Commodity Trading and its Implications on Indian Economy
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ABSTRACT

This paper reviews the opportunities lying in the agriculture commodity trading. As we know that a minimum four percent growth in agriculture sector is a pre-requisite to double digit growth rate for the country to make it a self-reliant economy. For working in this direction it is must to promote better price realization and disposal of agri produce. To ensure this government has given approval to commodity exchanges for certain commodities. Commodities unlike stocks and bonds are physical assets that can be bought, sold and used for some purposes. Even when stock exchanges are enjoying an unprecedented boom and increasing investors’ wealth, it is the commodities that are making a steady progress. Commodity exchanges have not logged as much volume of trade and as much value as securities have done, but there is a possibility that in the next five years or so the commodity exchanges may overtake stock exchanges in terms of volume and value. Apart from being an asset class, commodities can also be used as instruments to hedge against inflation. In India, a key measure of inflation is the wholesale price index, which comprises both industrial and consumer goods. Investment in commodities not only has a balancing effect on the portfolio, but also acts as a natural hedge. With the increasing integration of the Indian economy with the global economy, economic interest in commodities is rising in India. Policies of liberalization have resulted in dismantling of restrictions on internal and external trade. As a result, market opportunities have expanded considerably. Commodities are becoming increasingly critical for fuelling India's economic growth. According to the Ministry of Consumer Affairs, the total value of commodity futures trade was Rs 21.34 lakh crore in 2005-06, up 274 per cent from Rs 5.71 lakh crore in 2004-05. The paper contains a detailed discussion on role of commodity trading in balancing the portfolio, as a natural hedge and an asset class.
Commodity Trading and Its Implication on Indian Economy

Backdrop

The contribution to GDP and growth rate is always fuelled by growth in primary sector of the economy, as it is the backbone for both secondary and tertiary sectors. Therefore, agriculture has always been critical to economic growth in the country and key to rural development. The fact is also evident from its contribution to the country’s GDP which is almost one fifth and close to two third of the population is employed in it. A minimum four percent growth in agriculture sector is a pre-requisite to double digit growth rate for the country to make it a vibrant and self-sustaining economy. Although agriculture is the key sector of Indian economy, the farmers are one of the poorest population segments in India. The key reasons attributed are the sensitivity of agriculture production towards seasonal vagaries and the fragmented and decentralized commodity trading structure in the country. Due to this, farmers get only a fraction of the true value of their produce while large part is pocketed by the intermediaries. This problem can be mitigated by factors like reducing the number of middlemen in supply chain, inviting more investment in agri-commodity trade and increasing the participation of all the stakeholders. After signing of Agreement on Agriculture under WTO the farm sector has been opened to internal and external challenges, but there stands the opportunity of attracting more investments. Commodities have become increasingly critical to drive India’s economic growth.

To streamline the trading system and assist farmers realize the true potential of their produce, the Government of India, in 2002-03, has demonstrated its commitment to revive the Indian agriculture sector and commodity futures markets. It gave the go-ahead to four exchanges (The National Commodity and Derivative Exchange (NCDEX), The Multi Commodity Exchange of India (MCX), The National Multi Commodity Exchange of India (NMCE) and The National Board of Trading in Derivatives (NBOT)) to offer online trading in commodity derivatives products. Futures and forward contracts allow market participants to transfer risks from those wary of it to those who are hungry for it.
Investors can now have more diverse portfolio and can go beyond stocks, bonds and debt instruments. Commodity Future has a plethora of items to invest in and with the introduction of multi commodity exchanges, the trading has become more transparent, speedy and reliable. The more can be said in less words – out of total GDP of India which stands around Rs. 13207.3 bn, 58 per cent is the share of commodity related or dependent industry and this gives a glimpse of the future growth of market.

**Commodity Exchanges in India**

Commodity exchanges in India are expected to contribute significantly in strengthening Indian economy to face the challenges of globalization. Indian markets are poised to witness further developments in the areas of electronic warehouse receipts (equivalent of dematerialized shares), which would facilitate seamless nationwide spot market for commodities. Amendments to Essential Commodities Act and implementation of Value-Added Tax would enable movement of across states and more unified tax regime, which would facilitate easier trading in commodities. Derivatives contracts in commodities are being considered and this would again boost the commodity risk management markets.

As compared to 59 commodities in January 2005, 94 commodities were being traded in the commodities futures market as of December 2006, and these included major agricultural commodities (rice, wheat, jute, gur, cotton, coffee, major pulses like urad, arahar, chana, edible oilseeds like mustard seed, coconut oil, groundnut oil and sunflower), spices (pepper, chillies, cumin seed and turmeric), metals (aluminium, tin, nickel and, copper), bullion (gold and silver), crude oil, natural gas and polymer, among others. The value wise distribution of commodity trade has been shown in the Figure 1.

![Figure 1. Commodities traded through exchange (value wise)](image)

**Source:** Economic Survey 2006 - 07

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The growth in the commodity derivative trading witnessed in 2005-06 continued during 2006-07. Total volume of trade rose sharply from Rs. 1.29 lakh crore in 2003-04 to Rs. 27.39 lakh crore in 2006-07 (till December 2006). In the first nine months of 2006-07, the volume of trade was already more than Rs. 21.55 lakh crore achieved in the twelve months of 2005-06. Turnover as a proportion of GDP increased from only 4.7 per cent in 2003-04 to 18.3 per cent in 2004-05 and further to 76.8 per cent in 2005-06. The growth in the volume of trading has been primarily propelled by Multi Commodity Exchange (MCX), Mumbai and National Commodity Derivatives Exchange (NCDEX), Mumbai (Figure 2). With these two exchanges accounting for a large share of the number of contracts traded on the exchanges (Table 1).

![Graph showing commodity trading turnover](image)

**Fig 2 Commodity trading Turnover**

Source: Forward Market Commission’s Official Website (www.fmc.gov.in)

The daily average volume of trade in the commodity exchanges in December 2006 was Rs. 12,000 crore. In the fortnight ending on December 31, 2006, gold, silver and copper recorded the highest volumes of trade in MCX, while in NMCEX, pepper, rubber and raw jute, and in NCDEX, guar seed, chana and soya oil had the highest volumes of trade. MCX emerged as the largest commodity futures exchange during 2006-07 both in terms of turnover and number of contracts.
Table 1  **Number of contracts traded in national exchanges**

(*in lakh*)

<table>
<thead>
<tr>
<th>Years</th>
<th>Exchanges</th>
<th>2004-05</th>
<th>2005-06</th>
<th>2006-07*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MCX, Mumbai</td>
<td>33.38</td>
<td>152.45</td>
<td>255.26</td>
</tr>
<tr>
<td></td>
<td>NCDEX, Mumbai</td>
<td>109.95</td>
<td>274.17</td>
<td>236.55</td>
</tr>
<tr>
<td></td>
<td>NMCEX, Ahmedabad</td>
<td>9.56</td>
<td>9.95</td>
<td>28.51</td>
</tr>
</tbody>
</table>

*Till December, 2006

Source: Forward Market Commission

**Commodity-wise Turnover**

The commodity-wise turnover data as published by FMC has revealed that bulk of the trading is concentrated in metals followed by agricultural commodities. The metals have contributed to 63 per cent of the total turnover in May as compared to 54 per cent in April 2007. Among the metals traded in May, the precious metals comprising of gold and silver have accounted for 33 per cent of the total turnover. In the agricultural commodities traded on the commodity exchanges, the highest trading was observed in case of pepper, jeera, soya oil and guar seed with 5 per cent, 4.28 per cent, 3.96 per cent and 3.82 per cent of the total turnover, respectively (Table 2).

The increase in investment demand in gold was due to the growing number of investors who are seeking to use Gold to hedge against different types of risks. In countries like US and Switzerland, the rising price spurred interest from investors driving overall investment demand up. Moreover a recent development has been that in India where traditionally Gold has been consumed as Jewellery, increasing promotion of Gold bars and coins by several banks resulted in Gold being purchased for investment purposes. However the main driver of investment demand was the investment in Gold Exchange Traded Funds whose total off take for the first quarter was around 109 tonnes.
Table: 2 Commodity-wise turnover

<table>
<thead>
<tr>
<th>Commodity</th>
<th>April 2007</th>
<th>May 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trading on all exchanges (Rs cr.)</td>
<td>Percentage to total turnover</td>
</tr>
<tr>
<td>Metal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td>46340</td>
<td>14.86</td>
</tr>
<tr>
<td>Silver</td>
<td>40942</td>
<td>13.13</td>
</tr>
<tr>
<td>Copper</td>
<td>51888</td>
<td>16.64</td>
</tr>
<tr>
<td>Zinc</td>
<td>22094</td>
<td>7.09</td>
</tr>
<tr>
<td>Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude oil</td>
<td>25388</td>
<td>8.14</td>
</tr>
<tr>
<td>Agricultural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepper</td>
<td>22964</td>
<td>7.36</td>
</tr>
<tr>
<td>Jeera</td>
<td>15241</td>
<td>4.89</td>
</tr>
<tr>
<td>Soya oil</td>
<td>13795</td>
<td>4.42</td>
</tr>
<tr>
<td>Gaur seed</td>
<td>6535</td>
<td>2.10</td>
</tr>
<tr>
<td>Chana</td>
<td>12741</td>
<td>4.09</td>
</tr>
<tr>
<td>Mentha oil</td>
<td>1961</td>
<td>0.63</td>
</tr>
</tbody>
</table>

Source: FMC (www.fmc.gov.in)

Equities versus commodities

Investors still keep away from commodities, unable to understand the market. But commodity markets are easier to understand than one imagines. For one, there are relatively few factors at play, unlike in the case of the equity market where a wide spectrum of factors — earnings, free cash flows, interest rates and risk premiums - drives prices. Also unlike equities, commodities do not carry operational and management risks. Though to a certain extent, commodity prices are driven by geopolitics and duty structures, they most often reflect the underlying demand-supply situation. A mismatch between them causes price changes.
Absolute returns from stocks and bonds are definitely higher than pure commodities. But commodity trading carries a lower downside risk than other asset classes, as pricing in commodity future is less volatile compared to equities and bonds. While the average annual volatility is 25 to 30 per cent in benchmark equity indices like the BSE Sensex or NSE's Nifty, it is 12 to 18 per cent in gold, 15 to 25 per cent in silver, 10 to 12 per cent in cotton and 5 to 10 per cent in government securities.

Commodities are good bets to hedge against inflation (Annexure – 1). Gold offers good protection against exchange rate fluctuations, and, in particular, against fluctuations in the value of the US dollar against other leading currencies (Annexure -2). However, unlike stocks, commodity prices are dependent on their demand-supply position, global weather patterns, government policies related to subsidies and taxation and international trading norms as guided by the World Trade Organisation (WTO).

**Proxies against inflation**

Apart from being an asset class, commodities can also be used as instruments to hedge against inflation. In India, a key measure of inflation is the wholesale price index, which comprises both industrial and consumer goods. Though all the goods on the list are not traded in the commodity futures market, investors can use proxies to hedge against inflation. For instance, crude oil can serve as a proxy for diesel and petrol. It may be tempting for investors to invest in commodity stocks rather than in the commodity itself. For example, the ONGC stocks stands as a hedge against fuel price rise. But investors would need to consider the operational risk that comes with the ONGC stock. A drop in production or drying up of wells would impact the stock adversely, limiting its hedging efficacy. But an investment in the commodity itself would not carry this operational risk. Yet, proponents of the equity market would argue that an investment in a commodity stock is more rewarding than in the commodity itself. The leverage effect that an entity derives would come to the aid of these investors, they say. So how does a firm derive this effect? Take the case of a hypothetical company, Black Tea, which earns an operating profit of Rs 20 crore on a revenue base of Rs 100 crore. A 10 per cent increase in unit realization would push its operating profit up to about Rs 30 crore, that is, a 50 per cent
growth (assuming the expenditure remains the same). Using the Enterprise Value/earnings before interest, depreciation, tax and amortization (EBIDTA) model, a fair value of the Black Tea stock would be 50 per cent higher.

A similar leverage effect is possible in the commodity market as well. For instance, while a barrel of crude oil trades at about Rs 3,900 on the MCX, investors need to pay only the margin, Rs 195 per barrel, to take exposure in a trading lot of 100 barrels. A 10 per cent rise in crude oil prices would inflate the gains to Rs 390 or will about double the investment. Of course, this can work just the other way as well.

Exchange has made a detailed presentation on futures trading and its impact on prices to the expert panel. In a study undertaken by the exchange, it was observed that the prices of wheat and pulses were rising due to supply constraints. Earlier this year, the government had banned futures trading in urad, tur, wheat, and rice to keep a check on the prices. Inflation contribution of commodities traded on the exchange was 0.3 per cent while commodities not traded contributed 0.835 to the WPI (Wholesale Price Index).

**Commodity trading: An opportunity for investors**

The fact that India is one of the world's largest agrarian economies makes it a natural territory for trading in commodities. Agriculture's share in India's GDP stands at about 20 per cent, while the commodity sector, including non-agro commodities and bullion-related industries, constitutes about 58 per cent of the country's GDP (Source: www.silverlink.co.in/index.htm).

India is essentially a commodity-based economy and the physical commodity market in India is around Rs 11, 00,000 crore. India also happens to be one of the largest importers of gold (80 per cent of demand of 800 tonnes) and silver (70 per cent of demand of 3,800 tonnes) and edible oil (4.5 mt). It is also the largest producer of cotton (15 per cent of world production at 2.7 mt) apart from sugar and spices. If trading in commodity derivatives becomes five times the size of the physical market, annual volumes would be...
Rs 55,00,000 crore (Rs 22,000 crore per day). Currently the combined volume in the MCX and the NCDEX is around Rs 15,000 crore per day.

The potential to grow is much larger when you consider the fact that in developed countries, the derivatives market is 15 to 20 times the physical market. India’s strategic location between time zones of already established commodity exchanges worldwide makes it a potential global hub for commodities futures trading.

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7. www.silverlink.co.in/index.htm retrieved on 15/08/2007
Annexure -1

(Source: www.golddrivers.com)
Annexure -2

(Source: www.ZealLLC.com)