

## Regulatory Perspectives on Derivatives Markets in India \*

(Keynote address by Dr. Subir Gokarn, Deputy Governor, Reserve Bank of India at the International Options Market Association, World Federation of Exchanges Annual Conference organised by the National Stock Exchange at Mumbai on May 4, 2011)

### Introduction

It is a pleasure for me to be speaking at this conference organized by the International Options Market Association. The presence and role of derivatives in India, both OTC and Exchange traded, has been increasing steadily over the years. These instruments are an important component of the overall financial sector strategy and the broad regulatory objective is to ensure that they are used to their potential in ways that are consistent with both financial development and the contribution of financial markets to economic growth.

I would like to begin by laying out a simple framework, which helps us think about financial sector development in terms of multiple objectives. This will provide a useful backdrop to the various issues relating to derivatives in India, which I will then go on to talk about.

Financial sector development can broadly be viewed as pursuing four objectives.

**Efficiency:** We can look at the notion of efficiency from two perspectives. For the provider of products and services, it means the ability to do this at the lowest possible cost, with the full benefit of technology and market infrastructure. For the user, efficiency relates to the availability of products and services which address his/her requirements at the lowest possible price.

**Stability:** From the viewpoint of the financial system, stability requires that aggregate risk is bounded in some way. This requires, in turn, that individual participants be required to mitigate and manage their own risks. However, in situations in which systemic risk goes beyond the aggregate individual risk, additional measures may be warranted.

**Transparency:** The basic premise is: "what cannot be measured cannot be managed". The more market participants know about overall activities and outcomes, the better able they are to make their cost-benefit calculations and act on them, contributing to the overall effectiveness of the market.

**Inclusion:** Financial development is not an end in itself. It serves the broader purpose of facilitating economic activity, through resource mobilization and risk management. The more accessible the financial system is to individuals in pursuit of these two objectives, the better.

Against this backdrop, I will address four sets of issues:

1. The landscape for OTC derivatives in India
2. Regulatory concerns and steps taken
3. The roadmap for OTC derivatives
4. The development of markets in India

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\* Inputs from Sudarsana Sahoo, Edwin Prabhu, Rajib Das, H.S. Mohanty, Nishita Rajee and G. Mahalingam are gratefully acknowledged.

## **The Landscape for OTC derivatives in India**

The primary OTC derivatives in India: Interest rate derivatives - Interest rate swaps (IRS) and forward rate agreements (FRA); FX derivatives- FX forward, options and swaps.

The IRS and FRA were introduced in July 1999 to help banks and PDs to better manage their interest rate risk in the wake of deregulated interest rate regime. Swaps having explicit/implicit option features such as caps/ floors/ collars are not permitted.

Currently, there are four benchmarks used in Rupee IRS, viz. MIBOR, MIFOR, INBMK, MIOIS. The trading is mainly confined to MIBOR benchmark. The average daily traded volume in the MIBOR swap over the last three years is placed at Rs.8,873 crore, quite comparable with that of the G-Secs at Rs. 10,937 crore. Often the daily traded volume in MIBOR swaps remained above that of the G-Secs.

Of the MIBOR swaps, the swaps on overnight MIBOR, i.e. OIS, is the most actively traded instrument. The OIS trades are mainly confined to 1-year tenor, followed by 2-year and 5-year tenors.

The relatively high volumes suggest that the product is providing a useful way of hedging against interest rate risk. However, it needs to be pointed out that the market is mainly driven by inter-bank transactions. Customer-related transactions comprise only about around 1 per cent of the volume. Also, the participation profile remained skewed. The share of foreign banks is at above 80%, whereas the share of public sector banks is at around 1%. The OIS curve has been below the G-Sec curve for most of the time.

In the OTC FX derivatives, forwards have been the most widely used instrument followed by swaps and options. USD-INR futures had picked up substantial volume since their introduction in August 2008, but the forwards still possess the dominant market share.

It is evident that hedgers generally still prefer OTC forwards to futures, as these provide the benefit of customization, does not involve cash flows related to daily MTM margining and are linked to final remittances of foreign currency funds. Increased trading volume in the futures market is mainly attributed to the speculative interest in the backdrop of non-requirement of underlying exposure, absence of any restriction on cancellation and re-booking and above all the cash settlement which obviates the need for payment of principal amount. Significantly, easy arbitraging between the forward and futures had kept the spread between the futures and forward quite tight.

## **Regulatory concerns and steps**

The recent global financial crisis has brought to light the weaknesses of the OTC derivatives market. Firstly, the complexity and opacity of the OTC market facilitated excessive risk taking by the market participants. Secondly, the lack of information about the counterparties coupled with non-availability of the transaction information with the regulators led to seizure of the market. Thirdly, the bilateral counterparty risks have become complex given the variety of structures and asset classes used by the market participant. Further, with increase in volumes and complexities of the OTC derivatives, the infrastructure for clearing and settlement became a major impediment.

We believe that the OTC derivative markets in India are well regulated. Some of the key regulatory safeguards available in the OTC derivative transactions are:

1. One of the counter parties to the OTC derivative transactions has to be a RBI regulated entity
2. Users are permitted to transact in derivatives essentially to hedge an underlying exposure
3. There are clear prescriptions about the roles and responsibilities of market makers; mostly banks and primary dealers (for interest rate derivatives) are permitted to act as market makers.
4. The market maker has the responsibility for assessing customer suitability and appropriateness and they are required to fulfill the prescribed set of requirements while selling any product to a user.
5. The overall framework within which derivative transactions are to be undertaken has to be guided by the Board approved policy. The risk management framework should lay down the procedures to deal with any violation of risk limits.
6. All derivative products are required to be marked to market if a liquid market in the product exists or otherwise marked to model, provided all the model inputs are observable market variables and full particulars of the model, including the quantitative algorithm are documented.

In the aftermath of the global financial crisis, the principal theme of discourse internationally is to improve the efficiency and reliability of the OTC derivative markets. Two broad steps in this direction are (a) clearing and settlement of OTC derivative transactions through Central Counterparties (CCP) and (b) mandating reporting of OTC derivatives trades to designated trade repositories. Against this backdrop, it must be pointed out that, over the years, the Bank had taken several measures to improve the transparency and efficiency of OTC derivatives market. Some of the major ones are:

1. The Bank had instituted mandatory reporting system for the OTC derivative transactions. The banks have been mandated to report the inter-bank IRS trade data on-line to CCIL since August 2007. The client level trade data are also now collected from the banks. In case of FX derivatives, the AD category-1 banks report the aggregate details of transactions in forward contracts, currency swaps and currency options to the Bank at fixed periodicity. The Bank uses the tradelevel and aggregate level data to monitor the overall market wide exposure as well as the exposure level of the individual market makers along with their exposures to specific derivative instruments.
2. The Bank has facilitated greater use of central clearing counterparty (CCP) based clearing and settlement system for OTC derivative transactions which helps in reducing the risk of financial loss through counterparty default and provides capital relief. Currently, the transactions relating to FX forward are settled on guaranteed basis through CCIL. The process for introduction of guaranteed settlement of IRS transactions is underway.
3. Thirdly, the level of transparency has been improved by way of increased dissemination of price and volume information. The price and volume data improves the risk management efficiency of the market participants and enhances the price-discovery function. Moreover, it offers greater degree of protection to the unsophisticated class of end-users.

## **The roadmap for OTC derivatives in India**

A number of initiatives for the further development of OTC derivatives in India have been initiated. Some of the major ones are:

*New Products:* The product on anvil is the Credit Default Swap (CDS). The draft guidelines on CDS were placed on RBI's website in February 2011 for public comments. CDS on corporate bonds issued by single legal residential entities have been proposed, with the underlying bonds to be listed ones, but with two exceptions: unlisted but rated bonds of infrastructure companies and unlisted/unrated bonds issued by the SPVs set up by infrastructure companies. The final guidelines are expected soon.

*Trade Repository:* CCIL has been acting as the trade repository for IRS transactions since August 2007. There is no such trade repository structure for the FX derivatives at present. There are proposals to introduce repository structure for USD-INR forwards (including swaps) and options.

*Central counterparty clearing:* CCIL has put in place guaranteed settlement for FX forward transaction effective from the date of contract since December 2009. In case of IRS, CCIL has been providing non-guaranteed settlement since November 2008. It is expected to transit to guaranteed settlement for IRS transactions shortly.

*Portfolio Compression* An important innovation in OTC derivative markets introduced during the last few years relates to portfolio compression services. Since the only way to exit a position in an OTC derivative is to enter into another with opposite pay off, the gross notional outstanding multiplies manifold as a result. Huge build-up in gross notional outstanding demands higher capital charges and reduces the available counter-party limits for undertaking other business transactions. Moreover, it does not capture the economic essence of the portfolios. CCIL is the process of developing trade compression services.

Generally speaking, our approach to financial markets development has been calibrated, keeping in mind the overall objectives of financial sector development. Particularly at this juncture, while we intend to expand set of products and instruments available, we also wish to emphasize the improvement in the pre and post-trading infrastructure as well as consolidation of the regulatory regime so that financial stability is not threatened.

## **Development of markets in India**

Exchange traded products provide the benefits of transparent pricing and robust risk management. The Reserve Bank introduced currency futures and interest rate futures on the exchanges with a view to increasing the depth and breadth of the derivatives market, in turn helping to provide an effective risk management framework to users.

Currency futures were launched on the National Stock Exchange (NSE) in August 2008 and subsequently on other exchanges. European style option on USD-INR pairs was launched on NSE and USE in October 2010. The biggest challenge in designing a framework for exchange traded currency derivatives in India was the prevailing regulatory system for the OTC products. In the OTC environment, there is an elaborate framework for regulating transactions, including derivatives, and the presence of an underlying exposure is an essential requirement. It was not possible to carry over this requirement onto the exchange traded market. To deal with this, even if partially, position limits have been imposed on exposures to exchange traded products.

Interest Rate Futures (IRF) contracts on 10-year notional coupon bonds were launched on NSE in August 2009. Persons resident in India and FIIs have been permitted to participate in the market. The product witnessed significant activity during the initial period, but liquidity tapered off subsequently. The muted market response to IRF is generally attributed to the illiquidity nature of the underlying G-sec market and lack of hedging interest in the wake of present HTM regime.

Notwithstanding this experience, RBI has already issued guidelines for futures contracts on 91-day T-Bills, which are expected to be introduced shortly. We are also considering introduction of IRF contracts on 2 year and 5 year G-Secs to provide the products at the shorter end which would offer flexible hedging options to the market participants.

### **Concluding Remarks**

I would like to go back to the four-objective framework with which I began my presentation. The roadmap for the development of derivatives, or for that matter, any new financial product or service, will strive to maintain a balance between these four objectives. From this perspective, the approach should be neutral to the form and nature of the product or service; it should be concerned only with whether it is helping to meet the objectives, or at least not detracting from any of them. I would particularly like to emphasize the objective of inclusion, which, in this context, looks at the desirability of a product in terms of how effectively it might meet the requirements of a very heterogeneous group of producers of various goods and services.

Taking the specific example of OTC forex products, it is apparent that they remain attractive to a majority of people with forex exposures because they can be customized to the specific characteristics of each transaction. However, the parallel development of the futures market suggests that there may be some complementarities between the two. A hub-and-spoke analogy comes to mind, with OTC products serving as the spokes and the counter-parties to these transactions then aggregating their exposures and managing them with exchange traded products. Although this phenomenon is not quite prevalent in India at present, for me, this provides a useful way to think about the overall roadmap, with each component playing a legitimate role.

I would like to thank the organizers for inviting me to deliver the keynote address at this IOMA Conference and trust that it has been a useful input.