Commodity futures markets

4.98 An important area where many new developments took place in 2003-04 was the commodity futures markets. The Government issued a Notification on April 1, 2003 rescinding all previous notifications which prohibited futures trading in a large number of commodities in the country. These commodities have now been notified for regulation for the purpose of forward trading in them. This was followed by a Notification in May 2003 revoking the prohibition on non-transferable specific delivery forward contracts (i.e. merchandising contracts). These developments have set the stage for a prominent role for commodity futures trading in the country, provided sound market institutions come about, which use a sound market design.

4.99 The Government of India, on the recommendation of the Forward Markets Commission (FMC), granted recognition to National Multi Commodity Exchange, Ahmedabad (NMCE); Multi Commodity Exchange, Mumbai (MCX); and National Commodity and Derivative Exchange, Mumbai (NCDEX) as nation-wide multi-commodity exchanges. MCX commenced trading in November 2003 and NCDEX commenced trading in December 2003.

4.100 The FMC has applied high standards for the market design that should be used in these new areas. There are three competing exchanges, but all three have been required by FMC to use anonymous order-matching. Hence, the difficulties associated with non-transparent bilateral dealings has not arisen.

4.101 These exchanges have given a new thrust to futures trading in agricultural commodities. Prior to these exchanges, commodity futures trading typically took place in small groups of dealers who knew each other. In contrast, NCDEX has setup 505 terminals in 138 centres; MCX has setup 763 terminals in 132 centres and NMCE has setup 346 terminals at 90 centres. These electronic systems pool in orders from all across the country into the three computerised order matching systems. This marks a major break with the fragmented and non-transparent price discovery which took place earlier.

4.102 FMC has drawn upon the learning of the equity market in terms of favouring the 'demutualised' governance structure for exchanges:

- NCDEX, Mumbai has the equity participation of 19.95 per cent each from ICICI Bank, LIC, NABARD, NSE; 12.10 per cent from CRISIL, and 8.10 per cent from PNB.
- MCX has been promoted by Financial Technologies of India Limited (FTIL) which is a public limited software company. FTIL holds 150 lakh shares in MCX, and Union Bank of India holds the remaining 4.2 lakh shares.
- NMCE, Ahmedabad, has equity participation of 31.7 per cent from Central Warehousing Corporation, 30.5 per cent from Neptune Overseas Ltd., 13.4 per cent from Gujrat Agro Industries Corporation Ltd., 12.2 per cent from Punjab National Bank and 6.1 per cent each from Gujrat State Agricultural Marketing Board and National Agricultural Cooperative Marketing Federation of India Limited.

4.103 These policy decisions at FMC in recent years, which have given a modern design for commodity futures exchanges, have laid the foundations for an important new phase for the growth of agriculture in India. On one hand, the growth that has been made possible by electronic trading needs to be consolidated, by building a sound regulatory framework, comparable to what has been done by SEBI for the equity market, and sound risk management comparable to that found at NSCC or CCIL. There is also a need for an extensive effort to harness these markets in a variety of ways in the economy, such as (a) utilising options for 'price stabilisation' efforts of the government, (b) delivering credit products where farmers pay lower interest rates when prices are low, (c) extending knowledge and market access to every district of the country.

4.104 FMC initiated trading in gold and silver futures in 2003-04. By virtue of India's self-consumption of these metals, and through India's prominent role in global production chains in jewellery, there could be a prominent role for India to participate on the global stage, in setting prices, and in exporting financial services to the global bullion community.

4.105 Turnover has grown dramatically from 223 kg. of gold in October 2003 to 21,413 kg. of gold in March 2004. Similarly, silver turnover grew from 3.6 metric tonnes in October 2003 to 395 metric tonnes in March 2004. Among the three electronic exchanges, MCX has been particularly important in the bullion area.

Box 4.2 : Modernising commodity futures trading with a archaic spot market: Innovations at NCDEX

- There are innate contradictions in attempting to create a derivatives market in the absence of a transparent spot market.
- In the area of commodities, in order to obtain reliable spot prices, NCDEX has pioneered a unique concept of polling prices from relevant market places (mandis). The agencies CRISIL and CMIE have been chosen for the polling of spot prices from traders across the country. For every commodity, the polling is done from different centres where the major proportion of spot market trades is concentrated. There is a panel of traders familiar with the trends in the commodity concerned for each commodity; randomly selected members are being polled three times a day (market open, mid day and market close) to reveal the best buy and sell prices prevailing on the OTC spot market.
- This information is processed using a statistical procedure called the 'adaptive trimmed mean' (ATM) in order to remove outliers, arrive at a clean market price, and reduce the returns to manipulating the reports being given to the data agencies. Through this process, the nation is able to observe prices on the OTC market, which is otherwise non-transparent.
- NCDEX has seen a high level of convergence between the traded futures prices and the final settlement prices obtained through polling on expiry dates of contracts in the past four months. This is a testimony of the robustness of the process.
- This system has given a new level of near real-time access to reliable prices from agricultural markets in the country. This marks a milestone for the statistical system in agriculture, and sets the stage for modern development of commodity derivatives markets despite the presence of a fragmented OTC spot market.

Box 4.3 : Evening trading: An innovation in market design

- Domestic commodity prices are integrated with major commodity markets across the world. Domestic bullion prices are closely related to the current trading prices on the New York Mercantile Exchange (NYMEX-COMEX) in USA and the London Bullion Market Association. Similarly, domestic Palmolein prices are highly correlated to the prices on the Malaysia Derivatives Exchange Berhad (MDEX).
- Given the time zone differences with each such external exchange, and given the increasing volatility during trading hours of international exchanges, domestic users of commodity futures markets were exposed to adverse price movements taking place beyond normal trading hours in India.
- In a pioneering innovation, Multi Commodity Exchange (MCX) started an evening trading facility which commenced operations from 8 December 2003. Through this, trading goes on till 11:30 PM in the night in Indian Standard time. NCDEX also replicated this functionality from 23 February 2004 onwards.
- Ever since the introduction of this facility by MCX and NCDEX, trading volumes have grown in a sustained manner. At MCX, 60 per cent of the total volume of trade in bullion is in the evening session.

Demat settlement for commodities

4.106 A key enabling infrastructural institution which spurred growth in the Indian stock markets was the concept of holding shares in a dematerialised form, where individuals across the country interact with a depository, and are able to effectively obtain account balance statements, execute transfers of securities, etc.

4.107 This element of market design can equally be utilised in other asset markets. As in the equity market, free, secure and easy transferability of commodities is of utmost necessity to bring about a sound spot and derivatives market for commodities. NCDEX, NSDL and Karvy Consultants have jointly worked in creating an innovative new concept of dematerialised settlement for commodities. Their developmental work has addressed issues such as : (a) Holding of commodity balances in electronic form, and conversion of warehouse receipts into electronic mode, (b) Safety, speed and security of transactions, (c) Online availability of stored commodity data at warehouses, (d) Commodity grading through multiple commodity identification numbers, (e) Tailor made depository infrastructure, (f) Technology awareness and networking between registrar, depository and warehouses.

4.108 With the set up of the above major infrastructure, the first commodity electronic dematerialisation, transfer and delivery was undertaken for one kilogram of gold on February 24, 2003. This was the first electronic transfer of commodities in the country, and serves as a milestone in the creation of modern markets for commodities.

4.109 These developments augur well for the efficiency of spot-futures arbitrage on the commodity derivatives markets. This element of market design will also facilitate bank lending against commodities, facilitate the spot market, and promote modern development of collateral management.