

Interest Rate Derivatives in India: Challenges and Opportunities

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Abstract

Risk taking has become the order of the globalised and integrated financial markets. And, Indian financial market is no exception. In recent years, due to high employment, inflation, and increased demand for durable consumer as well as producer goods, the interest rate in India has become more volatile thereby making the debt market relatively risky and uncertain. The risk arising from the unfavourable changes in interest rate has repercussions on financial, corporate and household sectors. This interest rate risk has the evidence of adversely influencing the market value of banks' assets as well as the earnings from assets, fees and the cost of borrowed funds. Necessity is the mother of invention. And, it has come into being with flying colors when the effective risk management process in India has made a path breaking contribution by introducing interest rate derivatives – 10 Year Notional Coupon-bearing G-Sec in 2009, and 91-Day T-bill in 2011 so as to hedge interest rate risk. But the challenge is to maintain the glamour. It is due to certain structural factors like lack of liquidity in the underlying cash market, prescription of Statutory Liquidity Ratio, and the facility of Held to Maturity, the activities in the interest rate derivatives market have not yet been very attractive in India. Lack of significant buy-side interest and market hesitancy to take a view on long-term interest rates are among other factors hindering lucrative market activities. The opportunities lie in widening the investor base, and encourage participation of investors with diverse views on future outcomes.

Keywords: Interest rate risk, Debt derivatives, Interest rate derivatives, India.



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1. Introduction

Risk taking has become the order of the globalised and integrated financial markets. And, Indian financial market is no exception. Since a long time India has opened up its market, and allowed prices to change with prevailing and changing market conditions in a dynamic path thereby making the estimation of costs and revenues very hard on the part of the corporate houses (Gakhar and Meetu, 2013). This generates the spirals of risk and uncertainty in the economy. And, the derivatives provide an efficient and effective ways to deal with the problems of such risks and uncertainties that arise in an emerging market economy like India due to fluctuations in interest rates, exchange rates, stock market prices, crude oil prices, domestic commodity prices, gold prices, and so on so forth. Thus, derivatives market now plays an important role in giving a proper shape and position to the risk management system while addressing different types of risk such as credit risk, operational risk, interest rate risk, liquidity risk, price risk, and foreign exchange risk, etc (Srivastava and Srivastava, 2010). Of this basket of risks, interest rate risk has drawn a considerable attention of the researchers, market participants, and policy maker as well. And, the outcome is the interest rate derivatives came to lime light in early sixties.

An interest rate derivative is a financial derivative instrument in which the underlying asset is the right to pay or receive a notional amount of money at a give interest rate. In the world level, the interest rate derivatives market is considered largest in comparison to other financial markets. According to BIS estimates, the notional amount outstanding as of June 2012 was USD 494 trillion for OTC interest rate contracts, and USD 342 trillion for OTC interest rate swaps. According to an estimate of ISDA, about 80% of the World's top 500 companies as of April 2003

used interest rate derivatives to control their cash flows vis-à-vis 75% for foreign exchange options, 25% for commodity options, and 10% for stock options. In the world market, the attractiveness of the exchange-traded interest rate futures may be due to the factors including low capital requirement, ability to short the asset freely without need to borrow the same, daily settlement and a CCP framework that eliminated counterparty credit risk. In Indian financial market, the interest rate derivatives in the form of Forward Rate Agreements (FRAs) and Interest Rate Swaps (IRS) were first introduced in March 1999 to facilitate banks, PDs and AFIs to manage their interest rate risks arising out of asset-liability mismatches. Similarly, the interest rate futures were introduced in 2003, and reintroduced on 31st Aug 2009. These interest rate futures contract offers market participants a standardized product taking a view of the future directions of the market, hedging and creating income strategies. Now, India plans to launch trading of government bond futures to deepen its financial markets. These interest rate futures are expected to enable the banks and other financial firms in India to assess expectations for borrowing costs, and hedge the risks of rate changes to their bond portfolios.

Thus, the main objective of this paper is to analyze the challenges and opportunities ahead for interest rate derivatives in India. It is with this backdrop, the paper proceeds to focus on the development of interest rate derivatives in India in Section-2, and the underlying challenges and opportunities in Section-3 in this article.

2. Interest Rate Derivatives in India

In recent years, due to high employment, inflation, and increased demand for durable consumer as well as producer goods, the interest rate in India has become more volatile thereby making the debt market relatively risky and uncertain. The risk arising from the unfavourable changes in interest rate has repercussions on financial, corporate and household sectors. This interest rate risk has the evidence of adversely influencing the market value of banks' assets as well as the earnings from assets, fees and the cost of borrowed funds.

The summarized picture of the interest rate volatility in debt and money markets in India is presented in Table-1 in which volatility is measured in terms of standard deviations. It has been observed that the interest rate volatility was a bit hard to be managed during 2000 and 2005 in debt market as well as money market. During 2005 and 2010, similar kind of situation remained prevalent in Indian financial markets. However, the interest rate volatility has been substantially reduced during last three years. This may be attributed to the interest rate derivatives traded in India's derivatives market.

Table-1. Interest Rate Volatility in Debt and Money markets in India
(Standard Deviations)

Period	Call	91-DTB	CP	CD	1yr YLD	5yr YLD	10yr YLD
2000-05	1.91	1.78	2.03	1.94	1.93	1.93	2.09
2005-10	2.26	1.62	2.13	1.77	1.36	0.75	0.65
2010-13	1.44	1.43	1.65	1.31	1.00	0.39	0.31

Source: Reserve Bank of India publications

No doubt, India is having active derivatives markets in currencies and equities. But it has struggled a lot to bring liquidity in debt derivatives thereby neglecting banks and other financial firms' interest in hedging opportunities. In India, Banks, Insurance Companies, Primary Dealers, and Provident Funds own about 90% of GOI bonds. Similarly, the turnover of exchange traded equity based derivatives is about 14 times that of cash markets. All these reflect the potential demand for interest rate derivatives in India. The market for OTC interest rate derivatives in India is predominated by interest rate swaps with almost no activity in forward rate agreements. The total outstanding in terms of notional amounts as of end-March 2012 was Rs.1971859cr for MIBOR-based swaps, Rs.293310cr for MIFOR-based swaps, and Rs.25910cr for INBMK-based swaps. This shows that MIBOR-based swaps are most sought after interest rate derivatives in Indian market which constitutes for about 90% of the total trades. But, the most unfortunate aspect is that about 80% market participants are foreign banks with virtual absence of nationalized banks. This may be a reason why Indian financial market is exposure to global financial crises.

On the other hand, the interest rate futures which were introduced as exchange traded interest rate derivatives in 2003 in the form of 10-year notional G-sec with a coupon of 6%, 10-year notional zero-coupon G-sec and 91-day T-bills, failed to attract the attentions of enough market participants, and soon became non-operational. Again to provide liquidity, VK Sharma committee recommended reintroducing the interest rate futures, and thus futures contract on 10-year notional G-sec with a coupon of 7% was reintroduced in Aug 2009. This was followed with the introduction of cash-settled futures on 91-day T-Bills, 2-year and 5-year notional G-sec with a coupon of 7% in Dec 2011. In spite of this elegancy, there has not been much activity in the futures market since reintroduction. Certain structural factors like lack of liquidity in the underlying cash market, prescription of Statutory Liquidity Ratio, and the facility of Held to Maturity; lack of significant buy-side interest and market hesitancy to take a view on long-term interest rates are among other factors hindering lucrative market activities. Therefore, the challenge is maintaining the continuum of the glamour of the interest rate derivatives market.

3. Challenges and Opportunities

It has been observed that the interest rate derivatives in India have not yet been so successful in achieving the inherent objectives of providing liquidity and managing risks exposure. The challenges are posed by the ill-defined and unclear expectations of market participants. The reason is that such expectations create bids/asks that always mismatch thereby obstruct trading among the participants. Thus, the opportunities lie in widening the investor base, and encourage participation of investors with diverse views on future outcomes. High and satisfactory trading activity in futures market is a function of presence of market participants with well-defined but diverse expectations of future interest rates. The most important problem in Indian interest rate derivatives market is the predominance of homogeneous opinion of the participants that hold back liquidity particularly in the futures market. In this context, it

may be suggested that the participation of FIIs should be permitted in the interest rate futures market. However, it poses a challenge that the FIIs would assume the short term position in the G-sec market through interest rate future for which they are not permitted. Another opportunity lies in improving the liquidity position in the underlying cash market. This may be possible through the introduction of new products, and popularizing them among participants. This calls for leading role of the stock exchanges in India. Availability of the larger number of products always creates more and more opportunities for trading, which in turn result in the better price discovery and efficiency in the system. The role of regulators is also important in bringing about a vibrant interest rate derivative market. They should ensure proper disclosures and the transparency in the operations of the market participants. The participants should be given freedom to explore the value creation opportunities in such a market, of course within the given framework. Last but not the least, necessary steps should be facilitated so as to bring the nationalized banks into forefront. In this respect, standardization and transparency in the product design, market microstructure, and trading and settlement system shall go a long way thereby deepening the interest rate derivatives market in India.

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