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Topic of Research: **Impact of Futures Contract on Cash Crops' Prices: An Indian Perspective**

FINDING

A new system of staggered delivery mechanism was established by the FMC which gives the seller an option to submit delivery much before the expiry of the contract. A fund for the service and protection of investors was framed to assist them while dealing with the brokers in the recognised exchanges. Various investor service centers are also founded to facilitate them through several programs of investor's education and awareness about their rights and obligations in the commodity derivatives market. The grievance mechanism was also established to settle the grievances of investors in time-bound manner.

Numerous agricultural commodities which are vigorously traded on MCX and NCDEX (the two major commodity exchanges in India) are studied to find out the association between their spot and futures price. Non-stationarity in data leads to the JCT which is exemplifying that the series of spot and futures prices are realized to be cointegrated of order one and it designates that there is a stable long-run equilibrium relationship in these series. Arbitrageurs are one of the key explanations for the long-run equilibrium amid these prices. Null hypothesis is that both the markets are independent (not cointegrated). Results denote that null hypothesis is rejected at five per cent level. This means that both the markets are integrated. The outcomes are very valuable for regulators and market participants. Any regulatory initiative on futures market will have its anticipated impact on spot market. Therefore, a regulator can act in the futures market such as reduction in contract size, changes in various margins and others which will have a bearing on the spot market. Market participants such as investors can utilise these results to forecast impact of shocks to the futures market on spot market.

Data on WPI and futures price of cash-crops operated on MCX and NCDEX has been analysed with the drive of reviewing the involvement between the inflation and futures price of cash-crops. Five cash-crops are considered for this objective namely as Castor, Cotton,

Soyabean, Cardamom and Turmeric. Castor, Cotton and Soyabean are depicting the cointegration between their futures price and WPI for all the three commodities correspondingly. It is elucidating the long-term relationship between them. As a result, information flows from these two data sets. So, the futures price and the price of these three commodities, in the wholesale market, are originating together for the long-run. As, prices in wholesale market i.e., WPI is also denoting towards inflation. On the basis of this, rise in the wholesale price can also be pursued through futures price or the determining factor for the futures price in the exchange can be based on the price of these commodities in the wholesale market, but the arbitrage process tries to equate these prices altogether to achieve long-term equilibrium. In Cardamom, return futures price leads return WPI for three lags of it in short-term. In other words, previous three months' future price have an outcome on current month's WPI. If futures price is low for the last three months, then the WPI for current month can be lower in short-run. So, the rate of inflation can be regulated in short-run through the past three month's futures price of the commodity. The players concerned in generating the futures price may get involved in deciding the future whole sale price of the commodity. The regulatory authorities can verify if there is any correlation between the investors in futures market and the person in wholesale market for Cardamom. In Turmeric, there is no lead-lag relationship between futures price and its wholesale price in the short-run. These two prices pursue bi-directional feedback relationship. As a result, the price of futures contract and wholesale price of Turmeric have no bearing on each other at any level of magnitude.

The last objective is deliberating the association of spot and futures contract of eight cash-crops, which are keenly operated on two principal national-level commodity exchanges (i.e., MCX and NCDEX), in terms of their price. In case of Cardamom; Castor; Guar Gum; Soyabean and Turmeric, the outcomes of VECM propose that futures price are leading and spot price is lagging behind futures price. So, the error correction takes place in spot price which has to follow and reach up to the level of futures price to attain long-term equilibrium. It measures that spot price will trail the futures price and any alteration in futures price will upset the spot price. The regulatory bodies and investors can forecast about spot price on the basis of futures price because spot price is following futures price. In case of Cotton; Mentha Oil and Guar Seed, the results of VECM suggest that there is bi-directional causality in case of these three cash-crops which is signifying that both the markets are well-organized in discounting the new information.