India’s futures market needs a rethink. Look at our pepper, cardamom sales

Futures trading in agricultural commodities need products to adhere to FSSAI rules. Physical markets don’t, and can sell faster.

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File photo of pepper | PxHere

A vibrant futures market can play an important role in price discovery and risk management for supply chain participants of agricultural commodities. Futures market enables trading of commodity derivative contracts, standardised in terms of quantity, quality and delivery place, on a regulated futures exchange that obligate parties to transact the underlying commodities at a predetermined futures date and price. While futures trading has a long history in India, starting as early as 1893, up until the end of the 20th century they were mainly operated by single commodity regional exchanges with varying levels of government regulations. Recognising the importance of futures trading in assisting market participants and the need for national-level exchanges, in 2003, the Union government allowed national-level electronic multi-commodity exchanges for futures trading in agricultural commodities. Since then, a number of cereals, pulses, spices, oilseeds and their derivatives, etc. have been traded on different national multi-commodity exchanges.

The volume of trading of agricultural commodities increased substantially and wasconsidered to be serving the purpose of price discovery and risk management, though there have been debates about large speculative volumes in some commodities. However, in recent years, the volume of trading in some commodities has reduced or come to a halt as in the case of pepper and cardamom. An important factor contributing to this downward trend seems to be related to quality assessment.

Loss of time and money

The commodity exchanges are required to have their accredited warehouses registered under the Warehouse Development and Regulation Act (WDRA). In 2017, the Standard Operating Procedures (SOPs) were defined under the WDRA for the warehouses. These SOPs stipulate that the food commodities stored in the exchange-recognised warehouses must comply with the Food Safety and Standards Authority of India (FSSAI) standards. The food additives regulations, 2011 devised by FSSAI stipulates that food commodities should be free from added colour or harmful substances, for the purpose of protecting consumers. The problem under this regulation for the exchanges was realised in 2018 when trading in pepper contract stopped and the volumes in cardamom contract started going down. The anomaly is that the transactions in the physical markets mostly go by the assessment of physical parameters and do not necessarily adhere to the FSSAI standards. Since these regulations are mandatory in the futures market, the cost and time of testing increased manifold while delivering the futures contract, due mainly to the additional chemical testing required. This created a gap in the quality assessment followed in physical and futures markets, and constrained the market participants an opportunity to hedge their price risk. As a result, the future contracts in spices and plantation crops have suffered the most.

Both National Commodity and Derivatives Exchange (NCDEX) and Multi-Commodity Exchange (MCX), the two major exchanges dealing with the agricultural commodities, have seen the last of the pepper contract this year. Further, the cardamom contract on MCX will have to be closed in August 2021. The WDRA regulation is also making it difficult to introduce futures contracts in other spices and plantation crops.

While FSSAI standards ensure food safety, there are some practical difficulties when WDRA stipulates that exchange warehouses must comply with the FSSAI standards. First, chemical testing of some parameters is not easily done and there are very few testing facilities available in India. Due to this, market participants may have to dependonly on government testing centres, which may not exist in delivery locations. Second, cost and time taken for testing are high when certain chemical tests are needed. This makes futures trading expensive and the time delay can make deliveries unattractive, which is counterproductive in ensuring efficiency in futures markets. Third, fulfilment of any contract has to be with respect to what is specified in the contract, which is set based on the requirement of the trade and, therefore, at the time of delivery, one has to go by testing those parameters mentioned in the contract rather than externally imposed standards. Fourth, a futures market has to be in tandem with the spot market because it has to enable market participants effectively arbitrage between these two markets so that the basis risk is low, and it effectively serves the purpose of risk management. Enforcing additional constraints on the futures market alone will only affect futures trading without any benefit to any other stakeholder including consumers.

Pepper, cardamom and coffee

An incidence of quality dispute in black pepper highlighted prominently the problem of trading in the futures market. In May 2013, NCDEX had to stop the futures trading of pepper because of the presence of mineral oil in the product to be delivered. NCDEX had to process 6,400 tonnes of pepper to make it mineral oil-free at its own cost and then delivered it to the buyer. The futures contract in pepper also stopped trading on MCX at the same time. Both NCDEX and MCX relaunched the contract in 2017 but none was successful in attracting the participants to trade in these contracts. The issue of the quality gap between the physical and futures market was aggravated by the new guidelines of WDRA in 2017. By January 2018, the trading came to a complete halt with only one lot being traded in that month. In the physical market, traders are concerned about the size of the pepper and moisture content, and there is no chemical testing done.

For the futures delivery, piperine content, volatile oil content, and non-volatile ether extract need to be ascertained apart from other harmful substances like mineral oil. For chemical testing of pepper, one has to incur extra cost and time. Before August 2018, the cost of testing one lot of pepper at MCX was Rs 3,000 which increased to Rs 8,950 afterwards. The time of testing also increased from one day to 10-15 days.

In the case of cardamom, size, colour, and moisture of the capsules are determinants of quality in the physical market. Some traders also look for the bulk density. However, the FSSAI standards require testing for added colour and harmful substances which can only be done through additional chemical testing. This difference in the quality compliance between the physical and futures market has demotivated the traders and other market participants to hedge their risk on the futures market. The cost of testing one lot of cardamom for delivery in a futures contract has gone up from Rs 900 before August 2018 to Rs 7,150 now, an 8-time increase.

In the case of coffee, the story remains the same as that of cardamom and pepper. The presence of added colour and harmful substances need to be checked according to the food additives regulations, 2011 of FSSAI. But the physical market follows the quality standards set by the Coffee Board of India that do not mention anything about added colour or harmful substances. The size of the coffee bean is mainly used for the grading. The other important parameters are moisture content and taste. The Coffee Board of India certifies tasters of coffee after training them. The WDRA guidelines have caused concerns about launching a futures contract in coffee because of the requirement of adhering to FSSAI quality standards.

Use modern technology

The WDRA guidelines have constrained the market participants from hedging their risk in the futures market, particularly in the case of spices and plantation crops. Besides setting up the quality standards, the agencies should also look at the practicality of assessing them. The information about the tests required to be done on a commodity should also accompany the quality standards set by the agencies like FSSAI. The standard-setting agencies should work with research organisations of individual commodities to evolve practical quality standards across the value chain. A piecemeal approach to implementing quality standards will only affect some participants in the value chain, without adding any benefit. Assaying in the futures contract should be based strictly on the quality specifications mentioned in the contract. Separately, the commodity research organisations should work on homogenising the quality standards throughout the value chain by implementing certifications such as IndGAP, GlobalGAPand Good Manufacturing Practices so that questions about added colour and harmful substances do not arise.

The authorities should also open up to the opportunities of reducing the cost and time of testing the agricultural products by adopting emerging technologies. Artificial intelligence and machine learning have been instrumental in developing new-age solutions for assaying agricultural products. Computer vision, near infrared technology, and nuclear magnetic resonance technology are revolutionising the testing space in agriculture. They have the potential to significantly reduce the cost as well as the time of testing. At present, the labs that use these techniques are facing problems in being accredited by competent authorities. Instead of being apprehensive about the emerging technologies, it is important to explore them in terms of convenience, costs and benefits to facilitate transactions in the physical as well as futures markets.

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