

## **Valedictory Address at the Fourth Annual Conference on "Bonds & Derivatives - The Road Ahead"\***

Ladies & Gentlemen,

At the outset, let me express my gratitude to FIMMDA and PDAI for giving me an opportunity to give valedictory address to this prestigious annual conference. The role of FIMMDA/PDAI has become increasingly important in the development of the fixed income market in India. FIMMDA has played a pivotal role in the documentation of repos, CPs & CDs, finalizing the daily / annual valuation methodology for fixed income securities / derivatives. RBI has also consistently sought FIMMDA's views for repo Accounting, finalizing the scheme of trading of government securities on the Stock Exchanges and on a host of other issues. I particularly commend FIMMDA for the release of the "Handbook of Market practices ", which I think, will go a long way in standardizing market practices for the fixed income securities/ money market instruments / fixed income derivatives. Similarly, PDAI has also played a stellar role in deliberations for framing the regulatory guidelines on a host of issues.

The importance that RBI attaches to FIMMDA/ PDAI as Self Regulatory Organisation (SRO) is also evident from the fact that Governor, Dr. Bimal Jalan, has inaugurated the FIMMDA Conference, for the first time. In this context, let me briefly mention the theoretical underpinnings of the role of an SRO. One can discern five broad elements of effective self regulation. Firstly, Self-regulatory bodies have the expertise and direct market contact needed to stay abreast of rapid changes in a complex industry. An SRO typically adopts, updates and enforces its own procedural rules and rules of conduct, using large network of market professionals, which contributes towards effective regulation. Indeed, SROs may offer considerable depth and expertise regarding market operations and practices, and may be able to respond more quickly and flexibly to the changing market conditions. Second, the self-policing method of SROs increases motivation of market participants, who contribute to the development of industry best practices and standards. SROs help to develop a strong compliance culture in the institutions within their ambit. Third, inclusion of industry professionals on an SRO's governing body and public participation in deliberations pertaining to regulatory policy and rulemaking, provide the foundation for an open transparent regulatory framework. Fourth, historical experience shows that self-regulation allows for greater flexibility and diversity in methods of compliance with rules and regulations than may be possible for a statutory regulator to provide. Self-regulatory bodies have the ability to quickly modify their rules in response to changes taking place in the industry. Fifthly, SROs ensure better information sharing among participants, which is of immense value, as it contributes to coordination of market oversight and reduces systemic risks. It is gratifying that FIMMDA & PDAI have been fairly successful in discharging the above roles of an effective SRO.

The presentations on Emerging Bond Markets, Australian Financial Markets, recent developments in the OTC derivatives market and on the Indian Economy and government borrowing must have been very interesting and insightful. I am sure that the panel discussions on government securities market and Corporate papers were also absorbing. The theme for the Conference "Bonds and Derivatives - The Road ahead" is also extremely topical and it speaks of the growing maturity of the Indian Financial system. The Indian bond market is currently at an interesting stage of development. Future progress of the bond markets should be generally on the following lines:

- (i) Role of derivatives in risk mitigation
- (ii) Enlargement of the investor base
- (iii) Introduction of new instruments for better balance sheet management

Let me elaborate a little on all these issues.

**(i) Risk mitigation through derivatives:**

Although Indian market is far from being complete in an academic sense, we have already initiated some steps in that direction. OTC rupee derivatives in the form of Forward rate Agreements / Interest Rate swaps were introduced in India in July, 1999. Since the introduction of FRAs / IRS transactions have recorded substantial increase. In terms of number of contracts and outstanding notional principal amount, IRS contracts have jumped from about 200 contracts amounting to Rs 4000 crore in March, 2000 to 6500 contracts for Rs 150,000 crore in December 2002. Though in a majority of these contracts, the market players have used NSE-MIBOR as the benchmark rate, they have also been using other benchmarks as Mumbai Inter bank Forward Offered Rate (MIFOR), Mumbai Inter bank Offered Currency Swaps (MIOCS), Mumbai Inter bank Overnight Index swaps (MIOIS), primary auction treasury bill rates etc. In order to give a further fillip to the market, you are aware that a Working Group on OTC Rupee derivatives under the Chairmanship of Shri Jaspal Bindra, CEO, Standard Chartered Bank (Indian Region) has submitted its report to the Deputy Governor on 30 January, 2003. As and when derivatives both Over the Counter type as well as Exchange traded ones get enabled, this will open up a range of possibilities for efficient pricing, hedging and managing of interest rate risks. But it also raises a set of new issues like counter party risks, liquidity risks etc., which, although not unfamiliar, but will be important in this altered milieu. I have a feeling that, for optimizing the capital charges, the clearing and settlement of contracts should increasingly be through a centralized counterparty. Such arrangements not only reduce counter party risk but also considerably simplify documentation and settlement operations which reduce operational risk and settlement costs.

In June 2000, derivatives have been allowed on stock exchanges also (at NSE and BSE). The available products are : Index futures and options, basket futures and options, stock futures and options. As between, Index/basket derivatives and stock derivatives, stock derivatives are more popular. Further, as between futures and options, futures are more popular. As between stock exchanges, derivatives have large volumes on NSE. The market for stock futures is growing very fast. During 2001-02, 43 lakh contracts for a total amount of Rs.1,03,848 crore were traded on the exchanges. NSE accounted for 98% of the volume, while the remaining 2% by BSE. The volumes have shown fast growth from month to month : Rs.320 crore in April 2001, Rs.840 crore in June 2001, Rs.5,680 crore in September 2001, Rs.13,005 crore in December 2001 and Rs.20,538 crore in March 2002.

**Some uses of derivatives**

You had detailed discussions in the seminar on various aspects of derivatives, that is, types of derivatives, uses, mechanisms, benefits, current state of derivatives in India and abroad, risk management practices, and legal issues. There is a misconception that derivatives are used for speculation. While speculators can use, and do use, derivatives, they can also be used – and are used – by businessmen and investors to *hedge* their risks.

There can be a variety of uses of derivatives. We can discuss a few of them. I am using simple examples for an easy understanding of the subject. Please excuse me for any error because of my limited knowledge of the subject.

Suppose, a manufacturer has received order for supply of his products after six months. Price of the product has been fixed. Production of goods will have to start after four months. He fears that, in case the price of raw material goes up in the meanwhile, he will suffer a loss on the order. To protect himself against the possible risk, he buys the raw material in the '*futures*' market for delivery and payment after four months at an agreed price, say, Rs. 100 per unit. Let us take the case of another person who produces the raw material. He does not have advance orders. He knows that his produce will be ready after four months. He roughly knows the estimated cost of his produce. He does not know what will be the price of his produce after four months. If the price goes down, he will suffer a loss. To protect himself against the possible loss, he makes a 'future' sale of his produce, at an agreed price, say, Rs. 100 per unit. At the end of four months, he delivers the produce and receives payment at the rate of Rs. 100 per unit of contracted quantity. The actual price may be more or less than the contracted price at the end of contracted period. A businessman may not be interested in such speculative gains or losses. His main concern is to make profits from his main business and not through rise and fall of prices. He wants to work with peace of mind and some assurance.

Let us take another example. Suppose a person is going to retire after one year. He wants to invest a part of his retirement dues to be received after one year, in shares. He feels that share prices ruling at present are quite reasonable, and after one year the prices might go up. He enters a '*futures*' contract for one year to buy the shares at an agreed price of, say, Rs. 100 per share. After one year, he will make payment at the contracted rate and will receive the shares. There is another person who holds investments in shares. He desires to sell his investments after one year, for use for his daughter's marriage. He is afraid that if prices of his investments fall after one year, he will suffer a loss. He cannot sell them now as he has pledged them with a bank as security for a loan. He hedges the risk by selling his investments through a '*futures*' contract for one year at a contracted price of, say, Rs. 100 per share.

In the above two examples, at the end of one year, ruling price may be more than Rs. 100 or less than Rs. 100. If the price is higher (say, Rs. 125), the buyer is gainer for he pays Rs. 100 and gets shares worth Rs. 125, and the seller is the loser for he gets Rs. 100 for shares worth Rs. 125 at the time of delivery. On the other hand, in case the price is lower (say, Rs. 75), the purchaser is loser; and the seller is the gainer. There is a method to cut a part of such loss by buying a '*futures*' contract with an '*option*', on payment of a fee. The option gives a right to the buyer/seller to walk out the '*futures*' contract. Naturally, a person will exercise option only if beneficial. In the above example, suppose the option fee is Rs. 10, and the price of shares at the time of exercise is Rs. 75, it will be advantageous for the buyer of shares to exercise the option. Thus, if he directly buys shares in the spot market, his cost will be only Rs. 85 (Rs. 75 + Rs. 10 fee) as against Rs. 100 which he had to pay under the '*futures*' contract. In case the current price at the time of delivery is higher (say, Rs. 125) than the contracted price (Rs. 100) plus option fee, the seller of shares will be similarly benefited in opting out of the futures contract, for he can realize a higher price in the spot market.

We have noticed from the earlier discussion that one's gain is another's loss. That is why derivatives are a '*zero sum game*'. The mechanism helps in distribution of risks among the market players.

The above retiring gentleman also wants to invest a part of his retirement dues in bonds. He is quite comfortable with the present level of yield. He hedges the risk of fall in yield by entering into a '*forward rate agreement*' of one year at an agreed rate. At the time of actual investment after one year, he will get the contracted yield on his investment.

Let us see one of the uses of '*interest rate swap*'. Suppose a financial institution has some floating rate liabilities, but all its assets are on fixed rate basis. In case the floating rate goes up, it will be a loser. The institution can protect its position by *swapping* (exchanging) floating rate on its liabilities with fixed rate. There may be another person holding floating rate assets. He fears that the floating rate may go down in future. He may exchange his floating rate receipts with fixed rate receipts.

I would like to give an example of '*currency swap*'. Suppose a person is holding one million Dollars. He does not need them now. But, he will need them after six months for purchase of machinery. His calculation is that he can earn a better return on his funds by investing in Rupee bonds. What he does is that he sells the Dollars in spot market for Rupees. Simultaneously, he buys Dollars '*forward*' for delivery after six months. At the end of six months, he sells his Rupee bonds and takes delivery of Dollars against payment of Rupees. He makes payment for the machine in Dollars. (The difference between '*forwards*' and '*futures*' is that while the former take place between two counter parties in the OTC market, the latter are transacted on stock exchanges.)

It is also possible to hedge the risk of default on a bond/loan through a '*credit derivative*'.

So far, we have seen examples of derivatives for hedging business/investment risks. Derivatives can also be undertaken for *speculation*. Speculators, as you know, are of two types. One type is of optimistic variety, and sees a rise in prices in future. He is known as 'bull'. The other type is a pessimist, and he sees a fall in prices, in future. He is known as 'bear'. They undertake '*futures*' transactions with the intention of making gains through difference in contracted prices and future prices. If, in future, their expectations turn out to be true, they gain. If not, they lose. Of course, they may limit their losses through options.

## **Bond derivatives**

Bonds carry several risks. They carry interest rate and price risks, currency risk(for a foreign buyer) and credit risk(company risk and country risk). These risks can be separated and hedged through separate derivative instruments.

In view of increasing rates of defaults and credit downgradings, the global market for credit derivatives has been growing very fast, during last few years. The market has grown from \$25 billion in 1996 to \$ 1,500 billion in 2000. However, the credit derivatives market is still in its infancy, when compared with the global market for all derivatives at \$48,000 billion in 2000.

## **Words of caution**

Derivatives market is in an evolving stage in India. We have, therefore, to proceed cautiously to avoid pitfalls. We have to proceed step by step, mastering the intricacies and then proceeding ahead. We have to be humble students of the subject.

### **(ii) Widening the investor base**

It has been known that a wide investor base enables the system to absorb shocks effectively and prevent volatility particularly as the retail investors are largely buy and hold investors. In the Indian context, one of the challenges has been to enable investors in far flung places to participate in the government securities market easily and transparently. Allowing retail participation on a non-competitive basis in the primary auctions was a step in this direction. Now with trading of government securities on the Stock Exchanges becoming a reality, the enabling infrastructure is finally in place for those far removed from the wholesale market at Mumbai. The benefits for the investors will be competitive and transparent prices, minimal settlement risks and ease of entry and exit from the market as retail trading of Government securities through Stock Exchanges develops. The Primary Dealers are expected to play an important role, serving as the critical link between the wholesale and retail segments of the market.

For the regulated entities, settlement will be through clearing member /custodians so that the integrity of the system is not compromised. Also, to begin with, the institutional trades on the stock exchanges will not be marginable and will be settled on the basis of giving and taking deliveries. This practice is identical to what is currently being followed in respect of institutional trades in the equity segment. However, the objective is to move to the internationally accepted practice of margining all trades. This issue is under the consideration of RBI-SEBI Technical committee.

Also, the trading of government securities in the stock exchanges represents a change in the process of price discovery from the existing telephone market. RBI has also taken steps for data dissemination of trades by putting the NDS trades/ quotes on our website on a real time basis.

### **(iii) Introduction of new instruments**

A complete financial market in an academic sense means that every financial claim in the market can be replicated. Although, the attainment of the “completeness” status remains an utopia even in the most advanced of the markets, it has to be acknowledged that every market should offer a reasonable bouquet of products to satisfy the savings and investment needs in a cost effective manner. I would here like to emphasize the role of STRIPS and Floating rate bonds and the crucial role of derivatives can play towards risk mitigation in financial markets.

**STRIPS(Separate trading in registered interest and principal securities):** The working group on STRIPS has given an effective road map for the implementation of STRIPS in the Indian market. It is our belief that introduction of STRIPS will enable the market participants, particularly banks to manage their assets and liabilities in a more effective way than they are currently able to. Also an active STRIPS market means the evolution of a zero curve and hence more efficient pricing of bonds. However, introduction of STRIPS mean that the

market makers in STRIPS should be able to manage the risks arising out of holding of stripped coupons effectively. RBI is aware of this and will take suitable steps as and when necessary.

**Floating rate bonds / bonds with option features** : Recent experience suggests that floating rate bonds represent an effective way of managing balance sheet risks arising out of interest rate movements has not been sufficiently appreciated. Management of such risks is particularly crucial in a period when interest rate outlook is uncertain. I anticipate a lot of experimentation both in terms of choice of indices like treasury bills yields, WPI/ CPI as well as product design. I also expect bonds with optional features (call/put) to pick up as participants develop skills & instruments, particularly in the derivatives market, to lay off the risks associated with such optional features.

Before I conclude, I would like to touch upon certain important recent developments having significant implications for the market:

1. **Repo Accounting:** RBI is in the process of finalizing repo accounting procedure. The accounting procedure will provide a clear demarcation between balance sheet items and P&L items. With the adoption of the standard accounting methodology from the next financial year, it will be possible for the market participants to enter into long term repos and conduct repo from any of the three investment categories. FIMMDA has already finalized the documentation of the Repo with CCIL as the central counterparty; hence the settlement / operational / legal /counterparty risks associated with repo transactions have also been considerably reduced.
2. Once repo accounting and documentation is in place, roll-over of repos and selling of repoed securities can also be considered. CCIL has also launched **CBLO** (Collateralised borrowing and lending obligations) enabling non bank participants with surplus cash to deploy the same in the money markets on a collateralized basis. This measure will impart considerable flexibility to the market participants in managing their liquidity as well as investments.
3. Consistent with the policy of extending the reach of repo markets, RBI has decided to permit repo for government securities held in the gilt accounts with CSG account holders. Necessary notification is being issued shortly.
4. A scheme of securities lending and borrowing is also under examination. This will enable CCIL to perform its function as a guarantor of the securities settlement effectively.

In the final analysis, the insurance of any institution against the uncertain future is the quality of its human resources. It is not the models and systems but the quality of human resources deployed which is of paramount importance and a source of comfort both to the top management as well as to the regulators. But with the tools at your disposal I think the market is adequately geared to rise to the challenge of an uncertain future. I wish you good luck in this endeavour.

I once again thank FIMMDA & PDAI for providing this opportunity to me.

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*Valedictory Address by Shri Mohammad Tahir, Executive Director, Reserve Bank of India, at the Fourth Annual Conference on "Bonds & Derivatives - The Road Ahead" organized jointly by FIMMDA and PDAI at Goa on February 1, 2003*