

One-Day Seminar
On
Commodity Derivative Markets: Opportunities and Challenges

Organized by
Takshashila Academia of Economic Research, Mumbai
&
Institute of Studies in Industrial Development, Delhi

Background Note

Historical Perspective

India has a long and chequered history of commodity derivative trading, spanning over 130 years. The commodity derivative exchanges witnessed several ups and downs for the past 13 decades, with a booming phase of unbridled free futures trading in as many as 300 markets during the pre-independence era, followed by a ban on such trading for almost a decade after the outbreak of the Second World War in 1939. Subsequent to independence in 1947, the then Government of Bombay enacted the Bombay Forward Contracts Act and permitted futures trading in cotton and oilseeds under the auspices of the recognized associations. Outside Bombay Presidency, commodity futures trading was also revived, but remained free and unregulated except by the exchanges organizing such trading.

With the Constitution of India coming into force on January 26, 1949, the subject of futures trading came under the Union List. As a result, the Government of India brought on the Statute Book the Forward Contracts (Regulation) Act, 1952 (FCRA), and established the Forward Markets Commission (FMC) in 1953. Under the FCRA, futures trading came to be allowed in select agricultural commodities and their products under the auspices of associations recognized by the Government of India. By mid-1960s, around 30 associations were recognized for trading in about a score of commodities. Trading was subject to severe regulatory measures. But no sooner the markets began to bloom with some activity, the government turned volte-face, and proscribed futures trading in almost all major food crops in the fond hope of restraining the raging inflation in the economy.

Following the launch of economic reforms in the early 1990s, and especially after India signed the General Agreement on Trade and Tariffs (GATT) to enter the World Trade Organization (WTO), the World Bank and UNCTAD submitted a joint report to the Government of India recommending revival of futures trading in farm commodities and their products to render trade in such commodities competitive in the world markets after the envisaged removal of trade and non-trade barriers. As a result, futures trading was revived, after a lapse of nearly three and a half decades, towards the close of the 20th century. The onset of the new millennium thereafter witnessed the setting up of three new national commodity exchanges, which were permitted to trade in commodities of their choice, unlike the traditional regional and single commodity exchanges that traded in one or few closely related commodities only. At present, there are almost two dozen commodity exchanges, including three national exchanges, trading in as many as 100 commodities together.

The new national commodity exchanges marked a distinct transfer scene on the commodity derivative trading landscape in the country. In contrast with the conventional

commodity exchanges, in which prevailed the long established floor-based open outcry trading system, the new national exchanges organized derivative trading on screen-based anonymous automated electronic system. The national exchanges also guaranteed the performance of the contracts, eliminating thereby the counterparty risks, whereas the old exchanges did not provide any such guarantee, but distributed the losses arising from any defaults among the members entitled to receive payments from the defaulting member.

Incidentally, while trading volumes in several non-agricultural commodities, especially metals and energy products, has been quite high, the major agri-commodities have failed to take off. To be sure, as much as around 80% of the trading turnover in commodity exchanges is confined to half a dozen non-farm goods, whereas the rest is widely dispersed among a wide spectrum of agricultural commodities and their products.

Despite a long history of commodity futures trading in the country, futures markets are still viewed with suspicion by many in both the academic and official circles. The recent deflation in the values of various assets underlying the different derivatives, including commodity derivatives, following the global meltdown, have provoked even more doubts about the much acclaimed economic utility of futures trading for price discovery and risk management. As a result, its support for futures business in many commodities notwithstanding, the authorities have still not permitted such trading in several food grains like rice and millets, and some major pulses, too. The government also continues to suspend futures trading in commodities as soon as it suspects that such trading may affect adversely the prices of those commodities to the detriment of one or the other class of society. Even in USA, which has the most active commodity exchanges in the world, the new administration of President Obama is not merely rewriting the rules of regulation, but even investigating the role of commodity futures trading in the steep rise in prices of wheat and crude oil in 2007-08, regardless of the fact that commodities as an asset class have revealed the resoluteness and resilience in the face of global financial crisis.

At the same time, the FMC and the Union Ministry of Consumer Affairs in India are considering seriously to revive the Bill to amend the FCRA, since it lapsed after the dissolution of the last Lok Sabha. The Bill seeks to not only strengthen, enlarge, and upgrade the FMC, with more regulatory powers, but also legalize options, permit trading in intangibles with cash settlement provisions, and allowing the entry of financial institutions, including foreign financial institutes, in commodity derivative trading business to broaden and deepen the markets.

Against such conflicting views and vista, commodity futures markets present a massive research agenda on major policy and empirical issues. This has prompted

Takshashila Academia of Economic Research (TAER), Mumbai, to organize in association with the Institute of Studies in Industrial Development (ISID), New Delhi, a one-day seminar on “Commodity Derivative Markets: Opportunities and Challenges”. The three major themes selected for discussion in three successive sessions of the Seminar are:

- Strengthening and Expanding the Scope of Commodity Derivative Trading
- Impact of Futures Trading on Commodity Prices
- Role of Commodity Derivative Markets in the Global Meltdown

The scope of discussion at the Seminar on each of these three themes, together with the major issues involved in each of them, on which can be prepared papers for presentation at the different sessions of the Seminar, has been delineated separately in the following pages. The issues listed are only illustrative in nature, and not necessarily exhaustive. The authors are free to write papers on any other issues arising out of the scope of the different themes.

Session I

Strengthening and Expanding the Scope of Commodity Derivative Trading

The commodity derivative markets have been functioning in this country under the FCRA, which had entered the Statute Book almost half a century back in 1952. Since then the entire ecosystem of commodity markets the world over has undergone significant transformation, owing to changes in the trade pattern, trading methods and practices in both the physical and derivative markets, warehousing and transport norms, information and communication technology, and, above all, the growth of new risks, risk management instruments, and the entry of new institutional non-trade related market participants. That underlines the need for not only strengthening and expanding the scope of commodity derivative trading, but also regulating effectively such trading through restructuring the regulatory authority, and entrusting it with more regulatory and judicial powers, to ensure healthy and orderly development of markets, without any threats of manipulations, corners, and squeezes, besides avoiding unwarranted price volatility unrelated to the fundamental conditions of supply and demand.

With this end in view, the Union Government had moved in the last Lok Sabha a Bill to amend the age-old, obsolete FCRA. The Bill was scrutinized over a long period by a specially appointed Standing Committee of the Parliament. An Ordinance was also issued amending the FCRA on the lines of the Bill. But before the provisions of the Ordinance could be implemented, the Ordinance lapsed, and the Amendment Bill moved in the Lok Sabha to validate the Ordinance also lapsed, following the dissolution of that Lok Sabha. Now, with the constitution of the new Lok Sabha and the assumption of the new government at the Centre, the authorities are once again looking forward to introducing a new amendment Bill on almost the same lines as the old lapsed one.

As it is, the present FCRA is essentially an enabling Act, and the FMC is more an advisory and monitoring body than a full-fledged regulatory organization, though it has acquired quite a few regulatory powers circuitously under the by-laws of the associations recognized under the Act, owing to the power of the Union Government to approve such by-laws. Nevertheless, the real regulatory powers are still vested under the Act with the Union Government. Hence, it is considered necessary to amend the existing law to meet the challenges of the new commodity market ecosystem.

The envisaged amendment bill will legalize options in commodity derivatives, alter the definition of the term “goods” in the current law to facilitate trading in derivative contracts for intangibles like commodity indices, weather derivatives, and also allow the cash settlement of derivative contracts. It will further permit foreign individuals and institutional investors, banks and other financial institutions to trade in commodity

derivatives. More importantly, the amendment will give greater teeth to the FMC by raising its status to that of its counterpart in the securities market, namely, the Securities Exchange Board of India (SEBI) through its upgradation and expansion, and conferring upon it more regulatory and judiciary powers.

Following from the proposed amendment to the FCRA, it seems crucial to discuss, among others, papers on the following issues:

- Need for Amendment to the FCRA – Are the present powers of the FMC really inadequate to regulate commodity derivative markets? What are the strengths and weaknesses of the FMC at present? What kinds of deficiencies exist at present in the organizational, functional, and operational pattern of the FMC, which need the proposed Amendment to the FCRA?
- Is convergence of the FMC and SEBI desirable for effective regulation of both the securities and commodity exchanges? Is an independent Super Regulator over both the FMC and SEBI necessary for proper regulation and healthy development of commodity and securities exchanges, especially since the latter are now being entrusted with the task of organizing currency and interest rate derivatives markets, which are primarily needed by commodity players? Or, should the currency and interest derivative trading be allowed to be organized by commodity exchanges only, instead of by stock exchanges as at present?
- What kinds of steps are needed to develop and strengthen the commodity derivative contracts and markets? What sorts of amendments to the FCRA will assist the FMC to strengthen and develop commodity derivative markets on sound lines? Were the proposed amendments in the lapsed amending Bill adequate to strengthen and expand the commodity derivative markets in the country? If not, what new amendments are required?
- Are options on commodity futures necessary? If so, why? If not, why? If options are required, which commodities are suitable for such trading? Why? What kinds of regulations are required to ensure orderly trading in commodity options?
- Should intangibles like commodity indices, rainfall and weather, as also immovable like real estate be allowed to be traded on commodity exchanges? What are the advantages and disadvantages of derivative contracts in them? What kinds of settlement mechanisms need to be introduced for such contracts?

- Is it desirable to settle all commodity futures contracts by payment of cash differences, instead of insisting on compulsory deliveries on the maturities of contracts? What are the pros and cons of the alternative settlement mechanisms for different types of contracts—tangible, intangible, and immovable?
- Should banks, financial institutions, foreign investors, retail individuals and institutions like pension funds, hedge funds, etc. be allowed to participate in commodity derivative markets? What are the advantages and disadvantages of such participation? Will such participation help strengthen the markets by deepening them, reducing price volatility, and encouraging more hedger participation?

The authors desirous of presenting papers at this Session of the Seminar may feel free to prepare papers covering one or more of these issues, or any other that may help strengthen and develop commodity derivative markets, and improve their regulation on healthy lines.

Session II

Impact of Futures Trading on Commodity Prices

Since the onset of futures trading in commodities, there has always been a debate on the impact of such trading on prices. While producers have voiced their concern about the alleged depressing influence of futures trading during times of surplus supplies, consumers and the end-use industries have whined about their aggravating influence on rising prices under conditions of short supplies, especially in inflationary periods. Either way, speculation in commodity futures has been looked upon invariably as the villain of the piece by both the groups. Even economists are divided almost vertically on the role of commodity derivative markets, especially speculation in it, in marketing and pricing of physical commodities. While the advocates of derivative markets vouch for their economic utility for price discovery and price risk management in domestic and export marketing of physical commodities through all the stages of such marketing, they fervidly argue that speculation in these markets primarily help in the performance of these twin economic functions. Not just that, but they even further contend that speculation essentially stabilizes prices, and does not aggravate price trends.

On the other hand, those who contest the economic utility of futures markets, though not necessarily all of them are die-hard anti-market crusaders, see speculation with strong suspicion. Since speculators are in the market mainly for making gains, they believe that speculators seek to profit primarily from aggravating price trends rather than from stable prices. After all, price volatility, and not price stability, gives rise to speculation, according to these opponents of futures markets. They therefore contend that the volume of speculation is directly correlated to the extent of price variability. Greater the price variability, higher is the speculation, and vice versa. It follows that speculation is essentially price destabilizing, they assert.

More recently, following the sharp increase in the prices of wheat, rice, and pulses, Abhijit Sen Committee has looked into this controversial issue of the impact of futures trading on commodity prices. The Committee failed to arrive at any unanimous conclusion, even as the majority of the Committee members opined that such trading has no adverse influence on the commodity prices in the physical markets. Prof. Sen, however, remained ambivalent on this issue, as the available data were inadequate, in his view, to draw any meaningful inference. In the wake of the financial meltdown, even USA is now debating seriously whether speculation was accountable for the so-called super cycle in commodity prices, especially energy and food grain, and metal prices that

prevailed through 2006-08. While a Senate (Carl Levin) Committee¹ has blamed the lax in regulatory action for the rise in crude oil, energy products, and wheat prices, and the lack of convergence between the spot and futures prices of wheat during the maturity months of the CME (Chicago Mercantile Exchange) contract in late 2008 and early 2009, which raises qualms about the economic benefits of futures markets, investigations by the Commodity Futures Trading Commission (CFTC), the regulatory agency of the U.S., found no such lapses. So also, the report of the CME could not uncover any irregularities in the trading of wheat at the Exchange, though it did subsequently modify some of the terms and the delivery locations of its wheat contract. No doubt, several studies in the past have established empirically the stabilizing influence of futures markets on the short and seasonal price variations, with little impact on the long-term secular trend in commodity prices.

In view of the conflicting reports and inadequate evidence, there is a crucial need to understand the relationship and dynamics between the futures and the physical markets in commodities, and more specifically the impact of derivative trading on the physical market prices. The second Session of the Seminar is therefore devoted to consider these issues critically. While the papers in this Session need to be more empirical in nature than theoretical, they may also take into account the various recent reports and papers on the subject published in USA, India, and elsewhere. The papers of this session may discuss analytically one or more of the following issues:

- Economic functions of commodity futures markets and their utility for different market functionaries separately, and for marketing in general in terms of reducing marketing/ processing/warehousing/financing costs and margins.
- Do futures markets lead to price discovery? What is the meaning of the term “price discovery”? Why futures markets are believed to be leading to better price discovery? Are not prices discovered in the absence of futures markets? Who benefits from the price discovery made in the futures market? How do they benefit? How can one measure the pricing efficiency of the futures market?
- Role and functions of speculation in a futures market. What are the characteristics of different types of speculation? Benefits and evils of different types of speculation. How can one determine excessive speculation—in terms of aggregate volume of trading or by aggregate open interests, or the kinds of traders who cause such volumes or hold such open interests? Is excessive speculation bad? If so, what ills can

¹ Examinations by a Senate investigative panel that Carl Levin headed have found upward pressure on prices for crude oil, natural gas and wheat futures caused by market speculation. "Excessive speculation is distorting prices, undermining our commodity markets and hurting our economic recovery", said Levin in a recent statement.

excessive speculation cause to the futures or physical markets? How can one curb such evil speculative excesses?

- Distinction between speculation and manipulation. What are the characteristics of manipulation? What and which class of traders cause manipulations? How can manipulations resulting in corners and squeezes be averted? Are the current trading rules and by-laws of the exchanges, and the regulatory measures and powers resorted to by the FMC, adequate to prevent manipulations?
- Impact of futures trading on commodity prices in the physical markets, with specific reference to short-term and seasonal price variability, as also cyclical fluctuations as depicted by the famous Cobweb Theorem in agricultural economics. Can futures markets impact long-term price trends in the physical commodity markets by either aggravating them or reversing them, undermining thereby the influence of the fundamental forces of supply and demand? Under what conditions can such undermining influence of futures markets occur?
- Does adequate empirical evidence exist to establish the price integrating influence, both horizontally (across regions and even national boundaries) and vertically (among raw materials and processed and finished goods)? If not, is it possible to integrate such prices by resorting to appropriate steps to improve futures contracts and develop futures markets? If so, what kinds of steps are needed for the purpose?
- Do commodity derivative markets suffer from some inherent biases in price making that affect adversely one class of hedgers as against the other? If so, what causes such biases? How can these biases be rectified to improve pricing efficacy and efficiency in risk management for all types of market functionaries?

This list is only indicative, and not exhaustive. Papers on other related issues, but linked closely to the main theme of the Session, can also be prepared.

Session III

Role of Commodity Derivative Markets in the Global Meltdown

In the context of the global financial meltdown that brought down precipitously the asset values of both movables and immovables, and tangibles and intangibles, affecting adversely the real economy with receding, and even negative, growths in almost all sectors of the economy, and raising in the process unemployment rates to record levels, commodity markets have shown an amazing resilience and steadfastness, despite the initial setbacks in base metals and energy. Commodity exchanges the world over, including those in India, have been surprisingly registering record turnovers in the face of a crisis that shook the entire financial ambit of the world economy. It appears that commodities have emerged as a new asset class for safe and secured investments. Money has been moving from other traditional asset classes to commodity derivatives. In the absence of alternative avenues of investments, the new investing classes like hedge funds, pension funds, index funds, sovereign funds, endowments, banks, and other institutional investors are entering commodity exchanges in droves with their huge fund flows to invest in index futures and commodity swaps.

It seems that the traditional historical pattern of commodity futures markets is undergoing a sea-change. Hitherto, commodity futures markets were viewed as essentially “hedging markets,” to use its familiar description by Holbrook Working, who pioneered the studies in economics of commodity futures trading before the Great Depression of 1929. Traders in the markets were classified as hedgers and speculators; the line of distinction between the two was quite thin, though. The CFTC too was all along classifying commodity futures market traders as hedgers and speculators, and monitoring their positions accordingly while regulating the markets. Of late, however, it has changed the classification into commercial and non-commercial traders. Institutions trading in commodity futures, index futures, and commodity swaps are grouped along with the physical commodity market functionaries, since many of the institutions too hold physical stocks of commodities. As a result, investment trading in various commodity futures and their derivatives are also being treated on par with hedge trading. The commodity futures markets have, as a result, acquired a new dimension altogether.

This new dimension of the commodity futures market, which has been the fall-out of the global financial meltdown, leaves many questions for academicians, regulators, and market men to answer in this third and last Session of the Seminar. Some of these questions are:

- Do commodity derivatives serve as an asset class for investment? If so, which commodity derivatives are better investment tools than others?

Why? What kind of commodity mix will prove more useful for investment? Is it possible to demonstrate such usefulness by quantifying the benefits?

- What is the nature of relationship between the prices of commodities on the one hand, and those of securities and other financial assets on the other? Will such relationship help investors hedge their financial asset positions in commodity derivatives? What sort of mix of commodity derivatives with other financial assets like securities, currency derivatives, bonds, etc, in a typical investment portfolio, improves the risk-return relationship for investors? Can such improvement be demonstrated?
- Which commodities or commodity complexes (comprising closely allied and substitutable commodities and their products) have proved to be more resilient and resistant to financial meltdown? Why?
- How has the role of various market participants in the commodity derivative markets altered, following the financial meltdown?
- What is the impact of such investment demand on the commodity markets, both futures and physical? What sort of role do commodity market regulators play when commodity derivatives are traded more for investment than for risk management?

Again, as with the previous two sessions, the list of issues drawn here is merely suggestive. Papers on other issues related to the theme of this session are also welcome.