INDIAN AGRICULTURAL COMMODITY MARKET

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ABSTRACT
Commodity trading in India is aimed to stabilise prices of commodity. It helps to build a link between the spot market and future market. In India, there are four commodity trading stock exchanges: MCX, NCDEX, NMCE and Indian Commodity Exchange. Amongst these four, NCDEX and NMCE focus on agricultural commodities. There has been a major government intervention in Agriculture sector since long back as it tries to protect the interest of Indian farmers. Role of futures market come into picture when there is devastating price crash of crops. This study makes an overview of Indian Agricultural Commodity Market. It discusses about various agricultural commodities being traded and the performance of Agricultural Commodity Market in India and the various changes in the market since past five years.

Keywords: Commodity market, Commodity Exchange, Future market, hedging, speculation.

I. INTRODUCTION
One of the top producers of agricultural commodities is India. Commodity market in India is as old as it is in USA and UK. The markets have been facing ups and down since beginning but the country is successfully bringing degree of stability in the commodity market with progressing technology and transparency. Market forces of demand and supply rule the commodity market.

Commodity market: It is a market that involves trade in primary sector of the economy. Commodities are classified into two types: Soft commodities and hard commodities. Soft commodities are agricultural products such as sugar, coffee, cocoa, wheat and fruit. Hard commodities are generally mined such as oil and gold. The oldest way of trading and investing in commodities is through futures contract which means buying or selling an underlying asset at a predetermined price on a specified time in future. Future contracts are secured by physical assets. Trading in commodity market can either be done physically or through derivatives using spot prices, options, forwards and futures. Farmers generally use derivative trading in the commodity market for managing the price fluctuation risks.

II. REVIEW OF LITERATURE
1) (Maravi, 2015) identifies that Commodities are classified into two parts: Soft commodity and hard commodity. Soft commodity includes sugar, corn, wheat, soyabean which are generally grown. Hard commodities includes aluminium, gold and oil which are taken out from ground. There are 113 agricultural and non-agricultural commodities notified for trading in commodity market as per the Act 1952. Agricultural commodity means wheat, cotton, flax, corn, dry beans, oats, barley, rye, tobacco, rice, peanuts, soybeans, sugar beets, sugar cane, tomatoes, grain sorghum, sunflowers, raisins, oranges, sweet corn, dry peas, freezing and canning peas, forage, apples, grapes, potatoes, timber and forests, nursery crops, citrus, and other fruits and vegetables, nuts, tame hay, native grass, aqua cultural species (including, but not limited to, any species of finfish, mollusc, crustacean, or any aquatic invertebrate, amphibian, reptile, aquatic plant propagated or reared in a controlled or selected environment), or any other agricultural commodity, excluding stored.

2) (Bisen & Ashitkar, 2016) has tested that price of the commodities is unpredictable. Commodity price is critical for the growth of an industry as well as for the economy as a whole. Government has brought various reforms in commodity market to efficiently manage the price risk faced by the industry. Risk management can be done through commodity derivatives which give stability to the economic activities of the country.

3) (Sharma, 2016) examines that the agriculture commodity market is extremely important in India and play an important role in the price risk management. But this aspect has been underutilized in our country. The government controls most of the agricultural activity in the country and only certain commodities have forwards and futures trading. But, in an agricultural economy like India there has been questions of whether the futures market will help develop the underlying agricultural...
commodity market. But, the spread of the commodity market network and value of trade shows the high performance in this field.

4) (Bansal, Dadhich, & Ahmad, 2014) examines that over the years the commodity market in India has grown and especially certain commodities like metals that have been traded excessively. There was a ban on commodity trading in India and it was lifted during the early 2000’s. Since then the value of commodities traded has been on the rise and the main contribution is from metals but, agro commodities is not far behind. But, over the last few years, the agriculture commodities have not seen an increase in value. The value traded has been varying at a constant pace and there are no new developments in this area.

5) (Chhajed & Mehta, 2013) evaluates that the pricing strategy may be effective for some commodities but for not all commodities. If changes in spot prices drive changes in futures prices, efficient hedging strategies can be formulated; whereas if changes in futures prices drive changes in spot prices, efficient speculation strategies can be formulated. Further, causality can be used in forecasting commodity spot and futures prices.

6) (V.N & Vittal, 2017) through the paper has observed that price volatility has an effect on the Indian agriculture commodity market. These price fluctuations are caused due to various internal and external factors. The spot prices and future prices have a direct relationship. There is high risk due to unprecedented volatility in prices and hedging is the best way to achieve price risk management. Trading and settlement of the agricultural commodities are affected by the factors of demand and supply.

III. RESEARCH DESIGN

Scope of the study: This study is done for agricultural commodities trading for past five years to analyze the changes in the agricultural commodity market.

Objective of the study:
1. To evaluate the performance of agricultural commodity market.
2. To analyze the changes in the agricultural commodities market.

Source of Data: The study is based on Indian Agricultural Commodity Market. The study is done for past five years and it is descriptive in nature under Applied Research. The data and literature is taken from secondary source which involves Journals, Articles, Research Papers and various internet sources like www.mcxindia.com, www.nmceindia.com and other publications. There is no tool used to determine the fluctuations in the value and quantity of commodities traded over the last five years. It is based on the performance of agricultural commodities market.

Limitations of the study:
There is lack of data due to change in Regulatory body (FMC to SEBI).
Analysis of large data is not possible.

IV. DATA ANALYSIS

Table 1 shows the total number of commodity futures and options traded from the year 2014 to 2019. It bifurcates the data into traded contracts (lots), quantity and the total value of commodities traded.

<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>Year</th>
<th>Traded Contract(Lots)</th>
<th>Quantity (000's)</th>
<th>Total Value (Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUTCOM</td>
<td>2014</td>
<td>133751848</td>
<td>98449174.05</td>
<td>526149936.17</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2015</td>
<td>216346961</td>
<td>119547861.94</td>
<td>555164431.85</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2016</td>
<td>245077515</td>
<td>136350689.67</td>
<td>611154045.46</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2017</td>
<td>198589526</td>
<td>123972472.16</td>
<td>512604887.45</td>
</tr>
<tr>
<td>OPTFUT</td>
<td>2017</td>
<td>25036</td>
<td>25036.00</td>
<td>743884.01</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2018</td>
<td>229253822</td>
<td>141054361.50</td>
<td>636555347.69</td>
</tr>
<tr>
<td>OPTFUT</td>
<td>2018</td>
<td>1085808</td>
<td>565367.61</td>
<td>151445454.26</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2019</td>
<td>22210100</td>
<td>10535248.54</td>
<td>49946844.12</td>
</tr>
<tr>
<td>OPTFUT</td>
<td>2019</td>
<td>142086</td>
<td>33073.26</td>
<td>860301.79</td>
</tr>
</tbody>
</table>
From the year 2014 till 2016, there is an upward trend in the value of futures commodity trading. The value was Rs 526149936.17 lakhs, Rs 611154045.46 lakhs in 2014 and 2016 respectively. The number of traded contracts in 2016 was higher than that in 2014. In 2017, the value of futures commodity decreased as the number of traded contracts (lots) and the quantity decreased. In 2018, the value of futures commodity increased and in 2019, it again decreased.

Analysis of Option Futures Contract from the year 2017 to 2019: In 2017, the total value of Option Futures was Rs 743884.01 lakhs. There was an increase in the total value in the year 2018 which was Rs 15144454.26 lakhs because of increase in the traded contracts and quantity of Option Futures. In the year 2019, there was a decrease in the total value and the value was Rs 860301.79 lakhs.

![Commodity futures traded in India](image)

Table 2: Agricultural commodities traded in India

<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>Year</th>
<th>Traded Contract(Lots)</th>
<th>Quantity (000's)</th>
<th>Total Value (Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUTCOM</td>
<td>2014</td>
<td>3930662</td>
<td>12083973.57</td>
<td>13407180.54</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2015</td>
<td>3418027</td>
<td>10037313.64</td>
<td>11652928.96</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2016</td>
<td>3216150</td>
<td>11909904.94</td>
<td>13622238.65</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2017</td>
<td>2437131</td>
<td>8705198.52</td>
<td>11730932.92</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2018</td>
<td>1947383</td>
<td>6530345.83</td>
<td>10713550.02</td>
</tr>
<tr>
<td>FUTCOM</td>
<td>2019</td>
<td>130532</td>
<td>445648.04</td>
<td>699039.15</td>
</tr>
</tbody>
</table>

Table 2 shows trade contracts, quantity and total value of Agricultural commodities in India from the year 2014 to 2019.

There has been continuous decrease in the traded contracts (lots) from 2014 to 2019. In 2014, the traded contracts for Agricultural Future Commodity 3930662 and in 2019 it is 130532. Also, there was a decrease in quantity of Agricultural Future Commodity initially then in 2016 it increased and again started declining from 2017 onwards. This is the reason why the total value decreased initially then increased in 2016 and again started declining from 2017 onwards.
Out of the total value of Commodity futures and Options; 2.55% is contributed by Agricultural Commodity futures in 2014, 2.1% in 2015, 2.23% in 2016, 2.29% in 2017, 1.68% in 2018 and 1.4% in 2019.

V. FINDINGS
Over the course of the last five years, it is observed that not just agro commodities, but the value of commodity market in India has been going down. Some of the main reasons for this decline in agricultural commodity market:

- Hedgers are the majority among those trading in agricultural commodity futures and the regular investors have better options which give better returns.
- There is a huge uncertainty over the agro commodities as the regulatory authorities have suspended trading in such commodities at regular intervals over the last 10 years.
- The Commodities Transaction Tax (CTT) was introduced in the year 2013 and this forced many traders to look for other trading options as the CCT reduced their margins.
- The NSEL scandal played a major role in the decline as many investors lost their money due to it.
- In 2015, SEBI started to control the FMC, the commodities market regulator. This brought some relief, but by 2016 measures were taken to increase the initial margin and reduce the maximum position limit. This again added to the existing problems.
- The big blow came in the form of demonetisation which reduced the cash holdings of investors, hence affecting the trade volumes.

VI. CONCLUSION
The only positive over the last few years is that there has been large participation of hedgers in the agricultural commodities and this accounts to a large percent of the total volume. The future of agricultural commodities looks rather uncertain, but with the technology there is, there can be a lot expected, especially in terms of the system of trading. We cannot expect a sudden boom not an increase in trading activity at a high rate, but it is expected to perform better than the current scenario.
Bibliography


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