Chapter – IV

Policy Intervention in Indian Commodity Derivative Market
4.1 Restrictions in Indian Commodity Derivative Trading: An Analysis of Recent Ban

4.1.1 Grounds of selective ban on Commodity Derivative Trade

After the Indian economy embarked upon the process of liberalization and globalization in 1990, the Ministry of Civil Supplies, Consumer Affairs and Public Distribution, Government of India set up a committee under the chairmanship of K.N.Kabra, (Ministry of Civil Supplies, Consumer Affairs and Public Distribution, 1993) to review the operations of commodity future markets and to assess the role of the Forward Markets Commission in the regulation of futures trading which had remained in a state of hibernation, from 1952 to 1990. The committee recommended reintroduction of futures trading and strengthening of Forward Market Commission. The Government accepted most of these recommendations and futures trading were permitted in seventeen recommended commodities.

The process of liberalization initiated in 1993 was revised again on 2007 and 2008 when the Forward Market Commission (FMC) declared a temporary ban on futures trading of red gram (tur), black gram (urad), wheat, rice, chickpeas (chana), soybean oil, potato, rubber, and sugar in three phases citing futures trading as a source of inflationary pressure on spot prices.

Existing literature based on several studies indicate that there have been two main views on this contentious ban. One viewpoint is that the ban is anti-farmer rather than anti-inflation as the futures market provides farmers an opportunity to hedge risks on the basis of signals about the future movements of prices and in the process assist in
price discovery. Futures contracts also help farmers to avoid the cost of storing the
product till the sale is made.

However, the above argument is rejected by P.K. Joshi, Director of the National
Centre for Agricultural Economics and Policy Research (NCAEPR) who quotes "The
futures ban has not made any impact on small and marginal farmers who have little
marketable surplus. It might have made some impact on traders dealing in bulk
quantities" (Joshi, 2008). This has been endorsed by Abhijit Sen, who argues that
most of the farmers, especially the small ones, are geographically or physically far
away from the market and hence are unable to derive any benefit from the commodity
derivative market. (Shastri, 2008).

Again there is a strong argument against the ban as it feared that such a move will
lead to a shift in business to overseas markets and an increase in illegal (dabba)
trading. However, this is countered by FMC Chairman B.C. Khatua who insists that
there won’t be a large scale movement to overseas exchanges because most of the
participants in the futures markets are retail investors. Besides he asserts that it is not
realistic to expect large scale participation of farmers in India futures markets when
even United States of America (USA) and Canada haven’t achieved large-scale
participation (Singh 2008).

Proponents of the selective ban on futures trading argue that futures trading encourage
unnecessary speculation leading to price-rise. In this context, Suneet Chopra, Joint
Secretary of All India Agricultural Workers Union (AIAWU) asserts that traders buy
out the products cheaply through future contracts and raise the prices artificially by
creating false scarcity. He cites the example of global crude oil prices, where a US
Senate Panel inquiry concluded that hedge funds had contributed to the spurt in crude
prices (Chopra 2008). Prominent economist Deepender Singh Hooda again asserts
that a genuine free market for the underlying commodity is a pre-condition for futures
trading (Business Standard, 2007). He argues that since such a genuine free market is neither prevalent nor desirable in India, commodity futures trading should be prohibited.

However Hooda’s argument can be countered by citing the example of wheat. If someone plans to buy wheat at a future date, he is exposed to price risk because the price of wheat is not stable. This fact holds regardless of why the price of wheat might change. It might respond to genuine market forces, or it might be responding to the external manipulation. Whatever be the reason the fact remains that if a buyer of wheat is unsure of the wheat price in the coming months, he is better off obtaining a locked-in price for wheat in that future date. This holds regardless of whether the wheat spot market is a genuine free market or not. It might be argued that someone operating in a futures market could exploit an imperfect spot market, but that would not justify intervention by a market regulator. Whether the spot market is a vibrant free market, or it is vibrantly manipulated externally, the fact remains that if a speculator predicts that the price will go up and adopts a buy position, and then the price does go up, the speculator makes a profit. The arithmetic of futures trading works whether the spot market is genuine or manipulated by an externally. If India is going to make progress towards a well-functioning agricultural sector, then there is no question that futures’ trading belongs in it.

Besides the above discussed adverse effects, restrictions on commodity derivative trading in the form of selective banning of commodities causes large-scale retrenchments and lay-offs of existing workers leading to painful re-adjustments with is accompanied with trauma and sufferings.
4.1.2 Effects of Restrictions in Commodity Derivative Trading on Prices

Government imposed a phase-wise ban on futures trading of agricultural commodities beginning from January, 2007 when red gram (tur) and black gram (urad) were initially banned. This was followed by a ban on wheat and rice in February, 2007 and on chickpeas (channa), soybean-oil, potato, and rubber on May, 2008. Such a policy was justified by citing futures trading as a source of inflationary pressure on spot prices.

There was a continuous reduction in the price of Black Gram since it was banned from trading in the derivative market. Although at first glance this falling trend seemed to justify the ban imposed by the state, however a closer look indicate that such a falling trend was already revealed by the four delivery contract that was in operation at the time of the restriction. Thus on the date of delisting four delivery contracts, February, March, April and May 2007 on black gram were quoting prices which reveal a declining trend, and on that basis spot prices were expected to fall in the immediate future (Table-15). In fact this expectation proved correct with spot prices falling after de-listing from Rs. 3551 on 23rd January 2007 to Rs. 2553 on 23rd August 2007.

### Table 15: Prices of Black Gram (Urad) (Price Rs. per 100 kg)

<table>
<thead>
<tr>
<th>Date/Year</th>
<th>Spot</th>
<th>20 Feb-07</th>
<th>20 Mar-07</th>
<th>20 Apr-07</th>
<th>18 May-07</th>
<th>20 Jun-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 Jan-07</td>
<td>3550.07</td>
<td>3234.00</td>
<td>3145.00</td>
<td>3005.00</td>
<td>2939.00</td>
<td>2905.00</td>
</tr>
<tr>
<td>23 Feb-07</td>
<td>3202.70</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 Mar-07</td>
<td>3235.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 Apr-07</td>
<td>3060.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 May-07</td>
<td>2575.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 Jun-07</td>
<td>2742.65</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 Jul-07</td>
<td>2700.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23 Aug-07</td>
<td>2553.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: i) NCDEX, ii) Office of Economic Adviser, Ministry of Commerce & Industry, Govt. of India, Note: ( - ) indicating the ban on futures trading during that time.
In the case of red gram (tur) spot price continued in its upward spiral despite it being delisted from derivative trading. Thus spot prices kept rising (except for February and May) even after red gram was banned in the commodity derivative market on 23rd January 2007. However a closer look indicates that such an increasing trend was already predicted by the four deliver contract that was in operation at the time of restriction. On that basis spot prices were expected to rise in the immediate future (Table-16). In fact this expectation proved correct with spot prices increasing after delisting from Rs. 2337 on 23rd January 2007 to Rs. 2669.40 on 23rd July 2007.

Table 16: Prices of Red Gram (Tur) (Price Rs. per 100 kg)

<table>
<thead>
<tr>
<th>Date/ Year</th>
<th>Spot and Futures prices of red gram at NCDX</th>
<th>Futures closing prices for contract expiring on</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spot</td>
<td>20 Feb-07</td>
</tr>
<tr>
<td>23 Jan-07</td>
<td>2337.20</td>
<td>2281.00</td>
</tr>
<tr>
<td>23 Feb-07</td>
<td>2244.00</td>
<td>-</td>
</tr>
<tr>
<td>23 Mar-07</td>
<td>2302.65</td>
<td>-</td>
</tr>
<tr>
<td>23 Apr-07</td>
<td>2362.50</td>
<td>-</td>
</tr>
<tr>
<td>23 May-07</td>
<td>2325.00</td>
<td>-</td>
</tr>
<tr>
<td>23 Jun-07</td>
<td>2490.00</td>
<td>-</td>
</tr>
<tr>
<td>23 Jul-07</td>
<td>2669.40</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: i) NCDEX, ii) Office of Economic Adviser, Ministry of Commerce & Industry, Govt. of India
Note: ( - ) indicating the ban on futures trading during that time.

In case of wheat and rice no new trades were allowed post 27th February 2007. However, although listed on National exchanges, rice was hardly traded. As regards wheat it was liquid on NCDEX prior to 27th February 2007, when seven contracts viz., March, April, May, June, July, August & September 2007 were running. Data in Table-17 shows that futures prices in all these contracts were in declining at the point
of de-listing, with extent of declining in further contracts, indicating that spot prices were predicted to fall on arrival of new harvest in April-May and rise moderately thereafter. The post de-listing spot prices recorded by the NCDEX shows that after a brief decline in prices in post harvest period of April and May prices started firming up to above Rs.1000 per quintal in July and August even though there were no new futures trade in this commodity. Thus the Table-17 revealed that futures trading can’t be held responsible for the increase in spot prices because the evidence was at best, is ambiguous.

Table 17: Prices of Wheat (Price Rs. per 100 kg)

<table>
<thead>
<tr>
<th>Date / Year</th>
<th>Spot and Futures prices of wheat at NCDX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spot</td>
</tr>
<tr>
<td></td>
<td>20 Mar-07</td>
</tr>
<tr>
<td>27 Feb-07</td>
<td>1039.85</td>
</tr>
<tr>
<td>27 Mar-07</td>
<td>1057.85</td>
</tr>
<tr>
<td>27 Apr-07</td>
<td>959.20</td>
</tr>
<tr>
<td>26 May-07</td>
<td>917.55</td>
</tr>
<tr>
<td>27 Jun-07</td>
<td>975.00</td>
</tr>
<tr>
<td>27 Jul-07</td>
<td>1052.45</td>
</tr>
<tr>
<td>27 Aug-07</td>
<td>1023.95</td>
</tr>
</tbody>
</table>

Source: i) NCDEX, ii) Office of Economic Adviser, Ministry of Commerce & Industry, Govt.of India
Note: ( - ) indicating the ban on futures trading during that time.

On May 2008 Government of India de-listed trading of potato, chickpeas, rubber and soybean oil. Of the four banned commodities, only the prices of potatoes have decreased steadily since the ban (Figure-2). However, since prices were declining even before the ban, experts have argued that the decrease in prices is due to the bumper crop, and not the ban on trading.
In the case of chickpeas, the prices haven’t moved consistently in a particular direction (Figure-3). They declined immediately after the ban but began rising again in June. They are now higher than they were in January 2008 and lower than they were in May 2008. Chickpea output has increased over the past month.
As per the report release on Financial Express daily on 9 June, 2008 Rubber and refined soy oil have shown approximately 31 per cent and 11 per cent increases in price respectively since the ban was imposed. The two commodities show a high degree of positive correlation with crude oil prices. A rise in crude oil prices leads to a shift in demand from synthetic rubber (a petroleum product) to natural rubber, hence pushing rubber prices up. Increasing crude prices also leads to their substitution by bio-fuels which push up the demand for soybean oil leading to subsequent price increase. Thus spot prices of soybean oil and rubber have been showing rising trends despite their ban in derivative trading, which implies that restrictions on the derivative market as an anti-inflationary policy is not always justifiable.
Figure-4: Spot prices of crude oil, soybean oil and rubber (2008)

Source: www.ncdx.com

Note: Black line indicating the date on which the ban on futures trading of rubber and soybean oil was brought into effect. Spot prices in May 2008 for rubber (per 100 kgs, Kochi), Refined soy oil (per 10 kgs, Indore) Crude oil (Mumbai, per barrel)

As per the Provisional wholesale data provided by the Office of the Economic Advisor (June, 2008), inflation, measured by weekly WPI (Wholesale Price Index), has been rising despite all the measures taken by the Government. Figure-5 shows weekly inflation data for 2008, with the black line indicating the date on which the ban on futures trading was brought into effect. The unchecked price rise despite the ban restrictions in commodity derivative trading again substantiates the argument that banning of commodities in futures market trading cannot be justified on grounds of inflation.
There are concerns and apprehensions about futures trading leading to price rise. The futures market provides a platform for price discovery and risk management. It is nothing but a forecast of likely demand and supply and prices at a future point of time. It does not impact prices. It is important to take steps to contain potential adverse impact on spot prices and also to dispel the negative perception about the market.

Source: Provisional wholesale prices from Office of the Economic Advisor Website (Base year: 1993-94), Note: black line indicating the date on which the ban on futures trading was brought into effect.
4.1.3 Post ban Analysis

The post ban analysis has been organized under four sub-sections:

4.1.3.1 Significance of commodity volumes in the futures market
4.1.3.2 Agriculture production versus population
4.1.3.3 Difficulties in future market and addressing the problems.
4.1.3.4 Addressing the problems

4.1.3.1 Significance of Commodity volumes in the Derivative Market

As per the 2006-2007 Government of India economic survey report, as on December 31, 2006, the average daily turnover of 23 commodity exchanges put together barely crosses Rs 8,000-9,000 crore. Of this the share of fine cereal grains (wheat and rice) is insignificant, ranging below Rs 30 crore per day. Gold, silver and copper recorded the highest volumes of trade in MCX, while in NCDEX, guar seed, chickpeas (chana) and soy oil had the highest volumes of trade. Gold accounted for the largest share (31 per cent) of trade, followed by silver (19 per cent), guar seed (11 per cent) and chickpeas (10 per cent). Clearly, the volumes of commodity futures in red gram (tur), black gram (urad), chickpeas, wheat and rice are insignificant compared to their volume of transaction in the spot market and as such do not affect the whole-sale price index. More specifically, wheat trading volumes in commodity derivative exchanges were very low at 20,000 tonnes in comparison to the total production of around 70 million tonnes in a year, in the country. This obviously means that trading in the derivative market should not really have much effect in the price determined in the spot market.

Sabnivas (2007) strongly refutes the ban by stating that prices of red gram (tur) and black gram (urad) have moved in accordance with the supply conditions. Red gram productions were lower in 2006 at 24.7 lakh tones as against 25.7 lakh tones in 2005,
leading to higher prices. Also in the case of black gram, black gram futures have been lower than spot prices for over three months just before the ban. If the logic that futures prices affect spot prices is true, then spot prices should have come down, which did not happen as supplies are weak. In this regard Phillipose and Meswani (2007) observed that of the four banned commodities chickpeas brown, soyoil, potato and rubber in 2008, only the price of potato declined after the ban due to the bumper crop. Thus futures trading can’t be held responsible for inflation.

Given the insignificant volumes of trading in commodity futures of all the recently banned commodities it is but rational to assume that futures trading cannot and do not have any direct contribution to their price rise of such commodities.

4.1.3.2 Agriculture Production versus Population

As per the statistics of economic survey report (Ministry of Consumer Affairs, Food and Public Distribution, 2006-07), production of pulses has stagnated for 12 years while wheat output has remained static for almost seven years. Population growth and a shift in food habits away from coarse grains with the rise in incomes, has increased the consumption of wheat over a few years. The share of agriculture in GDP is declined to 18.5 per cent in 2006-07. The share of the farm sector's capital formation in GDP dived from 2.2 per cent in the late 1990s to 1.9 per cent in 2005-06.

After an annual average growth of three per cent in first five years of the new millennium starting 2001-02, growth of agriculture in 2006-07 declined to only 2.7 per cent. Low yield per unit area across almost all crops has become a regular feature of Indian agriculture. But the population of India had been increasing by 16.29 million (1.7 percent) every year over the current populations of 1.4 billion. Thus it is strongly argued that demand-supply differential due to the wide gap between the
growth rate of agriculture production and population is the main cause for rising inflation, and not the futures markets.

The stagnation in agriculture is due to low investment, improper fertilizer use, low rate of seeds replacement, a distorted incentive system, low post-harvest value addition etc. Hence the government is better-off addressing the real issues of boosting farm output by expanding irrigation, introducing high-yielding crops and land management, adequate marketing infrastructure, energy relief, seed distribution etc. instead of merely confining itself to restricting the commodity derivative market.

4.1.3.3 Difficulties in Commodity Derivative Market

In an economy of shortages, the flow of huge speculative funds without strict safeguards can and does compromise the interests of both producers and consumers. Quite apart from physical deficit driving up prices, the leverage that margin trading in the commodity bourses offers could have caused the recent extraordinary spike in the prices of some essential food products.

Every mature market economy in the world has active commodity futures trading, either on domestic exchanges or offshore exchanges. Every successful agricultural economy in the world involves an intimate role for commodity futures. As India grows into a mature market economy, we have to learn how these markets function, and build commensurate legal and institutional structures. When faced with difficulties, the correct response is to diagnose and solve problems, not retreat into 1960s Government of India’s blanket ban commodity future policy. In addition, banning futures exchanges will merely send this business underground and overseas. For many decades, while the Government of India thought that futures trading were
banned, it was actually flourishing in an underground market. In addition, hawala money is used all over India to do trading on offshore exchanges.

4.1.3.4 Addressing the problems

The correct response commodity market induced distortions lies in identifying and addressing problems, and not banning the market. Such distortions can be further checked by strengthening public policy intervention as had been successfully implemented in the capital market. Position limit can be fixed and a universal identity number can be given to all market participants and a central surveillance facility needs to add up the position seen for a person across all commodities firms, in order to verify that the position limit is not violated. Further positions need to be aggregated across family members, which require corresponding sophistication in the database for tracking family members. The sound functioning of markets requires complex institutional structures which require sustained efforts over decades on drafting of law and regulations, building human capital, inspection capacity, an appeals process, and arriving at a judicious blend of competition, market design, policy and supervision.

Futures trading have a sound theoretical basis. Price discovery and price risk management are essential in a liberalized trading environment and globalizing markets. Because a healthy futures market is an extension of a distortion-free physical market, it is of utmost importance to address the issues of the cash market, including production, quality and marketing.

3 Position Limit means exchange-set limits on the total number of positions a trader or a group of traders can hold in future contracts on the same side (call or put) of the market. Their objective is to prevent the control and manipulation of the market by a few players, and limit excessive speculation that may destabilize the market.
4.2 Analysis of the Proposed Commodity Transaction Tax on Derivative Trading

4.2.1 Introduction

Commodity Transaction Tax (CTT) for commodity derivative trading in India which will impose on commodity derivative transaction. This tax stipulates that sale of a commodity in commodity derivative market would attract 0.017 percent of CTT calculated on the basis of selling price, which is payable by the seller. The Government of India had proposed to impose CTT in budget 2008-09 on the rationale that imposition of CTT would help to contain volatility in future markets while bringing in more transparency in its operation. This study makes an attempt to assess the impact of proposed transaction tax on liquidity, volatility, prices and efficiency of commodity derivative markets in India.

4.2.2 Commodity Transaction Tax in India

The government of India has proposed to impose CTT at the rate of 0.017 percent of the value of transaction in budget 2008-09 in line with the Securities Transaction Tax (STT) thereby bringing the futures market under the net of service tax.

As per Agricultural Produce Marketing Committee Act (Department of Banking Operations and Development, 2005) no mandi fees, sales tax/VAT, excise, customs and octroi is payable by the farmers. But, the CTT shall be charged in respect of every taxable commodities transaction. It implies that a farmer, who sells a futures contract
to protect himself against price risk, will be required to pay CTT. This implies that the tax benefits provided to the farmers is not extended to their transaction in the commodity derivative market.

A World Bank report (1996) has found that Indian Commodity derivatives market (CDM) is a market with a single product (i.e. - only futures and no option, index futures, or intangible futures) and a single user (i.e. only traders and corporate and no banks, mutual funds or FII), while capital market has a multi-product (cash, futures, options, indices, debt, interest rate) and multi-user (FII, mutual funds, banks, traders) platform. There is a basic difference between the two markets; while the capital market promotes capital formation and appreciation, the commodity derivative market operates to provide insurance against price volatility and to facilitate price discovery. However an insurance product is attractive, only if it is reasonably priced. Hence if derivative contracts becomes very expensive they automatically become unviable where people prefer to remain uninsured rather the pay such a high premium for their protection. In this context unlike STT, CTT presents the danger of making commodity derivative too expensive and hence unviable.

There is an ongoing effort to widen the participation on local commodity exchanges by permitting access to foreign participants, local banks and Mutual Funds. However, the interest from global players will be limited if the cost of transaction on domestic exchanges is significantly higher than international ones. The Forward Market Commission (Table-18) points out that the CTT entails a rise of total transaction cost from Rs. 2.00 per lakh to Rs. 19.25 per lakh, which is more than 950 percent increase on an average. This, it is feared, would act as a deterrent to foreign participation, if imposed. Moreover other Indian players like mutual funds, insurance, banks etc would also shy away from the commodity derivative market defeating the basic objective of market widening.
Table 18: Impact of Commodity Transaction Tax (CTT) on Transaction Cost

<table>
<thead>
<tr>
<th>Cost Components</th>
<th>Transaction cost before CTT</th>
<th>Transaction cost after CTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange Transaction Fees</td>
<td>Rs.2 to 3 per Rs.100000</td>
<td>Rs.2 per Rs.100000</td>
</tr>
<tr>
<td>Service Tax</td>
<td>Nil</td>
<td>Rs.0.25 per Rs.100000</td>
</tr>
<tr>
<td>CTT</td>
<td>Nil</td>
<td>Rs.17 per Rs.100000</td>
</tr>
<tr>
<td>Total Cost</td>
<td>Rs.2 per Rs.100000</td>
<td>Minimum of Rs.19.25 per Rs.100000</td>
</tr>
</tbody>
</table>

Source: Forward Market Commission

Transaction cost in commodity derivatives in India will become very high as compared to international market like NYMEX (New York), CBOT (Chicago) TOCOM (Tokyo), Shanghai Future Exchange (SFE) (Shanghai), Singapore International Monetary Exchange (SIMEX) (Singapore), CME (Chicago), Osaka Securities Exchange (OSE) (Japan), if the proposed CTT is actually implemented. In fact, as the Table-19 indicates such an enormous differential projected evokes the apprehension that existing players might shift to foreign markets if such a situation arise.
Table-19: Projected Transaction Cost (with imposition of CTT):
A Global Comparison

(Cost Comparison of a sale of Rs.100000)

<table>
<thead>
<tr>
<th>Exchanges</th>
<th>Exchange Fee</th>
<th>Service Tax</th>
<th>Regulatory Fee</th>
<th>Stamp Duty</th>
<th>CTT</th>
<th>Others Change</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCX</td>
<td>2.00</td>
<td>0.25</td>
<td>Nil</td>
<td>1.00</td>
<td>17.0</td>
<td>Nil</td>
<td>20.25</td>
</tr>
<tr>
<td>NYMEX</td>
<td>0.74</td>
<td>Nil</td>
<td>0.07</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>0.81</td>
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<tr>
<td>CBOT</td>
<td>2.93</td>
<td>Nil</td>
<td>0.25</td>
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<td>Nil</td>
<td>Nil</td>
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</tr>
<tr>
<td>ICE</td>
<td>0.82</td>
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<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
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<td>TOCOM</td>
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<td>Nil</td>
<td>0.06</td>
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<td>CZCE</td>
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<td>Nil</td>
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<td>NYBOT</td>
<td>2.41</td>
<td>Nil</td>
<td>0.40</td>
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<td>2.82</td>
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<td>CME</td>
<td>2.66</td>
<td>Nil</td>
<td>0.18</td>
<td>Nil</td>
<td>Nil</td>
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<td>2.84</td>
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<td>DCE</td>
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<td>Nil</td>
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</tr>
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<td>MDEX</td>
<td>2.89</td>
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<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
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<td>2.89</td>
</tr>
<tr>
<td>WINNEPEG</td>
<td>5.62</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>5.62</td>
</tr>
</tbody>
</table>

Source: Exchanges websites
Note: The above transaction cost apply only to Electronic transactions and fee structure collected from various exchanges websites as a quick reference guide for general information purposes. Transaction fees may be changed at any time without notice.

The rationale for levying CTT may have been guided by the following argument.

(i) Generating revenue: one of the motives for levying CTT is to generate tax revenues. However actual realization of revenue from CTT may not be significant if the volume of trading falls in response to the CTT. In fact, Umlauf (1993) asserts that traders may migrate their investment to foreign exchanges in order to seek lower transaction tax and retain profit.

(ii) Tracking information for better tax compliance under CTT may have been designed as an anti-evasion measure. But all national commodity exchanges have world class surveillance systems with proper auditing and are regulated
by FMC. Groundfest and Shovel (1991) has indicated that tracking is always possible even without imposition of CTT, and as such this cannot be used as a rationale to justify the imposition of CTT.

(iii) Promoters of CTT believe that such a tax could serve as an anti-volatility instrument by reducing excessive trading. However, there is also the possibility that increase in transaction tax may not necessarily check price volatility but rather induce it.

4.2.3 Impact of Transaction Tax- Global experience

There has been considerable debate on the pros and cons of transaction taxes in the commodity derivative market. The proponents of the tax argue that CTT would generate revenues and discourage speculative trading. While the opponents argue that the benefits of a transaction tax are likely to be outweighed by its potential costs because it would increase the cost of capital and reduce market liquidity (Amihud and Mendelson, 1993).

Empirical evidence suggests that when a government levies or increases transaction tax on local markets, investors shift their trading to overseas markets. For example, in 1987, Japan started imposing a transaction tax on securities and commodity futures ranging between 0.3 percent and 1 percent of the transaction’s full value. Initially, the tax generated 4.2 percent of Japan’s general account revenue in 1988, but by 1993 the revenue share had fallen by 96 percent because of the shift in market volume to less-taxed, offshore locations (Maxim S, Dec-2004). Following that, Japan did away with this tax recognizing that it had diminished its market’s liquidity without raising revenue.

A similar story unfolded in Taiwan which had imposed a transaction tax of 0.05 percent on the value of the commodity futures contract in 1993. This affected the
Taiwan Futures Exchange (TAIFEX), which lost trading volume to the Singapore Exchange (SGX). In 2000, Taiwan reduced the transaction tax to .025 percent, and in 2005 furthered reduced it to 0.01 percent. TAIFEX’s volume then jumped from 31.87 million contracts in 2003, to 92.66 million contracts in 2005. The competitive advantage enjoyed by the SGX diminished and trading shifted back to Taiwan. In fact, although Taiwan’s revenue generated by the transaction tax declined immediately after the tax reductions, but three years later, the increase in volume had caused revenue to exceed previous levels (Chou, Robert and Wang G; May 2006). In the case of Sweden, Umlauf (1993) reports that when the STT was increased to 2 per cent in 1986, 60 per cent of the trading volume of the 11 most actively traded Swedish share classes migrated to London, where there was no transaction tax. This was equal to 30 per cent of the total trading volume. By 1990, the volume had increased to 50 per cent.

Following global experiences, many countries have reduced or completely eliminated their commodity futures transaction taxes and securities transaction taxes. A University of Massachusetts’s study found that of 38 countries with transaction taxes on securities and futures, 17 have reversed their policy and reduced or removed the taxes (Baker, Pollin R and Schberg M; 2001). In the context of the above discussion, imposition of CTT by 0.017 percent would substantially increase India’s transaction cost which may become the highest in the world. The prime beneficiaries of India’s proposed transaction tax on commodity futures trading will likely be India’s economic competitors. China, Taiwan, Malaysia, and Singapore all which have growing commodity futures markets. If the Indian transaction tax is passed these foreign markets will appropriate the jobs, wealth, and foreign investment that would have otherwise been India’s. Unless India learns from history it may lose to China or Singapore what Germany lost to England?
4.3 Warehouse Receipt as an Instrument for Financing

4.3.1 Introduction

Warehouse Receipts (WRS) are documents issued by warehouses to depositors against the commodities deposited in the warehouses, for which the warehouse is the deposit bailee\(^4\). These are negotiable instruments that can be traded, sold, exchanged, used as collateral to support borrowing, or accepted for delivery against a derivative instrument such as a futures contract.

Warehouse Receipts are always backed by underlying commodities and constitutes an integral part of the marketing and financial systems of most industrial countries. The overall efficiency of these markets, particularly in the agri-business sector, is greatly enhanced when producers and commercial entities can convert inventories of agricultural raw materials or intermediary or finished products into a readily tradable device.

4.3.2 Benefits of Warehouse Receipts

WRS are part of a framework of modern market institutions that countries adopt in different forms, to develop agriculture and to render markets more efficient and effective for both consumers and producers. This instrument can play a central role in developing the framework of modern market institutions in the following areas.

WRS can provide surplus-producing farmers (including smallholders) with a market window which can help them secure the best possible deal, allowing them to deal

\[^4\] One to whom Personal Property is entrusted for a particular purpose by another, the bailor, according to the terms of an express or implied agreement.
directly with downstream buyers and financiers, and overcome asymmetric power relationships within the market chain. Smallholder farmers are typically isolated from markets with limited selling alternatives as lack of contact with downstream buyer’s results in their inability to enter into favourable contractual relationship. Farmers (or groups of farmers) can overcome these constraints by depositing their crops in a warehouse that dries, cleans and grades them according to established standards, and holds them until they wish to sell. The warehouse may be linked to a commodity exchange through which the farmer can sell the goods. Alternatively, the farmer may sell privately or make use of a simple settlement mechanism to ensure that he (along with the bank and warehouse operator) gets paid before the goods are removed from the warehouse.

WRS provides a platform for the introduction of other institutional innovations, notably grading, contracting and exchange trading. It is difficult to introduce grading systems into markets where most grain is traded informally and not graded. Buyers don’t look for graded produce because it is unavailable, while farmers don’t grade because of the lack of a price premium. By grading commodities on arrival at warehouses, it is possible to overcome this problem.

A well developed WRS can provide a focus for development of the entire commodity chain, providing incentives for a range of different parties, including farmers, financiers, traders, processors, public sector buyers, food aid managers and investors in storage capacity. This is illustrated in the flow-chart in Figure-6.

WRS can help farmers retain more food for their local consumption requirements. This enables the farmers to avoid repurchase grains in the market price when they experience unanticipated shortages for consumption. In fact, in Africa there are numerous instances of farmers ‘overselling’ crops, which are shipped out to urban centers, only to be shipped back as either grain or meal, and at much higher prices in the lean season (Jayne and Chisvo 1991). Under the circumstances better storage
facilities and localized warehouse receipting can help farmers hold back more crops, avoid circuitous transport and better assure their local food security.

The availability of secure WRS may also allow owners of inventories to borrow abroad in currencies for which real interest rates are lower, particularly if loans are made against inventories of an export commodity, thereby hedging against the foreign exchange risk of foreign borrowing. This practice is followed in Kenya and Uganda, where coffee stocks are often financed in pounds sterling. Also, since high real interest rates are often linked to perceived risks, particularly when it concerns agriculture, secure WRS may reduce risk and lead to lower lending rates. Graph-9 showed how various market participants can avail the benefit of the WRS.

Correctly structured WRS provide secure collateral for banks by assuring holders of the existence and condition of agricultural inventories "sight unseen". Warehouse Receipts can be used by farmers to finance their production and by processors to finance their inventories. If there is a default on any obligation guaranteed with the Warehouse Receipt for instance, a bank loan, the holder has first call on the underlying goods or their monetary equivalent. Collateralizing agricultural inventories will lead to an increase in the availability of credit, reduce its cost, and mobilize external financial resources for the sector.

WRS contribute to the creation of cash and future markets and thus enhance competition. They can form the basis for trading commodities, since they provide all the essential information needed to complete a transaction between a seller and a buyer. Their availability will thus both increase the volume of trade and reduce transaction costs. Since buyers need not see the goods, transactions need not take place at either the storage or the inspection location.
Figure-6: Parties with incentives to participate in WRS

Warehouse receipts system: efficient and of high integrity

- Traders seeking storage and credit
- Input suppliers seeking finance for stockholding
- Traders and other players wishing to engage in arbitrage
- Investors in storage capacity
- Millers and processors seeking supplies of raw materials
- Parastatals and food aid managers seeking to procure and recycle stocks more efficiently
- Farmers seeking high prices, accurate weights and measures and credit
- Banks & MFIs seeking secure & easily liquidated collateral
A transaction can take place informally or on an organized market or exchange. In either case, the Warehouse Receipt forms the basis for the creation of a spot, or cash market. If transactions involve the delivery of goods on a future date, Warehouse Receipts can form the basis for the delivery system in a commodity futures exchange. A broader benefit of Warehouse Receipts is that they increase the confidence of participants, particularly those in the private sector, in market transactions.

WRS can be combined with price-hedging instruments. This combination provides lenders with secure collateral, in the form of Warehouse Receipts, and puts a minimum value on it, through the hedging operation. For example, the Preferential Trade Area (PTA) Bank in Kenya finances coffee exporters by taking their Warehouse Receipts as collateral and also offers them a put option, purchased at the London Commodity Exchange, which guarantees sellers a minimum price for the coffee they have in storage. By assuring a floor price for the stored coffee, the PTA Bank can provide finance for a higher percentage of the value of coffee than it could justify in the absence of the floor price. Banks often advance 80-90 percent of the value of the transaction if it is hedged, but only 50-60 percent if it is not.

Brokers in commodities are required to deploy funds with the exchange to obtain trading limit and the composition of funds is in the form of bank guarantee and fixed deposit. In order to obtain bank guarantee most of the brokers are required to deploy liquid funds which reduced their leveraging capacity as a significant component of their assets are in the form of commodities. This is particularly true for traders in commodities which have long shelf life like castor, pulses, cereals, cotton, rubber etc. Such a requirement can be resolved by provision of bank guarantee to members of commodity exchanges against their holding of WRS.
4.3.3 Various Warehouse Approaches to Commodity Financing and Storage

There are three major categories to commodity financing and storage.

1. Public Warehousing
2. Private Warehousing and
3. Farmer focused approaches

Approach 1: Public Warehousing

Public warehousing, this term does not imply public ownership, but refers to a company storing goods for public in general on behalf of whosoever wishes to deposit in the warehouse and issues to the respective depositors warehouse receipts that can be used for trading purposes or as collateral for raising finance. This in turn divided into-

1. A- Unregulated independent warehouses-
An unregulated independent warehouse set up by the company concerned sets up business, invests in grain handling and storage plant, and uses it to trade and provide a variety of other services, including storage and warehouse receipting. In principle these are purely private initiatives, where the company believes it can best serve its business interests by offering farmers and smaller market intermediaries a choice of marketing arrangements allowing for immediate or later sale. Export Trading Company is already offering the service to farmers in Tanzania. The main limitation to this approach is the small number of companies currently able and willing to offer the service. Banks would not trust many commercial operators to hold third party stock as collateral managers, probably only the largest companies in the Region.
1. B- Warehouses regulated by the State

In this case, the regulatory service is a State-controlled technical service which licenses warehouse and ensures that they perform accordingly to a set of clearly understood rules. This may involve the suspension or revocation of licenses or taking over the management of failing warehouses. There are two major pre-requisites to the establishment of such a service: a) that it can be kept completely free of political influence, avoiding the sort of problems if this cannot be assured one should not try to establish such a service, and b) That there is sufficient demand to make the service self-financing on the basis of user fees. This approach, which builds mainly on the North American experience, is being implemented in Tanzania, Ethiopia and Uganda.

1. C- Warehouses regulated by a trade body

In this case regulation may be carried out on a purely contractual basis, or under delegation of State powers. This approach has quite good prospects in Kenya, though some significant hurdles must be crossed. EAGC (trade body) is already certifying warehouses in Kenya, and can do likewise in other countries. Its survival depends on its establishing fruitful dialogues with Governments. With its membership base, EAGC is moreover well placed to promote exchange trading.

Approach 2: Private Warehousing

This approach would allow private players to issue warehouse receipts against their own stock for the purpose of raising bank financing, and also of transferring title to buyers. Potentially this could increase market efficiency, to the benefit of both farmers and consumers at either ends of the chain. It could help establish a more level playing field among trading companies, making it easier for local operators to access low cost capital. It is moreover a sort of self-propelling innovation, building on the motivations of the proposing company.
It is however quite a risky approach, where the regulator has little direct control over the actions of the licensee, who may move stocks around without the knowledge of a regulator who is not on site. Moreover, if such a warehouse operator goes bankrupt, it may also be difficult for the bank to prevent priority being given to other creditors.

**Approach 3: Farmer focused approaches**

These are approaches involving the storage and financing of commodities deposited (more or less exclusively) by farmers with the objective of supplying local food needs in rural areas or bulking product prior to marketing. There is a general need to increase farmers' role in crop storage. If more is stored locally in villages, rural people will be more food secure in the lean season, notably households who produce insufficient to cover their needs, or who sell early for financial reasons. Occasionally rural storage initiatives have resulted in large increases in seasonal storage, lessening the need for States to establish price stabilization mechanisms.

This is sometimes undertaken through marketing cooperatives. Large and multi-tiered cooperative marketing structures sometimes do not have a very good record, but there is some evidence that primary societies or groups can work effectively in bulking goods for marketing through public warehouses.

An alternative approach involves rural storage financed by a local micro-finance institution (MFI). A highly successful experience in Madagascar suggests that this can work well where the local MFI is integrated into a structured microfinance (MF) network that can provide necessary management and financial support. However the system has had little impact with other crops, due to difficulties with storage and less predictable price pattern. Since 2005, micro finance-linked approaches have gained a foothold with paddy in Tanzania, with upwards of 10,000 tonnes being stored by
farmers per year, but have failed with maize, mainly on account of uncertainty with a crop subject to largely unpredictable Government intervention.

Technological improvements in farm-level storage are a natural complement to financial approaches, appropriate in countries like Malawi where intensified maize production results in storage of pest-susceptible varieties and encourages early disposal. There is a need to revisit this area and explore the scope for relatively trouble-free hermetic storage structures.

4.3.4 Limitations on the use of Warehouse Receipts

The use of Warehouse Receipts is limited in India because of institutional and structural shortcomings, among which the most significant are the following:

- State intervention usually in the form of procurement at minimum support price acts as a disincentive for the private storage industry as it ignores price variations over time or in different regions to allow for profitable storage.
- Lack of an appropriate legal, regulatory, and institutional environment to support a system of Warehouse Receipts; and
- Limited familiarity of the country's commercial and the financial community with Warehouse Receipts.

4.3.5 Preconditions for viability of Warehouse Receipt System

In order for a Warehouse Receipt system to be viable, the economy within which it operates must meet certain conditions. The legal system must support pledge
instruments, such as Warehouse Receipts, as secure collateral. The pertinent legislation must meet several conditions (Government of Indian, 2005):

- *Warehouse Receipts must be functionally equivalent to stored commodities;*
- *The rights, liabilities, and duties of each party to a Warehouse Receipt (for example a farmer, a bank, or a warehouseman) must be clearly defined;*
- *Warehouse Receipts must be freely transferable by delivery and endorsement;*
- *The holder of a Warehouse Receipt must be first in line to receive the stored goods or their fungible equivalent on liquidation or default of the warehouse;* and
- *The prospective recipient of a Warehouse Receipt should be able to determine, before acceptance, if there is a competing claim on the collateral underlying the receipt. The lack of an appropriate legal environment is probably the single most important constraint on the creation and acceptance of Warehouse Receipts in many developing countries.*

Besides the above pre-conditions, the pre-requirements of an efficient WRS includes the practice of independent determination and verification of the quantity and the quality of stored commodities, based on a national grading system (with inspection of warehouses and stored commodities performed, in most cases, by the private sector under license from a government body for agricultural goods, usually the ministry of agriculture); and the availability of property and casualty insurance. The integrity of the system must be assured through performance guarantees. A key prerequisite for the acceptability of Warehouse Receipts by the trade and by banks is the existence of a performance guarantee for warehouses, assuring that the quantities of goods stored match those specified by the Warehouse Receipt and that their quality is the same as or better than that stated on the receipt. Without this guarantee farmers and traders will be reluctant to store their crops and banks will be hesitant to accept Warehouse
Receipts as secure collateral for financing agricultural inventories. The unavailability of performance guarantees - for instance, because of the absence of reliable inspection and certification may occasionally lead to second-best solutions. For example, in Brazil, a system of Warehouse Receipts operates that is limited to products stored in bank-owned warehouses.

4.3.6 Financing against Warehouse Receipts in India

Financial accommodation against WRS is still not very popular in India although it is exhibiting an upward trend. This is indicated in Table-20 which exhibits data of a large Private Sector Bank and three large public sector banks with respect to extension of finance against Warehouse Receipts.

Table-20: Bank Finance against Warehouse Receipts

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Sector Bank</th>
<th>Public Sector Bank A</th>
<th>Public Sector Bank B</th>
<th>Public Sector Bank C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-02</td>
<td>Nil</td>
<td>207.05</td>
<td>3.85</td>
<td>NA</td>
</tr>
<tr>
<td>2002-03</td>
<td>37.26</td>
<td>496.93</td>
<td>3.77</td>
<td>NA</td>
</tr>
<tr>
<td>2003-04</td>
<td>57.92</td>
<td>587.95</td>
<td>2.88</td>
<td>NA</td>
</tr>
<tr>
<td>2004-05</td>
<td>462 (E)</td>
<td>645.56</td>
<td>4.11</td>
<td>1.43</td>
</tr>
</tbody>
</table>

(E) = Estimated, Value = Rupees in crores

Some of the difficulties faced by banks in popularizing financing against Warehouse Receipts and their solutions as envisaged by them, are given below:

- WRS to be made transferable through endorsement under Sale of Goods Act. This will enable the WRS holders to take delivery of the underlying goods on
the same terms and conditions as would have been to the person who had originally deposited the goods.

• Making WRS fully negotiable instrument, under Negotiable Instruments Act 1881, will enhance liquidity of the product and help in mitigating counter-party default risk.

• Electronic maintenance of records of such WRS in a dematerialized form resolves the problem of inadequate speed of transaction, splitting of Warehouse Receipts, forgery and loss of receipts etc.

• For all types of lending to agriculture sector in general and financing against WRS in particular the risk weight for the purpose of capital adequacy may initially be reduced to the level of 75 percent from the current level of 100 percent.

• Difficulty in disposing of a security in case of default would be removed by creating a screen based spot market along with uninterrupted clearing and settlement facilities.

• Receipts issued by Central / State Warehouses are financed by banks but those of Private Warehouses are not freely financed by banks. Since farmers / traders will not deposit their goods with a warehouse whose receipts are not financed by banks viability of the private warehouse is at stake. Hence it is necessary that private WRS should be endorsed by the banking system.

• High margins, up to 40 percent stipulated by banks create liquidity problem for the farmers who are therefore not very keen on obtaining finance by means of WRS. The margins could be reduced to 10-20 percent if the issues regarding quality and grade and ease of disposing the stocks in case of default as mentioned above are solved.

• Some state governments have introduced stamp duty on pledge / hypothecation which have an adverse impact on the nascent WRS in India. Hence at this early stage of development, WRS needs all the concessions from the state until it can bear the burden of state duties.