REPORT OF THE INTER-MINISTERIAL TASK FORCE ON CONVERGENCE OF SECURITIES AND COMMODITY DERIVATIVE MARKETS

PREFACE

With the abolition of prohibition on forward trade in all the commodities at the beginning of the current year, the commodity derivatives market has been totally liberalized. There is an upsurge in the interest in this market. The participants in other financial markets, particularly securities, look forward to the new emerging opportunities offered by this market. However there are some regulatory barriers to permit them to benefit from this opportunity. Ramamoorthy Committee set up by SEBI to look into certain issues relating to fruitful cooperation between these two markets were specifically asked to examine the possibilities of: i) securities brokers participation in the commodities markets; ii) utilization of infrastructural facilities of stock exchanges by commodity exchanges; and iii) stock exchanges as well trading in commodities derivatives. While the committee endorsed the first two issues, on the third issue, it opined that it could be taken up for consideration at a future date as the two markets mature further. The issue of convergence of securities and commodity derivative markets was discussed at various levels in the Government. The idea of convergence of markets, institutions, players and regulators has been proposed by the Finance Minister in a communication to the Minister of Consumer Affairs, Food and Public Distribution, in response to which an inter-ministerial Task Force was constituted under my chairmanship in the Department of Consumer Affairs (DCA) with other members drawn from Department of Economic Affairs, Department of Consumer Affairs, Department of Company Affairs, Forward Markets Commission (FMC) and Securities and Exchange Board of India (SEBI), as given in the Annexure. The Task Force chalked out its own Terms of Reference and held four meetings. The securities exchanges and commodities exchanges were invited to give their views on the subject. The views received from them were considered and discussed in the meetings of the Task Force before drafting the Report. Inputs and support that the Task Force received from Shri Ajay Shah, consultant, Ministry of Finance, Shri D. S. Kolamkar, Director, FMC, Shri C.K.G. Nair, Director, DCA, and Smt. Alice Chacko, Under Secretary, DCA, have been immense. I would like to place on record the appreciation of the Task Force for their contribution.

This Report is being placed on the FMC and DCA websites for wider dissemination. The Task Force proposes to visit a few commodity exchanges and the National Stock Exchange to have an on-the-spot understanding of the issue. A panel discussion on the subject will also be held in the National Conference of Commodity Exchanges being organized by FMC in Mumbai on September 2, 2003. Interested persons are requested to offer their views and comments before the final Report is submitted to the Government.

(Wajahat Habibullah)
I. Backdrop

Though the share of non-agricultural commodities, like metals – particularly bullion - in the basket of commodities traded at the Indian commodity derivatives markets, has a potential to grow rapidly, at least in the near future, at present, it is largely the agricultural commodities, which are traded on the existing commodity derivatives markets. Agriculture is a key sector in the Indian economy. It occupies an important position in India's economy. Even though the share of agriculture in the Gross Domestic Product is declining and estimated to be around 23 per cent, its effective contribution to the national economy is significantly greater on account of its backward and forward linkages with other sectors.

1.2 The policy of the Government has been to protect and promote the agriculture sector through procurement and administered price mechanism. However, in view of the fiscal pressure and that of WTO to reduce direct support to agriculture under Agreement on Agriculture there is a policy shift towards market-oriented approach. In recent years, a major theme in liberalisation of the agricultural sector has been the improved function of product markets. It is increasingly felt that efficient product markets serve to further the interests of the agricultural sector.

1.3 A key aspect of the process of strengthening agricultural markets is the question of obtaining efficient derivatives markets for commodities. The expert committee on strengthening and developing agricultural marketing headed by Shri Shankerlal Guru had recognized the role of forward markets in price-risk management and in facilitating direct marketing. There is now a considerable consensus that the derivatives markets play a valuable role in shaping decisions of the market intermediaries, including by farmers about sowing and investments into inputs, in smoothing price volatility, and in giving farmers and consumers better means of protecting against the adverse effects of volatility. If derivatives markets can function adequately well, then some of the core policy goals of addressing volatility of agricultural prices can be addressed in a market-oriented fashion. This argument has been articulated in the National Agricultural Policy of the Government of India, 2000, which was followed by the removal of the ban on futures trading for all commodities in 2003. In addition, from 1998 onwards, domestic entities facing price risk abroad have been given permissions to utilise foreign derivatives exchanges in addressing their risk management needs.

1.4 Though India is considered as a pioneer in some forms of derivatives
in commodities, the history of commodity derivative trading is chequered. The first derivative market was set up in Mumbai in 1975 in Mumbai, where cotton futures was traded. This was followed by establishment of futures markets in edible oilseeds complex, raw jute and jute goods and bullion. The volumes of trade were reported to be extremely large. With enactment of Defence of India Act, 1935, the futures trading was subjected to restrictions/prohibition from time to time. After independence, the subject of stock exchanges and futures markets, was placed in the Union List. The Union Government enacted an Act, the Forward Contracts (Regulation), 1952, to provide for prohibition of options in commodities and regulation and prohibition of futures trading. The Union Government has been entrusted most of the regulatory powers, which are to be exercised on the recommendations of the Forward Markets Commission set up in 1953.

1.5 The futures markets in commodities, particularly, cotton, oilseeds complex, bullion and raw jute and jute goods were vibrant and attracted huge trading volume. However, in mid-1960s, the Government imposed ban on most of the commodities, except very minor commodities like, pepper and turmeric. The apprehensions about the role of speculation, particularly in the scarcity conditions, prompted the Government to continue the prohibition till very recently. The misconceived apprehensions in some quarters that the futures trade leads to speculative and inflationary tendencies have largely been responsible for the strangulation of this industry. Speculation is an important element of the futures trade as it provides counterparty to the hedgers to transfer their pre-existing price risk. By taking a position in the market for the sake of profit the speculators bring to the market better information input and liquidity thereby enabling the market to play an important economic function of price discovery and risk-management. It is manipulation, and not speculation, which is detrimental to the functioning of the market. Liquidity and risk management and regulatory oversight curb these tendencies thereby making the market function efficiently for the general interest of the stakeholders and the economy.

1.6 The extended period of prohibition, resulted in driving a part of the trade underground, as a large number of participants shifted to other professions, including securities market, which has been functioning uninterruptedly. There were extremely rapid advances in the systems of brokerages, market designs, trading, clearing, settlement, and governance of exchanges since 1970s, when derivatives in financial instruments were introduced in the western markets. Commodity derivative markets in India remained isolated from these developments on account of restrictive policies.

1.7 Liberalisation and reforms in commodity derivative markets started
in right earnest only towards the end of the millennium. Three-pronged strategy was adopted to develop the commodity derivative markets. First, major legal, regulatory and policy-impediments for development of commodity derivative markets have been largely removed. For instance, restrictions on long-term party-to-party merchandising contracts were removed. The liberal and developmental approach of the Government towards the policies relating to commodity derivatives was announced unambiguously in the National Agricultural Policy (2000) and in 2001-2002, Budget speech of the Finance Minister. In pursuance of this approach, the prohibition on derivative trading in all the commodities has been withdrawn. The agenda of liberalization and reforms is however unfinished.

1.8 Second, with a view to upgrading the existing exchanges, best international systems and practices in respect of brokerages, trading, clearing, settlements, market monitoring and surveillance, regulation were studied through experts in the field. Awareness about these systems and practices was spread through wide dissemination through workshops, seminars and training programmes and by organizing visits of the exchange office-bearers, traders and regulator to the developed markets abroad. A large number of the practices and systems were introduced in the existing exchanges. With a view to avoiding disruption, most of the upgradation was gradual and incremental in nature. This had salutary effect on the market, as is indicated in its growth. Total volume of trade has shown a spurt in recent years. It showed about two-fold increase from 217.72 lakh tonnes in the year 2001-2002 to 414.11 lakh tones in the year 2002-2003. In value terms, the turnover, which was about Rs.35,000 crore in 2001-02, has spurted to cross Rs.100,000 crore in 2002-03, and is expected to exceed Rs.150,000 crore in 2003-04. The increase in the volume and value of the trade is concentrated largely in one commodity, soybean oil, and one Exchange, National Board of Trade.

1.9 Third, an initiative was taken to create competition, encourage the Exchanges to trade multiple products and to establish new modern multi-commodity exchanges, which would follow the best international practices and systems. In pursuance of this initiative, the Government have already recognized one Exchange at Ahmedabad as National Commodity Exchange and ‘in-principle’ approval has been granted to three other exchanges. The expectations from these Exchanges are very high not only because all of them will be demutualised, electronic Exchanges, but also because, these are promoted by major public/private sector corporations, like, ICICI, NSE, NABARD, LIC, CWC, NAFED, etc. These exchanges have already invested their resources to create state-of-the-art market infrastructure, and are expected to be operational by October, 2003.
1.10 With a view to maintaining the momentum of development of commodity derivative market, it would be necessary to expedite action on the unfinished agenda of liberalization and reforms, both at legal and policy level as well as at the level of regulator. The proposals to allow options in commodities and provide for registration of brokers by amending the Forward Contracts (Regulation) Act suitably has been pending in the Parliament for over five years. The issue of differential tax structure, particularly stamp duty and octroi is yet to be resolved. Some of the commodities like cotton continue to be subject to restrictions under the Essential Commodities Act. The progress in providing for national-level regulation on warehouses so as to pave the way for making warehouse receipts issued by the regulated warehouses negotiable and tradable across the country is slow.

1.11 To provide a developmental thrust, the existing commodity market needs a regulator with leadership, vision, capabilities, resources and empowerment. At present, most of the regulatory powers in respect of the commodity derivative markets are with the Central Government, and the Forward Markets Commission exercises the delegated powers or plays a recommendatory role. Forward Markets Commission continues to be a subordinate office of the Government department and has no autonomy to garner resources – human, financial and infrastructural – to discharge the responsibility expected of a regulator in the dramatically changed environment. The securities market had also faced similar situation when it was liberalized in early nineties. Establishment of an independent regulator with adequate resources and empowerment changed the very face of the market, though the path was not smooth and episode-free. Nevertheless, the regulator was able to respond to the challenges of the market. In this context, it is thought fit to consider taking either a similar step for strengthening and restructuring the Forward Markets Commission or to institutionalize some form of coordination or convergence with the Security Regulator, whose functions in respect of securities derivatives have a lot in common with the functions of the Commodity derivatives regulator.

1.12 The idea of convergence however was conceived at the level of participants, when the commodity derivatives exchanges demanded removal of restrictions on participation of stock-brokers. SEBI appointed a committee headed by Mr. Ramamoorthy to make recommendation on the issue of removal of restrictions contained in Rule 8(1)(f) of the S.C.(R) Rules, on participation of Stock brokers in commodity derivatives markets. The terms of references of the Committee also included use of the infrastructure available with the Stock Exchanges for derivatives trading in commodities.
Based on the recommendations of the Committee, a step has been taken in the direction of amending the Securities Contracts (Regulation) Rule to remove restriction on the stock-brokers from participating in the commodity derivatives market. The Committee felt that there was no bar on commodity exchanges using the idle infrastructure of the stock exchanges; but the question of allowing stock exchanges to trade commodity derivatives was a much broader issue and some high-powered inter-ministerial committee or task force can address that issue.

1.13 Government had appointed a Task Force under the chairmanship Shri R.C.A. Jain to make recommendations on implementation issues relating to the Report of the Expert Group on Strengthening Agricultural Marketing, headed by Shri Shankerlal Guru. The Task Force set up a few groups on different areas covered by the Guru Committee Report. The Group on Commodity Forward Markets headed by Dr. Kalyan Raipuria, recommended that the policy direction should be moving towards convergence of futures markets, i.e., the commodities derivatives exchanges should be free to trade in either or both the categories of derivatives products, like in the case of major derivatives exchanges in the world such as CBOT, LIFFE etc. The Group recognized that such a step would not only increase volumes, but would also benefit in terms of scale economies and in taking full advantage of specialized expertise in derivative trading.

1.14 The idea of convergence of the markets, institutions, players and regulation was also proposed by the Finance Minister in a communication to the Minister of Consumer Affairs, Food and Public Distribution, in response to which this Inter-Ministerial Task Force has been constituted, under the Chairmanship of Shri Wajahat Habibullah, Secretary to the Government of India, Department of Consumer Affairs, vide O.M. No 21/44/IT/2000 dated May, 14, 2003, a copy of which is enclosed at Annex - I.

II. RATIONALE FOR CONVERGENCE

Any rationale for convergence should hinge upon its capacity to ensure growth, liquidity and safety of the market as well as to improve accessibility to the public by spreading the network and reduction in transaction costs. Various steps have been taken to revitalize the commodity market. Abolition of prohibition on forward trading on all commodities by issuing a notification in April 2003 in respect of the last batch of banned commodities has opened up the market for new opportunities and challenges. The existing infrastructure and institutions are being upgraded; new exchanges have been approved with the mandate to set up world-class infrastructure and systems; more participants with resources, skills and expertise are being attracted from the securities markets by removing legal
hurdles in the matter. There is also a view that the commodity market will get further fillip if this participation is broadened to all segments of the securities market by way of convergence of the two. This intermarriage of these markets has a potential of providing growth impetus to commodity derivatives and open new avenues of business opportunities to the securities market participants thereby deepening and broadening the market.

2.2 Even though there are some differences in commodity and financial derivatives markets, they have close resemblance in so far as trade practices and mechanism are concerned. Indian Securities market has witnessed significant structural change since 1990s. Some of the changes are enumerated below:

Reforms in Securities Market

2.2.1 Indian securities markets since 1990s have witnessed significant structural changes. With the abolition of the Office of the Controller of Capital Issues (CCI) and the repeal of Control of Capital Issues Act (CCI Act) in 1992, issuers have freedom to access securities market and price their issues freely. This has resulted in a phenomenal rise in the amount of capital raised by companies. An amount of over Rs. 1,29538 crore has been raised by the companies during the period, 1992-93 to 2000-2001. Market capitalisation increased from Rs 90,800 crore to Rs 5,71,554 crore (for BSE) between end March 1991 to end March 2001.

2.2.2 Various significant changes were implemented in the Secondary market in order to ensure transparency, safety and integrity of the market. The trading platform was computerized and the open outcry system was replaced by electronic, order book system. The automation of exchanges has improved the level of transparency, reduced spreads and lowered transaction costs. It has also facilitated connectivity and has enabled the exchanges to widen their reach to all corners of the country. The transformation to a technology based trading systems and solutions, was complemented by the numerous safety mechanisms, which were put in place at the same time. Clearing houses were set up to act as a counterparty for all trades. Settlement guarantee funds, risk based margining structure, exposure and capital adequacy norms were stipulated in order to contain the risk and prevent settlement failures. The Settlement cycle was reduced and from the era of Accounting Period Settlement of upto 14 days, the market has attained T+2 rolling settlement. The dematerialization of securities has been made possible with the enactment of the Depository Act in 1996. About 99% of the deliveries on the NSE and BSE are in dematerialised form. In other exchanges also the dematerialized deliveries account for more that 90 % of the total
Developmental role of SEBI

2.2.3 SEBI as the sole regulator of securities market, has taken several bold initiatives and has successfully implemented major reforms. The Listing Agreement has been amended to strengthen the disclosure requirements. SEBI has brought in an electronic disclosure system (EDIFAR) to facilitate disclosure and provide access to information. A Central Listing Authority has also been set up to bring about uniformity in the exercise of due diligence in scrutinising listing applications. A Corporate Governance code has also been laid down by SEBI to increase shareholder value and increase investor confidence. Book building processes have been standardized in order to facilitate transparent and efficient price discovery process. SEBI has also approved a scheme for demutualization and corporatisation of the exchanges.

2.2.4 Stock exchanges are required to provide adequate infrastructure and risk containment measure in order to be granted recognition by SEBI. With the advent of technology, the open outcry system, accounting period settlement systems and tedious transfer of physical shares were all replaced speedily by electronic trading, T+2 rolling settlement and dematerialised shares. The exchanges also have to set up an Investor Protection Fund to provide compensation to the investor for defaults of member brokers of the exchange.

2.2.5 SEBI has issued regulations for regulating every category of intermediary in the securities markets. These intermediaries are required to be registered with SEBI and SEBI has been empowered to levy stringent penalties in cases of non-compliances. A code of conduct has been laid down to discipline and regulate the activities of all the intermediaries.

2.2.6 SEBI has been instrumental in effecting changes in the legal and institutional framework to facilitate introduction of derivatives in securities market. This market now offers a complete array of exchange traded derivative contracts consisting of Index options, Index futures, Stock options, Single stock futures and Interest rate futures contracts.

2.2.7 Though SEBI had faced a number of challenges in the past in its role as a regulator and developer of capital markets, yet, with continued perseverance, it has brought about a sea change in the securities markets over the decade. SEBI has faced criticism for failure to arrest stock market scam in 2001, but the scam also highlighted the limitations of SEBI's powers in promoting the orderly development and regulation of securities markets.
Subsequently, this handicap was corrected by adequately empowering SEBI by giving it powers such as, search and seizure, imposition of monetary penalty up to Rs 25 crores, etc. This has enhanced the characteristics of SEBI being an independent and powerful regulator. Nevertheless, there are reports of widespread “dabba” trading in securities for which SEBI has initiated investigation. The success of Derivatives and the speedy transformation to Dematerialised shares serve as a benchmark for the world. The reforms made by SEBI have made the Indian securities markets comparable in all respects to that of international securities markets.

Status of Securities Market

2.3 As on date, there are 23 recognised Exchanges in the country. Of these, only two Exchanges, NSE and BSE, are vibrant and account for over 99% of total turnover in the securities market. Status of these exchanges in respect of various aspects are given below:

2.3.1 Trading

Both NSE and BSE are fully automated using anonymous order matching. They trade in wide range of products, viz., Equity, Government bonds, Corporate bonds, Futures and options on equity index, Futures and options on individual stocks, Futures on government bonds and have nationwide distribution spread over 5,000 branch offices. In addition, trading takes place over the Internet, thus greatly multiplying the number of screens from where access is possible. Two principal cities account for almost 50% of the volumes in these Exchanges.

2.3.2 Easy access to intermediation

There are no complex procedures or hurdles faced in creating a broking firm on the securities markets. India is now a remarkably open regime, by world standards, in terms of entry by foreign securities firms also. This has ensured a high degree of competition and reduction in intermediation cost.

2.3.3 Membership

NSE and BSE together have over 1000 active brokerage firms. These firms have a combined net worth in excess of Rs.1,000 crore, and employ over 20,000 staff with specialised skills in securities markets.

2.3.4 Certification requirements
SEBI has made it mandatory that individuals who work at brokerage firms must pass a certification examination, which is directly linked to their work profile. There are certification products for the spot market, derivatives market, depository operations, etc.

2.3.5 **High transaction-processing capacity**

In terms of number of trades in the year 2002, NSE was ranked #3 in the world and BSE was ranked #5. This is the only ranking in finance where India figures in the top ten nations of the world.

2.3.6 **Risk management**

The National Securities Clearing Corporation (NSCC) is a modern clearing corporation, which performs novation. That is, it adopts legal liability for the full net settlement obligations of every clearing member. This eliminates counterparty credit risk. NSE and BSE have adopted modern risk management systems computing Value at Risk in real-time, in order to eliminate the risk that emanates from delays between the trade and the moment at which collateral is in place.

2.3.7 **Dematerialised settlement**

National Securities Depository Ltd. (NSDL) and Central Securities Depository Ltd. (CSDL) are depositories, which use dematerialisation. Their feature-set is highly modern, and ahead of many other depositories in India and abroad. Almost all securities settlement is done using these depositories. NSDL has one of the lowest charge structures amongst depositories in the world.

2.3.8 **Modern governance principles**

NSE features a complete separation between three groups of (a) shareholders (b) managers and (c) trading members. BSE is at present a mutual form of Exchange and is likely to be demutualised in due course.

2.3.9 **Sound and sustainable revenue model**

All the institutions of the securities markets - i.e. NSE, BSE, NSDL, NSCC and CCIL - are sustained by tariffs, which are charged to users. User charges are the only source of resources for these institutions. There are no subsidies from the government.
2.3.10 Regulatory capacity

SEBI is an independent regulator and has built the regulatory capacity, which has dealt with these enormous changes over the last decade. In particular, the SEBI Risk Management Committee plays a strong role in supervising the risk containment policies used in real-time, prescribes minimum statistical models, which should be used, etc. SEBI is part of the 'HLCC' consultation mechanism through which the multiple regulators in the country interact and resolve inter-agency differences.

2.3.11 Huge Investment

Over Rs.1,500 crore of capital expenditure has been invested, over the last decade, in the creation of this 'ecosystem' of the securities industry, comprising exchange institutions and brokerage firms.

Status of Commodity Market

2.4 During the last 4-5 years efforts have been made, to introduce some of these features in the commodity exchanges with varying degree of success. The network is spreading speedily, modern practices such as daily clearing, time stamping and immediate reporting, transparent clearing and settlement practices, professional management and broad-based governance have been introduced in the commexes. Margining and risk management practices have been strengthened. Adoption of modern technology is at various stages in different exchanges. The back-office operations have been computerized in majority of 21 existing exchanges, screen based anonymous order matching have been introduced in three exchanges. Exchanges have amended their articles to provide for induction of independent directors on their boards to the extent of 1/3rd of the total strength. The older exchanges have not been able to generate resources and are therefore not able to demonstrate the seriousness and flexibility to introduce these reforms. The baggage of legacy is also coming in the way of change. However, to be fair to the exchanges some of the blame lies with the legal and regulatory barriers. Till April 2003, there was ban on futures trade in most of the important commodities thereby restricting the scope for growth by diversifying to new commodities. Even now the freedom to diversify does not exist to most of the exchanges (except nationwide multi-commodity exchanges) as they have to seek fresh recognition every time they intend to add another commodity to their portfolio. The experience of reforms process in securities market in the early nineties is almost being replayed in the commodity market.
2.4.2 The commodity market has taken significant strides during the last few years. The prohibitions on futures trade have been abolished. Four new nationwide multi-commodity Exchanges have been approved, one of which have already commenced trade; other three are likely to commence trading in near future. These Exchanges will be technology driven and will adopt international best practices of risk management for trading, clearing and settlement. They are demutualised Exchanges. Two of these Exchanges are promoted by the reputed institutions. One of the Exchanges, i.e., National Multi-commodity Exchange of India Ltd. (NMCEIL), has Central Warehousing Corporation, NAFED (Government of India enterprises) and Gujarat Agro Industries Corporation (Gujarat Government) as prominent promoters. The National Commodities Derivative Exchange Ltd. (NCDEX) has been promoted by a consortium comprising ICICI Bank, National Stock Exchange, Life Insurance Corporation, and NABARD – all of them being leaders in their respective fields. The other two Exchanges have also committed to invite institutional participation. They propose to set up an efficient Warehouse Receipt based delivery mechanism, which will have bearing not only on futures market but also upstream in the spot market and collateral financing. The impending competition has generated vibrancy among some of the existing Exchanges. The Volume of Trade during 2002-2003 registered a jump of about 200%. In value terms, the trade increased from Rs.35,000 crore in 2001-2002 to over Rs. One lakh crore in 2002-2003.

**Expected Gains from convergence**

2.5 Expected Gains from convergence In terms of some technical issues are given below:

*a. Opportunity to speed up development of commodity market.*

If derivatives in commodities resemble securities, then the developmental challenge of obtaining sound institutions for trading commodity derivatives can be eased by using the stable and mature institutions that are found in the securities markets. The new multi-commodity exchanges have been approved recently and may take some time to pick up speed. Efforts can be speeded up if the institutions of the securities markets are used, which are available off the shelf. This would speed up the pace at which modern market institutions become available to farmers, and accelerate the growth rate of the agricultural sector.

*b. Commodity derivatives resemble securities*
There are strong commonalities between commodity derivatives and securities derivatives. A commodity futures contract is tradable and fungible. Almost all commodity futures contracts are squared off, and do not go to delivery. In this case, the users of commodity futures markets are using the futures for purely financial purposes. Thus, almost all commodity futures contracts are akin to securities; however there are certain differences with regard to delivery and settlement. In this case, knowledge and procedures for trading in securities is directly pertinent to trading in commodity futures.

c. Economies of scale

An enormous investment has gone into building India's securities infrastructure. This infrastructure can be used to obtain trading in commodity derivatives at a small incremental cost. Conversely, the viability of the new multi-commodity exchanges would be enhanced if they could trade derivatives on all underlyings. This would serve to reduce the extent to which capital is required in creating the desired institutional capacity for commodity sector. It is however quite possible that convergence would provide economies of scale to some of the leading stock/commodity exchanges, particularly, BSE and NSE only and other exchanges might see their liquidity migrating to these exchanges.

d. Economies of scope

In risk management, if the clearing corporation holds a single settlement guarantee fund, then it benefits from diversification. Hence, the collateral required in order to obtain a given level of safety is lower when a clearing corporation does novation for a wide variety of products with low correlations, as compared with having separate clearing corporations for each area. [The paper Margins and the Safety of Clearing Houses by Gordon Gemmill, Journal of Banking and Finance, October 1994, emphasises this point]. Existing SEBI and RBI rules prohibit such integration of the settlement guarantee fund. However, the basic opportunity to reduce the capital requirements of the clearing corporation in this fashion is there, and will be extended if commodity markets are also brought alongside equities, interest rates and credit risk.

e. Possibility of strengthening the commodity spot market

If the commodity futures markets obtain strong liquidity and price discovery in a transparent, anonymous, order matching environment, then this is likely to have a considerable impact upon the underlying spot market, which is likely to remain a fragmented, OTC market for many years. To the
extent that convergence helps speed up the migration of commodity futures markets into screen-based, anonymous order matching, this would thus indirectly assist the strengthening of agricultural spot markets.

f. Better serving users

It is useful to emphasise that the convergence approach yields superior efficiency and sophistication, even when a brokerage firm chooses to be highly specialised. In the convergence approach, a brokerage firm that focuses upon cotton would simultaneously be able to access derivatives on cotton, equities trading about firms which deal with cotton, and derivatives on currencies (which are relevant for the currency risk involved in imports and exports of cotton). Thus, even for a brokerage firm that seeks to be a specialist on cotton, the convergence approach gives direct access to a more rich range of traded products as compared with the traditional approach. There is however a different point of view, viz., the skills required to price securities are very different and therefore the services that the stock broker could provide to the participants in commodity derivatives market would be limited.

g. Impact upon informal market

Presently, a major problem faced with commodity futures trading is a substantial informal market, which is illegal under Indian law. There have been persistent problems in fully eliminating illegal trading given limitations of enforcement mechanisms. The convergence approach offers the possibility of a market-based mechanism through which informal trading can be curbed, except to the extent that the participants choose informal markets to avoid taxation, elaborate paper-work, requirement of maintaining high net worth and service infrastructure and/or to invest black money to satisfy speculative or gambling instinct. If the legal markets are able to rapidly migrate onto sophisticated, liquid, low-cost platforms, then this would spontaneously pull users into these platforms. Liquidity has a natural monopoly character, and once exchanges achieves a certain minimal ‘critical mass’ of liquidity, there are strong incentives for each user of the market to seek the liquidity of exchanges. This is likely to ease the enforcement difficulties faced in eliminating illegal trading.

h. Consequences for government

At present, the Indian government engages in many policy
measures, which interact with agricultural spot markets. These policies are unaffected by the convergence question. Whether commodity futures markets are closely integrated with securities markets or not has no impact upon the conduct of policies such as public procurement, support prices, etc. To the extent that convergence helps strengthen price discovery on the commodity futures markets, this would facilitate the design of public policy. If shortages or gluts are expected to take place at a future date, this would be revealed in the futures price well ahead of time. This information signal would help government mount an early response, if desired.

i. Simplicity

There would be important gains for the individuals and firms, if a broad range of derivative products came under a single, simple set of rules and procedures. This includes the operations of the intermediaries, exchanges, regulation, taxation, accounting, IT interfaces, information sources, etc. This would reduce the overhead costs associated with doing transactions on these markets

**Divergences, Apprehensions and Concerns**

2.6.1 Whereas the strengths of securities markets and the expected gains of convergence to commodity market are significant, the divergences, apprehensions and concerns are also many, which need to be addressed to. Without addressing these issues there will be hindrances in bringing in convergence or reaping the full benefits of convergence. Some of the issues are:

2.6.2 Though derivatives in commodities resemble securities and financial futures and provide many of the same economic functions, there are some major differences. First, because financial futures generally have actively traded cash markets, cash prices are generally not “discovered” in the futures market. In fact, futures contracts are often settled from cash or indexes of cash prices. Second, the delivery and settlement process is different. A particularly useful function of exchanges is the facilitation and oversight of contract expirations and the related settlement, delivery or exchange of futures for physicals. Exchanges not only set the terms of delivery, but also oversee the actual delivery as well as the credit verification of members making or taking delivery. In addition, exchanges perform other financial services related to trading, delivery, clearing, and margining. For financial derivatives transactions, exchange delivery mechanisms or oversight are less necessary and can be alternatively accomplished as cash transactions through other institutions or inter-institutional arrangements.
2.6.3 There are fears that in the large securities exchanges, there would be a certain lack of focus upon agricultural commodities and the focus would be on organizing derivative trading only in commodities with close semblance to financials viz., bullion. The most important policy goal, and policy concern, is safeguarding of the interests of producers – farmers in particular, consumers as well as manufacturers and other functionaries in the supply-chain.

2.6.4 Concerns are expressed that unlike securities market, where the impact of the price volatility is on the willing participants in the market – the impact of the sharp rise or fall in price in commodities is borne by the entire economy, i.e., largely by innocent bystanders.

2.6.5 It is apprehended that the possibilities of convergence are limited, insofar as commodity futures trading requires highly specialised knowledge, which is different from that required for securities trading. Unlike the securities market, the factors affecting commodity prices are more complex and commodity-specific. It is also stated that the firms that engage in commodity futures trading differ from the firms that engage in securities trading.

2.6.6 There are strong concerns that removing restrictions on stock exchanges from trading commodity derivatives, would affect the viability of the exchanges, which have been granted in-principle approval only recently. These Exchanges were required to set up modern infrastructure involving huge investment. Changing the competitive environment so dramatically mid-stream raises the issue of fairness. It is apprehended that the established stock exchanges having huge reserves would easily be able to wipe out competition by leveraging their available resources and infrastructure.

2.6.7 Though allowing commodity exchanges to trade securities would appear to be equitable on paper, in reality the existing commodity exchanges will not be able to meet the high regulatory bars set by the SEBI for grant of recognition. This is also true for intermediaries in the commodity derivatives market. An illustrative statement indicating divergences between the two markets is given below:

Table I:  **Divergences between Security and Commodity Derivatives Markets**

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<th>Areas</th>
<th>Divergences</th>
<th>Action required for convergence</th>
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<tr>
<th></th>
<th>Online trading</th>
<th>Besides domain knowledge of commodity markets, agri-products may require different process of online application giving flexibility for outcry system.</th>
<th>Traditional outcry system may have to be allowed for some time as requested by largest Exchange, NBOT, Indore.</th>
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<td>2.</td>
<td>Cash Basis</td>
<td>Agri-markets do not have liquid cash market to obtain price discovery.</td>
<td>Integration of agri-markets and financial sector to speed up.</td>
</tr>
<tr>
<td>3.</td>
<td>Market Determinants</td>
<td>Agri-products have different shelf life, demand-supply factors, and price determination. Metals notably gold also have different market conditions.</td>
<td>Standardisation of products and suitable storage facilities need to be build up.</td>
</tr>
<tr>
<td>4.</td>
<td>Storage of products</td>
<td>Scale and mode of depositing/warehousing structurally different.</td>
<td>Warehouse receipt system (WRS) must for commodity futures.</td>
</tr>
<tr>
<td>5.</td>
<td>Taxation</td>
<td>Indirect taxation cascades in commodities. IT treatment also different.</td>
<td>Losses due to speculation not adjusted in corporate taxation in case of commodity futures – only carried forward.</td>
</tr>
<tr>
<td>6.</td>
<td>Regulation</td>
<td>Compliance of network, capital adequacy, margins, exposure norms different for commodity trading</td>
<td>Harmonisation possible though separate regulations to continue.</td>
</tr>
<tr>
<td>7.</td>
<td>Role of banks and Mutual Funds</td>
<td>Banks will always be wary of greater uncertainties in commodities futures.</td>
<td>Fragmentation of commodity futures and markets to be overcome through agricultural approaches.</td>
</tr>
<tr>
<td>8.</td>
<td>Role of RBI</td>
<td>Central Bank’s strict guidelines may be difficult to apply in commodity markets</td>
<td></td>
</tr>
</tbody>
</table>
2.6.8 It would therefore be necessary to address these concerns, apprehensions and, if necessary, find graceful transition paths through which the adverse impact upon existing firms and exchanges could be smoothed, and adversely affected entities be given time to adapt to the new institutional environment.

2.7 Attaining growth in commodity market without convergence will need to replicate the infrastructure, regulation resources etc and may be slow. The world over exchanges trade both in physical and financial derivatives as is indicated in Table 2 below:

<table>
<thead>
<tr>
<th>Country</th>
<th>Exchange</th>
<th>Underlyings</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>South African Futures Exchange</td>
<td>Equities, currency, debt, gold, and commodities.</td>
</tr>
<tr>
<td>Brazil</td>
<td>Bolsa de Mercadorias and Futuros</td>
<td>Equities, currency, debt, and commodities.</td>
</tr>
<tr>
<td>Australia</td>
<td>Australian Stock Exchange</td>
<td>Equities, gold, grain, rates, and commodities.</td>
</tr>
<tr>
<td>Country</td>
<td>Exchange Name</td>
<td>Products Offered</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>South Korea</td>
<td>Korea Futures Exchange</td>
<td>Currencies, interest rates, gold, equities, bonds.</td>
</tr>
<tr>
<td>Brazil</td>
<td>Bolsa de Mercadorias and Futuros</td>
<td>Debt, equity, currencies, gold, commodities.</td>
</tr>
<tr>
<td>Australia</td>
<td>Australian Stock Exchange</td>
<td>Equities, gold, grain, interest rates.</td>
</tr>
<tr>
<td></td>
<td>Sydney Futures Exchange</td>
<td>Interest rates, equities, currencies, commodities.</td>
</tr>
<tr>
<td>France</td>
<td>Matif</td>
<td>Interest rates, equities, commodities.</td>
</tr>
<tr>
<td>Singapore</td>
<td>Singapore Stock Exchange</td>
<td>Com Commodities, interest rates, equities, currencies.</td>
</tr>
<tr>
<td>UK</td>
<td>LIFFE</td>
<td>Interest rates, equities, commodities.</td>
</tr>
<tr>
<td>US</td>
<td>CME</td>
<td>Agricultural and industrial commodities, equities, currencies, interest rates.</td>
</tr>
<tr>
<td></td>
<td>CBOT</td>
<td>Commodities, equities, interest rates.</td>
</tr>
<tr>
<td></td>
<td>NYBOT</td>
<td>Commodities, currencies, equities.</td>
</tr>
</tbody>
</table>

2.8 The financial futures have become preponderant trade in exchange and thus reducing the unit cost of transaction. The explosive growth in financial futures after they appeared on the scene in 1970s’ has given thrust to the futures market, which the flat growth in physical futures could not have achieved. As may be seen from the table below, in 2002, there were 2.2
billion futures changing hands in 30 countries. Only about 20% of these were futures on physicals. Chicago Mercantile Exchange, the largest Exchange in the world has only 2% of its volume in physical commodities.

Table 3: Futures Trading Volume by Country of Trading Facility 2002

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Number of Exchanges Reported</th>
<th>Total</th>
<th>Futures on physicals</th>
<th>% Physicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>US</td>
<td>10</td>
<td>851,310,387</td>
<td>187,249,728</td>
<td>22%</td>
</tr>
<tr>
<td>2.</td>
<td>Germany</td>
<td>1</td>
<td>528,718,902</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>3.</td>
<td>UK</td>
<td>3</td>
<td>270,564,087</td>
<td>91,379,359</td>
<td>34%</td>
</tr>
<tr>
<td>4.</td>
<td>Japan</td>
<td>10</td>
<td>167,706,309</td>
<td>138,470,746</td>
<td>83%</td>
</tr>
<tr>
<td>5.</td>
<td>Brazil</td>
<td>1</td>
<td>95,912,579</td>
<td>799,698</td>
<td>1%</td>
</tr>
<tr>
<td>6.</td>
<td>Korea</td>
<td>2</td>
<td>57,915,025</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>7.</td>
<td>Australia</td>
<td>1</td>
<td>33,987,967</td>
<td>20,208</td>
<td>0%</td>
</tr>
<tr>
<td>8.</td>
<td>Singapore</td>
<td>1</td>
<td>32,623,190</td>
<td>1,282</td>
<td>0%</td>
</tr>
<tr>
<td>9.</td>
<td>France</td>
<td>1</td>
<td>26,991,450</td>
<td>373,489</td>
<td>1%</td>
</tr>
<tr>
<td>10.</td>
<td>Sweden</td>
<td>1</td>
<td>20,208,149</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>11.</td>
<td>China</td>
<td>2</td>
<td>18,401,120</td>
<td>12,173,083</td>
<td>66%</td>
</tr>
<tr>
<td>12.</td>
<td>Spain</td>
<td>2</td>
<td>17,314,065</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>13.</td>
<td>South Africa</td>
<td>1</td>
<td>11,233,003</td>
<td>1,356,523</td>
<td>12%</td>
</tr>
<tr>
<td>14.</td>
<td>Canada</td>
<td>2</td>
<td>10,214,294</td>
<td>2,156,620</td>
<td>21%</td>
</tr>
<tr>
<td>15.</td>
<td>India</td>
<td>1</td>
<td>10,199,111</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>16.</td>
<td>Switzerland</td>
<td>1</td>
<td>7,295,018</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>17.</td>
<td>Italy</td>
<td>1</td>
<td>7,071,028</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>18.</td>
<td>Taiwan</td>
<td>1</td>
<td>6,377,808</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>19.</td>
<td>Netherlands</td>
<td>1</td>
<td>4,328,952</td>
<td>44,244</td>
<td>1%</td>
</tr>
<tr>
<td>20.</td>
<td>Portugal</td>
<td>1</td>
<td>3,275,017</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>21.</td>
<td>Belgium</td>
<td>1</td>
<td>2,653,399</td>
<td>--</td>
<td>1%</td>
</tr>
<tr>
<td>22.</td>
<td>Hungary</td>
<td>2</td>
<td>2,411,412</td>
<td>20,633</td>
<td>1%</td>
</tr>
<tr>
<td>23.</td>
<td>Finland</td>
<td>1</td>
<td>2,157,629</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>24.</td>
<td>Malaysia</td>
<td>1</td>
<td>1,276,787</td>
<td>911,015</td>
<td>71%</td>
</tr>
<tr>
<td>25.</td>
<td>Norway</td>
<td>1</td>
<td>881,278</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>26.</td>
<td>New Zealand</td>
<td>1</td>
<td>614,831</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>27.</td>
<td>Denmark</td>
<td>1</td>
<td>434,163</td>
<td>44,244</td>
<td>10%</td>
</tr>
<tr>
<td>28.</td>
<td>Argentina</td>
<td>1</td>
<td>399,432</td>
<td>14,293</td>
<td>4%</td>
</tr>
<tr>
<td>29.</td>
<td>Austria</td>
<td>1</td>
<td>167,939</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td>30.</td>
<td>Israel</td>
<td>1</td>
<td>32,281</td>
<td>--</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>2,192,676,611</td>
<td>435,015,165</td>
<td>20%</td>
</tr>
</tbody>
</table>
2.9.1 The figures depicting growth in US market is quite revealing, the similar trend is observed in other countries. Therefore, in the context of the international experience, the restrictions separating the two markets in India would appear as unnatural barrier on the growth of the market. It also appears that there is a potential for gains to the economy by pursuing convergence, i.e., if the present legal and institutional walls that separate the commodity futures market from the securities markets are removed. It is also felt that enforcing convergence abruptly may sharply increase avoidable collateral damage. If brokerage firms or exchanges find strength in highly specialized, narrow knowledge, then they should be free to follow a narrow course. The way should be opened for gains from convergence without specifically mandating convergence. What is required is proper timeframe, sequencing and prioritization so that the process is not disruptive which may trigger backlash and also dissipate the perceived benefits of convergence.

III. LEGAL, REGULATORY AND OTHER IMPEDIMENTS TO CONVERGENCE

Convergence of securities and commodity markets will need to overcome many legal and regulatory hurdles. Of course, they will depend on the level of convergence being attempted. If the convergence is only at the level of the participants, say, brokers, then the hurdles are minimal. Restrictions on participation of stock-brokers in the commodity derivatives markets can be removed by simply amending Rule 8 (1)(f) of SC(R) Rules. Restriction on the participation of Mutual Funds, Foreign Institutional Investors can similarly be removed by changing the relevant regulations of the SEBI. The restrictions on participation of banking institutions can be removed by amending section 6 of the Banking Regulation Act.

3.2 If a more comprehensive convergence is to be attained encompassing all segments of these markets the hurdles to converge will be many. Some of them are given below:

3.3 At present there are two separate Acts viz. FC(R) Act 1952 and SC(R) Act, 1956 and Rules made there under which govern the two markets. Even though there are many similarities in the text of these Acts they will need to be harmonized so that, as far as possible, common regulatory environment can be provided for the exchanges and participants.

3.4 Whereas the FC(R) Act provides for the appointment of FMC to
recommend to the Government on various issues relating to forward trading and markets, the SC(R) Act does not provide for such a body. The securities market has SEBI as a regulator SEBI, created under as Securities Exchange Board of India Act 1992. The FMC constituted under the FC(R) Act is primarily a recommendatory body, which draws most of its delegated powers from the Government. On the other hand, SEBI is largely autonomous. This difference would pose difficulties in attempting any of the approaches to convergence.

3.5 “Stock Exchanges and futures market” is a subject under the Union list in schedule VII of the Constitution of India thereby bringing both spot and derivative trades in securities under the jurisdiction of the Central Government, which make it easy to develop and regulate securities markets. As against this, the “trade and commerce”, and, “agriculture” are subjects in state list of the Schedule, which implies that spot/cash trade in commodities is within the jurisdiction of the states whereas the futures trade rests with union government. The regulator of commodity exchanges does not have jurisdiction over spot markets even in non-agricultural commodities, like, bullion and other metals. Futures prices of commodities draw heavily on spot prices; therefore it is argued that the regulator of commodity markets in India should have a mandate to regulate the spot markets in commodities. This makes harmonization of spot and futures markets difficult as State taxes and physical restrictions on spot trade fragment the commodities markets. Therefore, unless these issues are resolved the full benefits of convergence cannot be realised.

3.6 There are other supplementary legislations such as Depository Act etc., which make the functioning of securities markets smooth. In case of commodity futures markets such supplemental institutions (like negotiable Warehouse Receipts) do not exist which makes the delivery mechanism complex and problematic, which is so essential to derive full benefits of futures trading for the promotion of agriculture and commodity sector.

3.7 All participants in securities market, viz. brokers, merchant bankers, registrars to issues, depository participants etc. have to seek registration from the SEBI. This ensures comprehensive control of the Regulator on the securities market. At present there is no such requirement under FC(R) Act, though as amendment to this effect is proposed. Thus regulatory bars in two markets are different.

3.8 The cash market of securities is highly organized and effectively regulated by other agencies like DCA, RBI etc., spot market for agricultural commodities is not so organized, though there are plethora of laws to curb
free market in agricultural sector like APMC Act, ECA, Black Marketing Act.

3.9 The FC(R) Act, at present covers forward trading in “goods” only. The scope of commodity futures market will need to be broad-based to include the intangibles related to commodity sector, such as, commodity indices, spreads and basis contracts, weather, electricity, freight, etc. The provision for purely cash-settled contracts also need to be introduced as delivery in such contracts is not possible.

3.10 There is stark contrast between capital markets and commodity markets. In the commodity market, statutes today keep out a huge section of the financial players, like, banks, insurance companies, mutual funds, pension funds etc. There is therefore an urgent need to change the regulations relating to mutual fund, insurance and pension funds. Hedge funds should also be allowed in the commodity futures market with the same tax benefits that the mutual fund industry has in the securities market. Also banks are quintessential financial intermediaries and derivatives can play an important part in the risk-management strategies employed by banks and financial institutions and their customers. The Banking Regulation Act however prohibits banks from dealing in goods. RBI has interpreted this to imply that banks are prohibited from dealing in derivatives on goods. This prevents banks from fully engaging in the agricultural economy. For example, a bank could give a loan to a farmer, and hedge itself against price fluctuations, so as to deliver a loan with a variable rate of interest - whereby lower interest rates are charged in the event that output prices are higher. However, such sophisticated product development is prohibited by the existing regulatory regime. In the spirit of convergence, we need to find solutions through which the banking system can embrace commodity derivatives exactly as is the case with derivatives on currency, equity or debt. Also, market making is necessary to ensure initial liquidity. Banks and financial institutions are historically considered stable institutions to provide market-making services, all over the world. In India, when NSE launched these in 2000, for nearly two years, ICICI Ltd acted as the market maker and provided up to 60% of the volumes on both sell and buy sides; once the market took off in 2002, ICICI Ltd, scaled down its support. A similar role was played in corporate debt paper market. Market makers add to depth, liquidity and stability of markets. Of course, there is a need to develop supervisory guidance to ensure that these activities are conducted safely and soundly. The RBI could assemble a talented staff with outstanding expertise, who understand this business and take a risk-focused approach to applying that guidance to the banks they supervise. Banks could be required to demonstrate that they have established appropriate risk measurement and management processes – including board supervision, managerial and staff expertise, comprehensive policies and
operating procedures, risk identification and measurement, and management information systems as well as an effective risk control function. Currently Banking Regulation Act does not permit banks to participate in the commodity markets. There are certain other issues, which also need to be sorted out for smooth convergence of markets. Some of these issues are:

**Warehouse receipts as securities**

3.11.1 One important mode of settlement of commodity derivatives contracts, internationally, is using warehouse receipts. The economic principle that is used is to treat the warehouse receipt as negotiable and fungible.

3.11.2 In this case, important gains would be obtained by modifying the legal structure so that warehouse receipts become negotiable. It should be possible to dematerialise warehouse receipts at NSDL and CDSL. But it will have to be preceded by appropriate upgradation of the systems and creation of a regulatory apparatus to facilitate development and adoption of uniform standards, creation of facilities for scientific grading, packing, storage, preservation and certification at the warehouses.

3.11.3 This is a highly appealing course of action, in that once there is a security which represents 10 grams of 99.99% gold at the depository, the existing market design of the securities markets can be used, off the shelf, to create a T+2 spot market and a physically settled derivatives market for gold. From the viewpoint of traders, intermediaries, institutional investors, banks, etc. across the country, the existing business process, which is used for securities, would work *without a change*. For example, banks that have IT systems and staff, which give out loans against shares as collateral, would be able to effortlessly reuse these skills and processes to give loans against gold securities as collateral.

3.11.4 While this is an extremely appealing design owing to this simplicity, there are important practical problems faced also. The key question is that of guaranteeing the grade. If there are 10 banks in the system, who are accepting physical gold and issuing gold securities, and if a security (once issued) loses its history and becomes fungible, then how would disputes be handled, if (at a future date) a person uses the warehouse receipt to obtain physical goods, and finds that the purity of the gold is inadequate?

3.11.5 In India today, there are important gaps in the warehousing industry. A sophisticated warehousing industry has yet to come about.
present public sector dominates warehouse sector and Central Warehousing Corporation and State Warehousing Corporations account for approximately more than 3/4th of total warehousing capacity in the country. This infrastructure, including expertise in grading, standardization, and quality assurance etc. can be fruitfully utilized by galvanizing it to meet the requirement of sophisticated market instruments, such as negotiable Warehouse Receipt System. This report seeks to address the limited question of evaluating the benefits and modalities of convergence between commodity futures markets and the securities markets. Hence, this report is restricted to the legal impediments to a sound warehousing industry.

3.11.6 The committee recommends that the legal and regulatory framework should be created, through which negotiability and tradability of warehouse receipts is made possible.

Cash settlement

3.12.1 Cash settlement is an important and powerful method for organising derivatives markets. If someone has purchased dollars at a future date at a price of Rs.50, and when that future date actually arrives, the spot price of the dollar is Rs.45, then cash settlement would involve mere payment of Rs.5 to the clearing corporation. No dollars actually change hands. Cash settled commodity derivatives are exactly like derivatives on financial underlyings. Hence, the use of cash settlement assists the process of convergence. The tradeoffs between physical settlement and cash settlement may be summarised as follows:

3.12.2 Cash settlement is preferable since the costs of settlement are eliminated. If physical settlement had to be done, the costs involved in dealing with physical goods (or warehouse receipts) are always higher than the costs of moving money.

3.12.3 Cash settlement is preferable since the risk of a short squeeze is substantially eliminated.

3.12.4 It is important to emphasise that while cash settlement substantially eliminates the vulnerability to a short squeeze, there are other important methods of manipulation, which remain open even under cash settlement. Suppose it costs Rs.X to manipulate the Nifty spot market to obtain an artificial movement of 1 point. Under cash settlement, the manipulator has an incentive to first adopt a long position on the Nifty futures market, which is so large, that after Rs.X is wasted on manipulating the spot market, the profit on the futures position is much larger than X.
3.12.5 There are no problems with the convergence of futures prices to spot prices under cash settlement. By definition, with cash settlement, the price of the futures on the last day is *defined* to be the official closing price of the spot market. This forces convergence, and generates arbitrage activities on all preceding days, which bring about market efficiency.

3.12.6 The central question about cash settlement is that of obtaining a well-respected and trusted settlement prices. If there is an underlying with a highly fractured spot market, where good data is not available, then it is difficult to construct a well-respected settlement price. In this case, economic agents would not trust a cash settled contract, and would prefer a physically settled contract.

3.12.7 This problem was faced in India in the fixed income market. The fixed income market is almost entirely an OTC market, featuring a lack of transparency, an absence of intra-day data, etc. NSE created a `reference rate' on the inter-bank call money market, called MIBOR. MIBOR is based on a sophisticated methodology where dealers are polled, a simulation procedure is used to select the optimal level of trimming for an `adaptive trimmed mean', and the resulting trimmed mean is reported to the market. MIBOR has been well accepted by market participants, and is likely to be the underlying for cash settled futures, options and swaps in the future. Such procedures can be utilised to obtain well-trusted reference prices, even from a spot market, which has a poor market design.

3.12.8 Cash settlement is appropriate for agricultural commodities, when a farmer or any other user of the futures market is located at a physical distance from the delivery point for the futures market. A farmer may be located 100 km. or 1000 km. from a delivery point, which induces substantial costs of making delivery using physical settlement. Using cash settlement, these issues are eliminated.

3.12.9 In summary, cash settlement has important strengths, except in situations where it is infeasible to produce a well-trusted settlement price. On the securities markets in India today, cash settlement is used intensively. Indeed, as of today, derivatives on equities and interest rates *exclusively* use cash settlement. This is motivated primarily by concerns about short squeezes in the event that physical settlement is used. On the commodity futures in India today, cash settlement is the *de facto* practice, even though it is not permitted *de jure*. The outcome that is envisaged is one where exchanges should be able to apply to the regulator for permission to introduce cash settled contracts. Cash settled contracts would only come
about if both the exchange and the regulator agree that the settlement price is well trusted. It appears difficult to adopt cash settlement in commodity market, where spot market is fragmented and commodities are not sufficiently standardized. In such cases the threat of physical delivery is the best alternative to achieve convergence of spot and future prices, and thereby link futures market to physical market. However in respect of derivatives of intangibles cash-settlement is the only way to settle the contract. Therefore provision for cash settled contract will need to be introduced in the FC(R) Act so as to widen the scope to intangibles, such as commodity indices, weather, freight derivatives etc. In any case, most of futures contracts are squared off before maturity and a very small fraction of contracts result in settlement by delivery.

IV. DIFFERENT APPROACHES TO CONVERGENCE AND THEIR SEQUENCING AND PRIORITISATION

It would be necessary to explore if there are different approaches to convergence so that it can be ensured that while the process of development is accelerated further, the changes are not abrupt resulting in avoidable disruption. The path of convergence has to address the apprehensions, concerns of the existing stakeholders and Exchanges. Also, the gains from convergence have to outweigh the potential loss. It also has to be equitable to both commodity exchanges and stock exchanges and participants in the two markets. It has also to be fair to the Exchanges, which have been granted in-principle approval only recently. It has however to be realized that convergence may not necessarily be a win-win game for both the existing stock and commodity exchanges and the new exchanges and it cannot be guaranteed that the existing commodity exchanges and the participants in the commodity futures market will not be wiped out of the market. It would however be more prudent and pragmatic to chart a path, which causes minimum loss.

DIFFERENT APPROACHES

4.2.1 Different approaches to convergence can be thought of on the basis of extent or level of convergence. Some of the easily identifiable approaches are enumerated below:

I. Convergence at the level of brokerage firms

4.2.2 Securities Contracts (Regulation) Rules impose restriction on participation of stock-brokers in the commodity derivative market. There was
thus a persistent demand from commodity exchanges to remove this restriction. Accordingly, the Forward Markets Commission approached SEBI and the Government of India to remove this restriction. The Terms of the References of the Committee set up by the SEBI to consider this issue included the broader issue of utilizing the infrastructure of the stock exchanges for commodity derivative trading. According to a view, this was the starting point of the debate about convergence of the two markets. There could be two options within the approach of convergence at the level of brokerage firms.

Option A: Brokers to trade commodity derivatives as a separate legal entity

4.2.2.1 The first option would be to require the stock brokers to have distinct entities, one, for trading in securities and the other in commodities, each meeting the admission criteria independently. This option does not require any change in the existing legal or regulatory framework. Also, it is without any disruptive impact. Under this option, if a commodities brokerage firm seeks a membership for trading financial derivatives, it would be required to create a distinct legal entity (e.g. a 100% subsidiary). Conversely, if a financial derivatives brokerage firm seeks to engage in commodity derivatives trading, it would be required to create a distinct legal entity.

4.2.2.2 Separation of legal entities between different exchanges is useful when net worth plays an important role in risk management. If the brokerage firm goes bankrupt owing to mistakes in trading financial derivatives, this should not generate negative externalities for a commodity derivatives exchange, which believed that the firm contained a certain net worth. Gains from this option are however sub-optimal, as this does not allow brokers flexibility to move their networth from one market to another to take advantage of different cycles in the two markets. Also, whenever the risk management of the Exchanges is based on the upfront margins rather than the net worth of brokers, the requirement of separate legal entity creates artificial Chinese wall between the two markets, in securities trading for trading in commodities, and vice versa.

Option B: Multiple Membership with different Regulators

4.2.3.1 Under this option, brokerage firms can be permitted multiple memberships, i.e., brokerage firms can be permitted to engage in multiple activities under one roof. The commodity derivatives brokerage activity of the firm could be subject to regulation, inspections and penalties by FMC; the financial derivatives brokerage activity could be subject to regulation, inspections and penalties from SEBI.
4.2.3.2 There are examples of such 'functional regulation' in India today. For example, banks are regulated by RBI for the purpose of banking, but their depository participant activities are regulated by SEBI. Internationally, the brokers are permitted to have multiple membership.

4.2.3.3 In terms of risk management, it would be essential that each exchange that the brokerage firm deals with should have an online, upfront margining system. In this case, the net worth of the firm becomes unimportant. Each exchange would have possession of liquid collateral, and bankruptcy of the brokerage firm would not induce negative externalities.

4.2.3.4 Certain brokerage firms could legitimately choose to specialise. For example, a certain firm may choose to trade only cotton. That is the legitimate choice of the firm. Different brokerage firms could choose different kinds of specialisations. But in this policy alternative, there would be no legal or regulatory prohibitions upon conducting commodity derivatives and financial derivatives activities within the same intermediary firm.

4.2.3.5 In order to implement this option, the risk management systems in both commodity and securities markets will have to be based on real-time upfront margins. Though reliance on net worth criteria would have to be reduced, as a measure of abundant precaution, net worth criteria of the clearing members too will have to be enhanced and the leverage that such a member has vis-à-vis his net worth may have to be reduced. Also, Rule 8(1)(f) of the Securities Contracts (Regulation) Rules will have to be amended suitably. The most safe and perhaps the most efficient way of implementing this option is to mandate clearing and settlement of trades in both the markets through one independent, professionally managed and well-capitalised clearing corporation with broad-based ownership. This measure would substantially take away the discretion presently available with the office-bearers of the Exchanges; it is, therefore, less likely to be accepted by most of the existing Exchanges.

II. Convergence At The Level Of Policy Making

4.2.4 The general need for a convergence at the level of policy-making arises on account of the fact that the mandate of Department of Consumer Affairs is to protect and promote interests of consumers. The consumers would be better off if the prices of commodities are low. But lower prices adversely affect producers, and consequently production. Properly regulated commodity derivative markets only help to discover prices, which are primarily influenced by basic demand and supply factors. Such commodity
derivatives markets in fact help to reduce intra-seasonal and also inter-seasonal price fluctuations. Commodity futures markets provide price-discovery and price-risk management benefits not only to producers and consumers but also to all the participants in the supply chain. Thus it would be more desirable if the subject of commodity futures trading vests with the Ministry with broader mandate. This approach also entails alternative options of convergence with or without convergence at the level of brokerages.

**Option A: Closer coordination**

4.2.4.2 Under this Option, Department of Consumer Affairs and Department of Economic Affairs would set up a committee through which there could be closer coordination on policy issues connected with Exchanges, product launches, membership, international participation, etc. The effective way to achieve such coordination is to include the Department of Consumer Affairs in the High Level Coordination Committee. This option is useful when compared with the existing state, where there is an absence of coordination between the efforts at DEA on financial derivatives and the efforts at DCA on commodity derivatives. At the same time, while this option will achieve consultation and discussion, the possibility of inconsistent policies being adopted by the two departments remains, particularly in view of the specific mandate of the Department of Consumer Affairs for consumer protection only.

**Option B: Merge functions into a single department**

4.2.4.3 Under this option functions related to the development and regulation of commodity futures markets should be vested in one Ministry. This will require change in the rules relating to Allocation of Business. This option offers the promise of stronger coordination of work on derivatives on commodities as opposed to financials. If the choice of vesting this function between one of the two ministries, (viz., DCA v/s DEA) is to be made, the MOF seems to have an advantage. DEA has already dealt with the policies in the securities market, which are relatively mature. The commodities markets will gain from the experience acquired by the DEA over the years in devising policies for securities markets. However the experience of devising policies for the securities markets may not be totally replicable for development of commodities derivatives markets and may require some understanding of distinctive features of these markets.

**III. Convergence at the level of Regulators**

**Option A: Closer coordination**
4.2.5 Under this option, the regulators, FMC and SEBI, would embark upon a program of closer coordination of their activities. This would consist of:

a) A coordination committee, which would meet regularly and examine issues of harmonisation of regulatory requirements, and

b) A program for staff exchange, so that both agencies can acquire stronger knowledge and human networking on the other side of the fence. This would particularly be beneficial to the Commodity Regulator, as the Security Regulator has developed sufficient expertise, skills and systems to steer the market. The part-time members of the FMC can be drawn from SEBI and also RBI to ensure better coordination. Staff also can be shared on secondment basis. Similarly, the Forward Markets Commission should be given representation on the SEBI.

4.2.5.2 This option is clearly a step forward when compared with the existing regime, where there is no institutional mechanism through which the regulatory work on commodity derivatives interacts with the regulatory work on financial derivatives.

Option B: United States model

4.2.6 In the US, a compromise was worked out when faced with these debates on convergence, whereby the SEC regulates the spot market for securities but the CFTC regulates all derivatives markets (including the commodity derivatives markets). Under this approach, there would be one agency, which regulates the equity spot market, and another agency, which regulates the equity derivatives market. Similarly, the spot market regulator would regulate the bond market, but the derivatives market regulator would regulate interest rate futures. There have been some practical difficulties in implementing the Shad-Johnson accord. In 2000, the SEC and the CFTC agreed on a program of joint jurisdiction for single stock futures and narrow stock indices.

Option C: Merger into a single Regulator with existing Legal Framework

4.2.7 Under this option, regulation of financials and commodity derivatives would be merged into one entity. This single entity would be charged with administering both the SC(R)A and the FC(R)A. It appears that there are strong commonalities between the two Acts (including a significant amount of common text). This should make it feasible to engage in such a
merger, even though the two acts remain distinct. The existing two organizations viz. SEBI and FMC will need to be merged. Even though the merged entity will have to create two separate Divisions to regulate securities and commodity markets, training and inter-mixing of the staff for the purpose of fusion into a single entity will be required. This can be attained by taking an administrative decision by Cabinet, by changes, Allocation of Business Rules.

**Option D: Merger into a single regulator with a single Act**

4.2.8 Under this option, regulation of financials and commodity derivatives would be merged into one entity. In addition, SC(R)A and FC(R)A would be subsumed into a single Act.

**IV. Convergence at the level of exchanges**

**Option A: Distinct segments**

4.2.9 The first alternative in achieving convergence at the level of exchanges could be to require distinct segments for trading commodity derivatives as opposed to financial derivatives. There is a history of such segments being used in the past. On NSE, there is a segment named "Wholesale Debt Market" (WDM), where there is a significant involvement of RBI in formulating the rules and procedures. This is distinct from the "Capital Market" (CM) segment, which is the spot market for equity, corporate debt, and government bonds, where SEBI is the regulator. The two segments have a distinct membership, distinct market design, and distinct regulatory framework.

4.2.9.2 Each commodity futures exchange will also have a separate segment to start a financial derivatives. Each securities exchange would be permitted to start a commodity derivatives segment. All commodity derivatives trading would be regulated by FMC. All financial derivatives trading would be regulated by SEBI. However, to the extent that exchanges have economies of scope and scale, these would be partially harnessed.

**Option B: Full convergence**

4.2.10 Option B would be like the international convention, where derivatives exchanges have no restrictions on the range of products that they can offer, where financials and commodities trade under a single roof. This differs from Option A in not requiring a distinct segment with a distinct membership and a distinct market design. This option has potential to
achieve maximum synergy. However, this option will have a detrimental effect on the existing commodity exchanges.

B. SEQUENCING AND PRIORITISATION

4.3 The different approaches listed in the previous paras can also be taken as different stages (in an ascending order of degree) of convergence. The pace and sequence of convergence of markets should ideally be left to the market forces. International experience shows that markets are converging not only across products but also across geographies. The cost considerations, competition and economies of scale made possible by new technology are forcing markets to converge. It is only the markets with strong niche or regulatory protection that are able to retain a separate entity. Once regulatory barriers are withdrawn the competition will take away the business to more efficient exchanges forcing merger and or the demise of less efficient exchanges. This is not a distant possibility considering that Indian economy is liberalizing and integrating to international economy. Some of the successful international exchanges may step in and compete for the business. It is, therefore, logical that the domestic competition is allowed to equip the exchanges to develop world-class infrastructure and capability to provide services to the customers and to face the emerging competition. The convergence of markets seems to be natural process for which the artificial regulatory barriers will need to be removed. The question is not of whether but of how to attain convergence reaping its benefits with minimal costs. A step-by-step gradual course helps in charting the path cautiously which enables to make mid-course corrections, should the need arise. The disruptions of big bang changes are also minimized. This approach, however, has the limitation of being slow and also runs the risk of being derailed by the vested interests by changing the whole focus of the process. The current state of formal commodity futures market is such that there are not very strong vested interests to risk such derailment. A long period of dormancy due to prohibition on futures trade in most of the commodities till recently, has left a very weak structure and accordingly does not have strong vested interests. There is another view that given the state of the existing commodity market it is the most appropriate that the convergence is attempted in one go to reap the benefits by jumpstarting the modern technology and practices in the industry when the costs of redundancy and wastage are minimum. In this regard it may be stated that the government has recently granted approval to some promoters to set up modern nationwide exchanges. These exchanges have made considerable investment and will, therefore require handholding and protection against competition from strong and resource rich security exchanges if commodity markets are opened to them. A transition plan will need to be worked out in this regard by
allowing then some time. Some leeway will also need to be allowed in the shape of lower regulatory bars to local small commodity specific exchanges to help spread the awareness as also to provide facilities in respect of commodities and with region which are not covered by the bigger exchanges. In the alternative the regulator should be given powers to direct the exchanges to extend the network to or to introduce futures trading in commodities or products, which in its opinion is in the wider public interest.

4.3.2 In these alternative options the role of the regulator to develop the market is crucial. The regulator must possess capabilities in terms of expertise, resources, empowerment and operational flexibility to meet the challenges. The structure of the Forward Markets Commission set up in 1953 as a recommendatory body is not fully suited to the challenges of the emerging market. The structure of this Commission will need to be totally overhauled to provide it the autonomy and the resources as done in case of many regulators set up in recent times.

C. RECOMMENDATIONS

4.4 After examining the various alternatives approaches of convergence and their sequencing and prioritisation mentioned above, the Task Force recommends as follows:

I. Convergence at the level of Brokerage firms.

4.4.1 In view of the considered recommendations of Ramamoorthy Committee set up by SEBI, the Task Force agrees with option A, viz., the Securities Brokers should be permitted to trade in commodity derivative markets by setting up separate legal entity and by complying with separate net worth requirements etc. This is considered necessary in order to ensure that the risk in one market does not spill over to the other market when the two markets are regulated by two different entities.

II. Convergence at the level of Policy Makers.

4.4.2 Option A, viz., inducting Secretary, Consumer Affairs in the High Level Coordination Committee on Capital Markets was accepted by the task force. This is important not only for the sake of convergence of markets but also to represent the consumer's interest (i.e. investors) in the highest coordinating body.

III. Convergence at the level of Regulators
4.4.3 The task force considered the following two options:

a) FMC to be a part of SEBI retaining the present organizational set up and a representative of Dept. of Consumer Affairs to be on the Board of SEBI.

b) FMC to be strengthened and restructured and representatives of FMC to be on the Board of SEBI and vice-versa. A final view on either of these two options will be taken after receiving comments from people at large on the draft Report of the task force which would be put on the website.

IV. Convergence at the level of Exchanges.

4.4.4 Task Force is of the view that status quo should be maintained at this stage.

(Nagendra Parakh)  (Kewal Ram)  (Paul Joseph)
Member  Member  Member

(Kalyan Raipuria)  (Ashok Lahiri)
Member  Member

(Wajahat Habibullah)
CHAIRMAN

ANNEXURE -1

NO. 21/44//IT/2000
GOVERNMENT OF INDIA
MINISTRY OF CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION
DEPARTMENT OF CONSUMER AFFAIRS

Shastri Bhavan, New Delhi
14th May 2003
OFFICE MEMORANDUM

Major changes have been taking place in the Indian securities and commodity derivatives market in the last few years. Introduction of derivatives trading in the security market has meant that many of the assets of its infrastructure and skills can be used by the commodity derivatives market and they can work together. The idea of convergence of the markets, institutions, players and regulation has been proposed by the Finance Minister in a recent communication to the Minister for Consumer Affairs, Food and Public Distribution.

2. While examining the matter, it was, however, felt that the issue of existing divergences need to be analysed in detail in order to chart a path of convergence, if found possible. It has, therefore, been decided by this Department to constitute a Task Force, with the following composition:

i. Secretary, Department of Consumer Affairs  Chairman
ii. Chief Economic Adviser, Dept. of Economic Affairs  Member
iii. Sr. representative of Dept. of Consumer Affairs  Member
iv. Senior representative of Dept. of Company Affairs  Member
v. Senior representative of SEBI  Member
vi. Member, Forward Markets Commission  Member Secy

3. It is proposed to chalk out the terms of reference of the Task Force in its first deliberation, date and time of which will be communicated separately. Comments and suggestions, if any, may please be sent to facilitate discussion on the TOR of the Task Force.

(C K G Nair)
Director
Tele No. 23384390

Shri A K Bhatt,
Chairman,
Forward Markets Commission,
Everest,
100, Marine Drive,
Mumbai, with a request to nominate a Member of the FMC as Member Secretary of the Task Force.