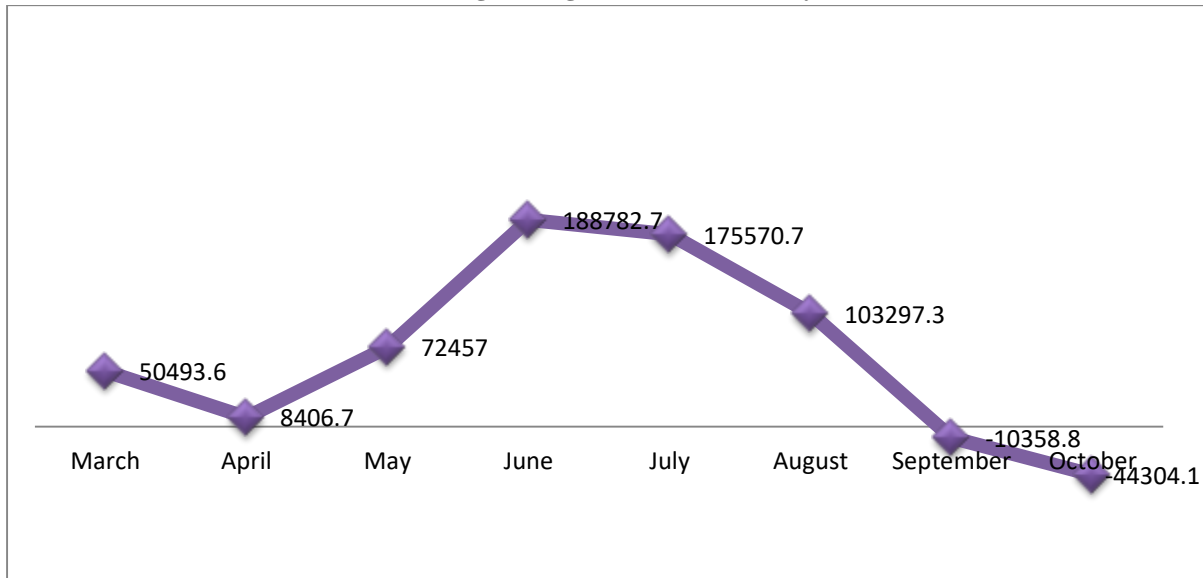
The above table interprets the moving averages of Cotton the highest of Rs.3355817 lakhs in month of August and the lowest is Rs.22757.8 lakhs in the month of October. The performance of Cotton in MCX commodity market the values are not up to the satisfactory level.

Table-6 Moving Average of Cotton for the month from January to December 2015
(Rupees in Lakhs)

Month	Closing Price (Y)	4 Months Moving Average	2 Period Moving Average	Closing Price Y1	Closing Price of Moving Average
January	28374645	-	-	-	-
February	239798.4	-	-	-	-
March	282572.6	1159132.9	2332529.1	233252.9	50493.6
April	353015.4	1173396.2	2313917.4	231391.7	8406.7
May	298009.8	1140521.2	2101156.2	210115.6	72457
June	206923.4	960635	1672327.1	167232.7	188782.7
July	102686.4	711692.1	1224390.1	122439.01	175570.7
August	104072.5	512698	1036261.1	103626.1	103297.3
September	99016.18	523563.4	1130452.6	113045.2	-10358.8
October	217788.43	606889.2	1483766	148376.6	-44304.1
November	186012.16	876876.84	-	-	-
December	374060.10	-	-	-	-

Source: Calculated

Chart-6 Moving Averages of Cotton for the year 2015



Source: www.mcx.com

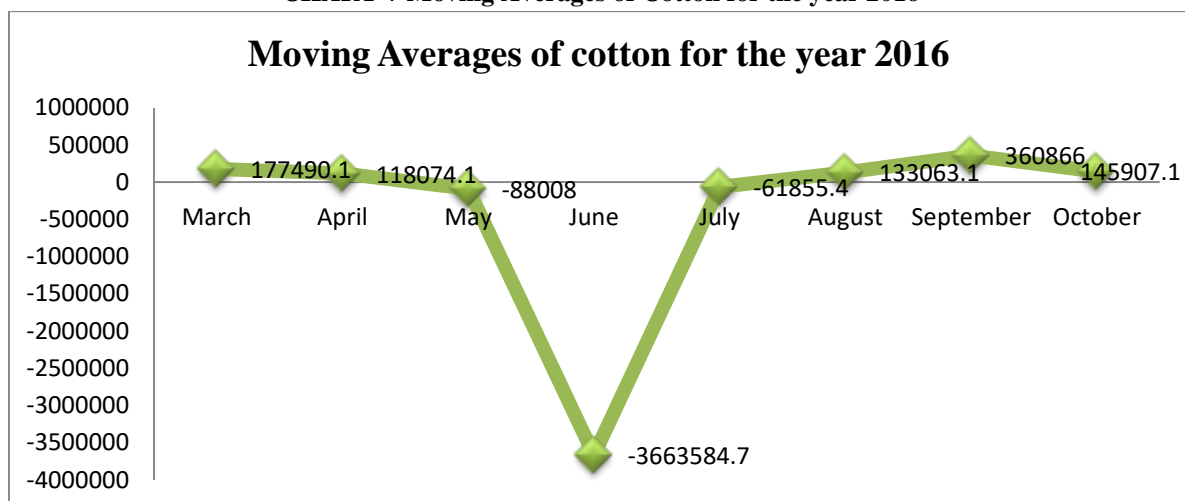
The above table interprets the moving averages of Cotton for the year 2015. The highest value of Cotton rises in the month of June. And the lowest of Cotton decreases in the month of September. The averages are not beyond the level the performance should be increased gradually in future outfits.

Table-7 Moving Average of Cotton for the month from January to December 2016
(Rupees in Lakhs)

Month	Closing Price (Y)	4 Months Moving Average	2 Period Moving Average	Closing Price (Y1)	Closing Price of Moving Average
January	469701.9	-	-	-	-
February	411211.2	-	-	-	-
March	263331.3	1520087.3	2922118.5	292211.8	177490.1
April	375842.9	1402031.2	2931371	293137.1	118074.1
May	351645.8	1529339.8	3513393.6	351339.3	-88008
June	538519.8	1984053.8	4039427.6	403942.7	-3663584.7
July	717685.3	2055373.8	4135012.8	413501.2	-61855.4
August	447462.9	2079639.5	4055167.8	405516.7	133063.1
September	375911.5	1975528.3	3568193.1	356819.3	360866
October	434468.6	1592664.8	3015558.8	301555.8	145907.1
November	334821.8	1422894	-	-	-
December	277692.1	-	-	-	-

Source: Calculated

CHART-7 Moving Averages of Cotton for the year 2016



Source: www.mcx.com

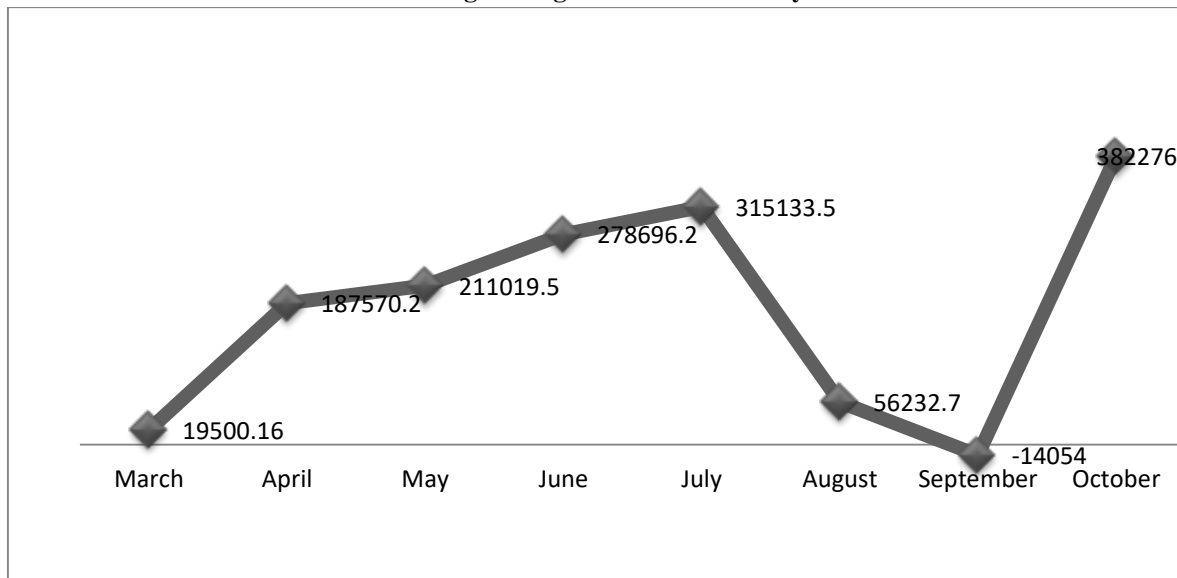
The above graph represents the moving averages of Cotton for the year 2016. The highest value of Cotton comes is Rs.133063.1 lakhs and the lowest is Rs.-3663584.7 lakhs in the month of June. Here the price rate is highly decreased due to climatic condition so the Market price rate have got fluctuates.

Table-8 Moving Average of Cotton for the month from January to December 2017
(Rupees in Lakhs)

Month	Closing Price (Y)	4 Months Moving Average	2 Period Moving Average	Closing Price (Y1)	Closing Price of Moving Average
January	633226.1	-	-	-	-
February	491593.3	-	-	-	-
March	686299.2	2273181.6	4382245.8	438224.5	19500.16
April	462063.05	2109064.2	3040231	304023.1	187570.2
May	469108.7	1617470.9	2510435.4	251043.5	211019.5
June	200556.6	1422760.3	1904125.4	190412.5	278696.2
July	126977.8	1087675.1	1539752.5	153975.2	315133.5
August	197883.9	816450.31	1416512.9	141651.2	56232.7
September	197883.8	723302.2	1410318.4	141031.8	-14054
October	126977.8	693210.7	3040231.2	304023.2	382276
November	170465.1	717107.7	-	-	-
December	150874.8	-	-	-	-

Source: Calculated

Chart-8 Moving Averages of Cotton for the year 2017



Source: www.mcx.com

The above table represents the moving average of Cotton for the year 2017. The highest average value of Cotton in market lies in the month of October and the lowest average value of Cotton in the market lies in the month of September. In this table, the average has been raised slowly from month of March and suddenly comes down in the month of August and September and again raised in the month of October. The performance of cotton is good in the year 2017.

2) To Examine the Comparative Analysis of Cardamom and Cotton

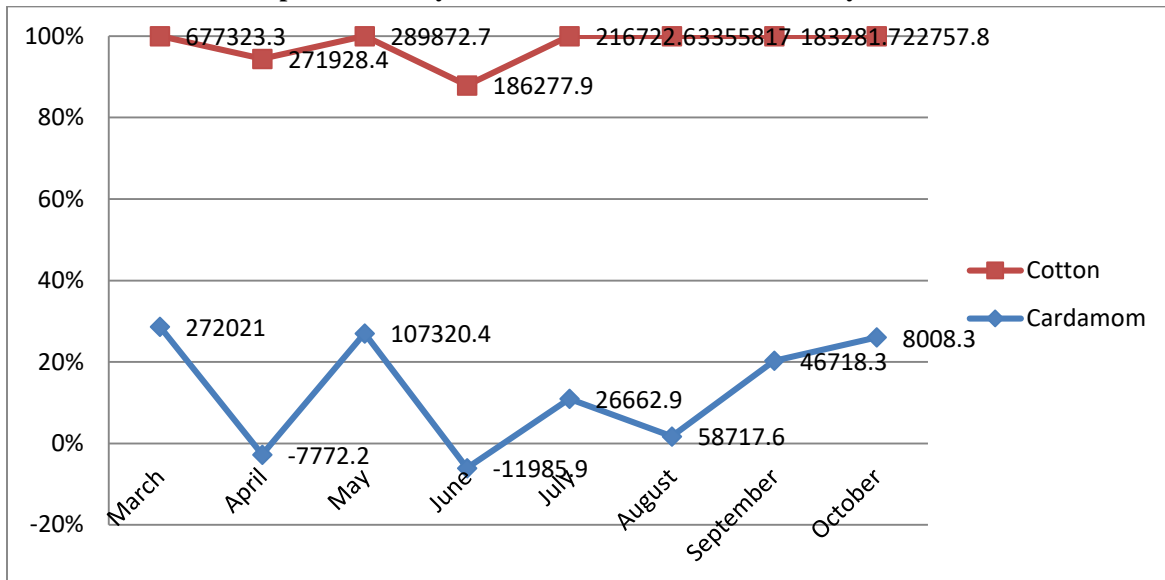
TABLE-9
Comparative Analysis of Cardamom & Cotton for the year 2014
(Rupees in Lakhs)

Months	Cardamom	Cotton
January	-	-
February	-	-
March	272021	177490.1
April	-7772.2	118074.1
May	107320.4	-88008
June	-11985.9	-3663584.7
July	26662.9	-61855.4
August	58717.6	133063.1
September	46718.3	360866
October	8008.3	145907.1
November	-	-
December	-	-

Source: Calculated

CHART-9

Comparative Analysis of Cardamom & Cotton for the year 2014



Source: www.mcx.com

The above trend line describes the comparison of Cardamom and Cotton for the year 2014. Where in this month of March it prices Rs.677323.3 lakhs is the highest in Cotton where to be comparatively low for Cardamom in the month of March it prices Rs.272021 lakhs so the production of Cardamom should be increase so that the price in MCX Commodity market will grow high in Agro Industries.

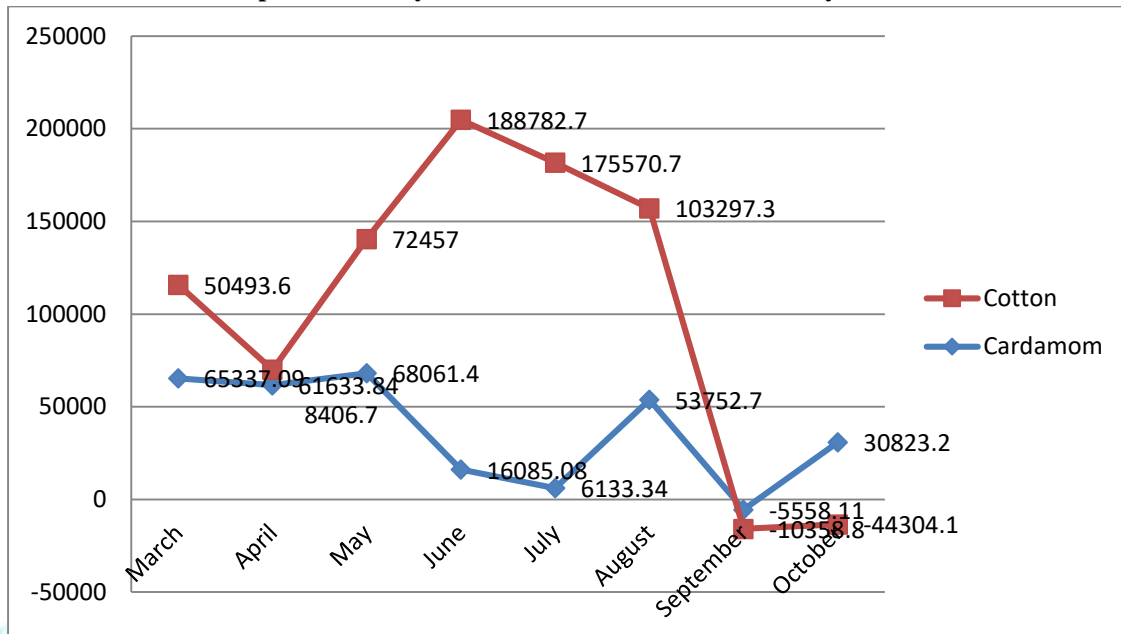
TABLE-10

Comparative Analysis of Cardamom & Cotton for the year 2015
(Rupees in Lakhs)

Months	Cardamom	Cotton
January	-	-
February	-	-
March	65337.09	50493.6
April	61633.84	8406.7
May	68061.4	72457
June	16085.08	188782.7
July	6133.34	175570.7
August	53752.7	103297.3
September	-5558.11	-10358.8
October	30823.2	-44304.1
November	-	-
December	-	-

Source: Calculated

CHART-10
Comparative Analysis of Cardamom & Cotton for the year 2015



Source: www.mcx.com

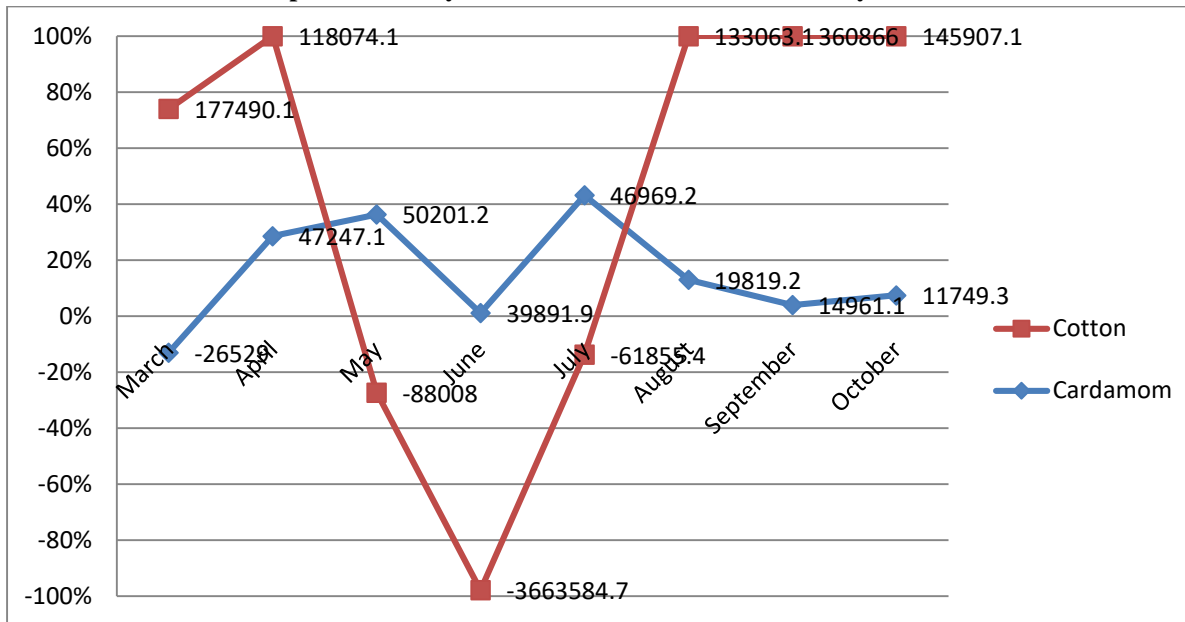
The given chart indicates the comparison of Cardamom and Cotton for the year 2015 the highest of Cardamom price is Rs.68061.4 lakhs in the month of June and for the cotton is Rs.188782.7 lakhs. Therefore the price rate should increase for Cardamom.

TABLE-11
Comparative Analysis of Cardamom & Cotton for the year 2016
(Rupees in Lakhs)

Months	Cardamom	Cotton
January	-	-
February	-	-
March	-26529	177490.1
April	47247.1	118074.1
May	50201.2	-88008
June	39891.9	-3663584.7
July	46969.2	-61855.4
August	19819.2	133063.1
September	14961.1	360866
October	11749.3	145907.1
November	-	-
December	-	-

Source: Calculated

CHART-11
Comparative Analysis of Cardamom & Cotton for the year 2016



Source: www.mcx.com

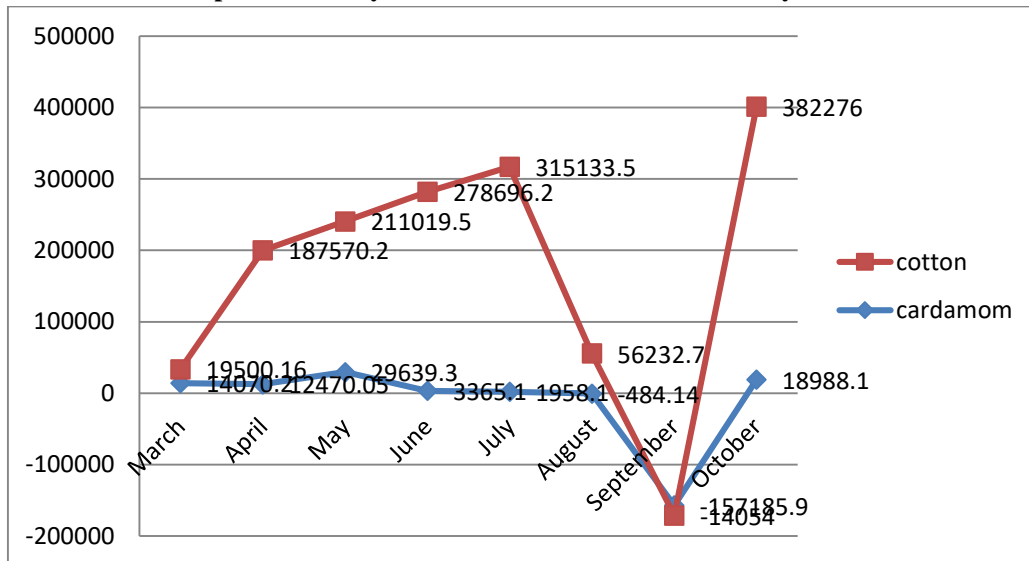
The above table interprets comparison between Cardamom and Cotton for the year 2016. Here the price gets fluctuated frequently so the price rate being varies higher and lower and the lowest of Cotton is Rs.-3663584.7 lakhs and the highest of Cardamom is Rs.46969.2 lakhs the growth of Cotton should get increased in the market.

TABLE-12
Comparative Analysis of Cardamom & Cotton for the year 2017
 (Rupees in Lakhs)

Months	Cardamom	Cotton
January	-	-
February	-	-
March	14070.2	19500.16
April	12470.05	187570.2
May	29639.3	211019.5
June	3365.1	278696.2
July	1958.1	315133.5
August	-484.14	56232.7
September	-157185.9	-14054
October	18988.1	382276
November	-	-
December	-	-

Source: Calculated

CHART-12
Comparative Analysis of Cardamom & Cotton for the year 2017



Source: www.mcx.com

The graph represents the price value of Cardamom and Cotton for the year 2017. Here the price level growth of Cotton in the market has increased gradually. The growth rate of Cardamom is somewhat equal and goes lower in a certain period so that the rate of Cardamom should increase in MCX Commodity Market.

VII. CONCLUSION:

Commodity Markets have a crucial role to play in the price risk management process especially in Agriculture. However, they have been utilised in very limited scale in India. The production, supply and distribution of many Agricultural Commodities are controlled by the Government and only forwards and futures trading are permitted in certain Commodity items. But there is always a doubt, as expressed by different researches and authorities, on the usefulness and suitability of futures contract in developing the underlying Agricultural Commodity market, especially in Agricultural based Economy like India. There are 113 Agricultural and Non- Agricultural commodities notified for trading in Commodity Market as per the ACT 1952. There should be an opportunity to provide trading of all Agricultural Commodities in Exchanges. The present study investigates the present status, growth and developmental policy alternatives for Commodity Markets in Agricultural Commodities of India. Comparison between Cardamom and Cotton for the year 2014 where in the month of March it values Rs.677323.3 lakhs. is highest in Cotton where comparatively low for Cardamom in the month of March it values Rs.272021 lakhs. Agricultural Commodities of the year 2015 the highest of Cardamom lies in the month of June Rs.68061.4 lakhs and the highest of Cotton is Rs.188782.7 lakhs. Hence the study suggests the reason for decrease of Cardamom is mainly due to the South west Monsoons, the quality flavour, colour, size and Aroma of the harvest, stock available at both India and Guatemala and domestic consumption patterns although this is quite steady over the years.

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