<u>Retailing of Government Securities</u>

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In recent past there have been increasing debates on role of exchange driven secondary market retail trading in Gilts for deepening the bond market in India. However, for a long time, the retail participation in Gilts has been advocated by academician, market participants, regulators as well as policy makers. To encourage retail participation, RBI allowed retail investors to take part in Gilts auctions through non-competitive bidding and in the process, 5% of the issue size was earmarked for the same. Though, there was no bar on retail investors to buy and sell Gilts, it was little difficult for the retail investors to actively participate in the market due to institutional structure of the market. The Gilts market in India, like many other countries, has traditionally remained within the realms of institutional players. The policy frameworks were designed in such a way that the retail investors were not enthused to participate in the market. The retail investors found solace in many subsidized interest rate schemes and products that were more attractive in terms of returns on investment. The financial sector reforms process ensured increasing deregulation of interest rate and made most of the products aligned to the market determined rates reducing subsidy to retail investors. Though there are still few products available today that provide relatively higher returns though the products are sovereign in nature. However, the maturity of financial sector reforms process has ensured moving towards a lower interest rate regime that not only has implications for the retail investors but also for wholesale players like banks and institutions.

Traditionally Gilts market in India saw wholesale market players participating as these institutions, predominantly being part of the Government, were also supposed to help Government to raise resources from the market as there was no appetite for the same among retail investors and this was also institutionalized with regulatory requirement of SLR holdings. As things progressed, regulatory requirement underwent change so also the valuation norms that allowed market participants to trade in Gilts. This can be explained with the increasing volume of trading in Gilts market. To take the reforms process further, it was necessary to reach out to retail investors as a market needs high

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level of retail participation to grow. In the light of the above, the regulators thought it prudent to allow focused retail secondary market trading in Gilts through exchanges as it is one of the best way to reach out to a large section of investors that are connected to stock exchanges through their networks.

Fixed-income securities markets have traditionally been decentralized, with trading in over-the-counter (OTC) markets where the physical trading infrastructure has played a minor role. Trades have been conducted by dealers or large investors who directly contact a number of potential counterparties or by brokers in the professional dealer market, with trades completed by telephone. The relatively informal infrastructure has served the needs of wholesale market participants as well as dealers, brokers, and, to a lesser extent, their institutional clients. Most fixed-income securities markets have traditionally been opaque, with scant and delayed information on transactions available to the public. In contrast, the general transparency of most government securities markets in the world is low, reflecting the traditional wholesale nature of the market and the perception among some market participants and regulators that there is a trade-off between liquidity and the level of market transparency. Institutional participation in Gilts is a must at the initiation of any market movement. The institutional participation structure provides a solid foundation for any market but as the market develops, it naturally brings many others including small investors to its fold provided the market is perceived as safe and liquid. International experience also tells us that developed markets like USA has a large retail investment even if we exclude funds that also receive large amount of investment from retail investors. The USA market has a whopping 10.4% individual participation as of June 30, 2002. The experience of equity market in India gives us enough encouragement to believe that retail participation in Gilts market would increase over time. The retail participation in equity market in India has very little parallel in international equity markets where the major role was played by investment funds but in India small retail investors directly participated in the market. Hence the structure of Indian market is a bit different from other developed markets and the success of equity derivatives market in India has proved the point beyond any reasonable doubt. The experience of the equity as well as the derivatives market in India has clearly shown that the cost of intermediation as well as the actual cost (implicit as well as explicit) of doing a transaction comes down drastically when the liquidity increases and the retail investors enjoyed the benefit.

It has been argued and opined by eminent economists that next phase of growth is likely to be the fixed income securities market as most governments have revealed a common interest in fostering market liquidity and policymakers have regarded the size of the government securities market as a key consideration. In industrial countries where budget surpluses are shrinking debt, the authorities are trying to preserve liquidity by maintaining gross issuance in specific securities even as net issuance in all securities declines. At the same time, authorities in emerging market countries view growing debt as providing an opportunity to develop domestic bond markets. Such markets would help reduce not only the cost of borrowing but also reduce institutional risk on financial system. History suggests that risk premiums fall as the perceived threat of an economic downturn progressively fades.

Central banks have multiple interests in the development of Gilts markets. At a fundamental level, the Gilts markets help to fund budget deficits in a non-inflationary way and so enhance the effectiveness of monetary policy. In addition, many central banks use Gilts markets for the conduct of monetary policy as well as Government debt, including participating in clearing and settlement process. The experience of Mexico, Brazil and Chile in developing the bond market in their respective countries is commendable. These countries have been striving to develop a more sustainable debt structure in stages. The Chilean market today boasts of holding by pension funds and pooled funds over 50% of GDP equivalent of Gilts and it is the most developed market in Latin America. The equity as well as fixed income securities market plays equally important roles in sustaining long term development in developing market.

Retail Gilts Market in India

The outstanding debt of the Government is estimated to be about Rs.6,30,000 crores and the average cost of borrowing has remained high as earlier borrowings have been made at higher rates though the cost has come down substantially for the new debts. However, we need to understand the rationality of such fall in interest rate and the risk it poses on the financial system. Today, due to institutional structure of the Gilts market, institutions have been pumping in funds to the market as the credit off-take from banking industry is not encouraging and hence creating more demand for Gilts and reducing the yield and increasing the price. This process may create institutional risk for the financial system in the long run and in the better interest of the all concerned, the market should be broad based as it will not only create additional demand for the Gilt stocks but also reduce the risk of concentration. This will result in genuine low yield due to demand spread across various segments of the market and hence the lower cost of borrowing for Government. The basic purpose of developing the retail Gilts market is to make financial markets more complete by generating market interest rate that reflect the opportunity cost of funds at each maturity. Another general reason for developing retail bond market is to avoid concentrating intermediation uniquely on banks. Since banks are leveraged, this may make the economy more vulnerable to crises. The damage caused by such crises to the real economy is generally more vulnerable to restructuring process more difficult, in the absence of a well functioning and well-developed bond market. A well-developed bond market with active retail participation can realistically be expected to substitute for institutions. Another reason for fostering bond market is that such a market can help the operations of monetary policy. A well functioning Gilts market is essential for smooth transmission of policy as monetary policy relies increasingly on indirect instruments of control. In addition, prices in the long-term bond market give valuable information about expectations of likely macroeconomic developments and about reactions to monetary policy moves. A major problem of high concentration of institutional participation in Gilts market is it makes the market a "captive" one which can undermine the creation of a true market in bonds, and in effect deter other investors.

No doubt, valuation of bonds by retail investors will not be as perfect as institutional investors at the beginning when the market lacks liquidity but as the market develops and liquidity increased, there is no reason to believe that retail investors will not be able to do a just valuation of tradable bonds. It requires some effort in educating the retail investors and the equity derivatives market in India also proves that with education, this handicap can be over come in the long run. Traditionally retail investors have invested in bank deposits and have taken the repricing risk as well as reinvestment risk. When an investor invests in a bank deposit, he is not really bothered about the risk profile of the bank in the balance sheet. If that had been the case, then during last few years nobody would have invested in deposits of United Bank of India, UCO Bank and Indian Bank whose networth turned negative before Government support came in the form of recapitalisation. People relied on the fact that these banks were part of sovereign body and hence did not perceive any credit risk. The way yield is important to retail investor in Gilts market, the same way the interest rate in SB or fixed deposit account is equally important. The way yield has been falling in Gilts, the same way there has been fall in interest rate on fixed deposits. The fall in interest rate on fixed deposits have not seen fall in outstanding fixed deposits of the banking system. Hence when investing in Government securities, it is not rationally correct to question the balance sheet of the Government. Government bonds are the backbone of most fixed-income securities markets in both developed and developing countries as it provides a benchmark yield curve and help establish the overall credit curve. Government bonds typically are backed by the "faith and credit" of the government, not by physical or financial assets and hence "risk free". Any portfolio diversification needs the combination of risky and risk free securities. A risk free security is bound to provide much lesser return than the risky security.

A retail market will not only attract retail investors who, until recently, had not been able to buy Gilts in small amounts but also it will give opportunity to institutional investors to offload securities in the market and retail investment level is very low and has a higher possibility of growth. There are many investors who would possibly like to buy the Gilts and hold the same till maturity, the way they invest in fixed deposits. There is no reason to believe that retail investors would be forced to price bonds without the benefit of knowing the price of institutional investors are willing to pay. When the market develops, at the initial stage, there would improper or higher bid-ask spreads but as liquidity increases, this imperfection would surely go away. There is no reason to believe that retail as well as institutional investors would not participate in price discovery process. If the market can create liquidity, this will not be an unsolved mystery. Moreover, the novation or guarantee of settlement would also make this market more attractive.

Initially, as the experience suggests, the transaction cost for the retail investors would be little higher as their size of the trade would be small unlike an institutional investor. But once the market liquidity increases, it would also fall. However, it need to be kept in mind that transaction cost for a large deal would be surely less than a small deal under any circumstances because of economies of scale. Today, the retail investor has to pay a high hidden cost in the form of late clearance of his payout cheque from the institutional intermediary that can be removed through the mechanism of straight through processing which is in place in equity market in India.

In India about 65% of transactions are done with the help of brokers in the market and in any market development, intermediaries play a very important and dominant role. Today institutional players have in an advantageous position due to fragmentation of the market into retail and wholesale. If we close this artificial barrier and merge the wholesale and retail market together, it would surely enlarge the market and remove the possible discrepancies and provide equal access to all as in the case of equity and equity derivatives market. This will not only increase liquidity and it would also serve the purpose of redistribution of holdings in Gilts. This will surely make price discovery a process of participation by retail as well as institutional players.

Hence providing an exchange based retail trading of Gilts in India is a first step in the right direction as it facilitates participation of all investors who were not able to participate in institutional markets directly. However, there are investors who have been investing in the market through institutions who have been happily charging them not only the intermediation fees but also pass on their inefficiency cost to the clients. This is happening today, as investors have no choice but to access the institutional market through these institutional intermediaries. And all those who cannot directly access the institutional market till now can think of participating directly in the market in the new environment. A market will serve the best economic purpose if all have equal access to participate in the same irrespective of their financial clout.

There has been arguments in the press that the growth of retail market would not ensure reduction in cost of borrowing for the Government. We have seen during last couple of years that the cost of borrowing has been steadily falling that is a market outcome and not because of institutional participation in the market. Today non-competitive bids are accepted from retail investors upto 5% of the issue size that can be increased once the retail participation increases. If there is enough retail interest in the market, an IPO mechanism can be introduced through book building system that is in vogue in stock exchanges that will surely be transparent and would produce the best price discovery mechanism. Hence it is not proper to argue that aggressive participation by retail investors would not help the Government to reduce its borrowing cost. No issuer, even if it were Government, would like to pay higher cost than what the issue deserves in the ongoing market structure. It is necessary to understand that risks in the primary and secondary markets are different. The secondary market price would be driven by the intrinsic value of the asset that may not exactly match the price an investor paid in the primary market.

It is argued that as there are many sovereign products that provide higher yield than the Gilts of similar or higher maturities, it may not enthuse retail investors to participate in the market. It needs to be kept in mind that there has been increasing rationalization of interest rate structure and sooner or later all interest rate are going to be in sync with the Gilts rates with premium for illiquidity.

The market would be best served if the Government introduces zero coupon papers in large volumes to take care of reinvestment risk but this will surely not take out the price risk, as the movement of interest rate would determine the same. However, there have been discussions to introduce STRIPS to provide large stocks of various maturities as well as various options to investors to lock into various terms as per their need.

Valuation Methodology

The market has been using YTM for valuation purposes due to unavailability of an acceptable spot curve. If we believe in time value of money, there is no reason why all future cash flows have to be discounted by the same yield. The future cash flows should be discounted with the yield pertaining the associated term. However, the dissemination of NSE Zero Curve has helped in mitigating this problem of true valuation. Globally, spot curves are derived out of the coupon paying bonds and there is no reason why we should have only zero coupon bonds if we want to have a proper spot curve. There are many methodologies like Nelson-Siegel functional form, Cubic splines, B-splines, etc., that can be used to derive such spot curve. Stress testing of the same can reduce noise significantly and can be replicative of the term structure of the market. A zero coupon yield curve will be useful for valuation of non-traded securities, provide model prices for all securities and can be used to calculate the VaR numbers and can also be used to construct a benchmark index or a synthetic security.

Another point needs to be kept in mind that developing a zero curve out of zero coupon bonds will remain a mystery in the present Indian scenario as it will not be possible to replace the existing outstanding into zeros unless we introduce STRIPS. Further at any point of time, there cannot be physically zeros trading in all maturities and hence a method of bootstrapping and interpolation need to be done to arrive at a zero curve. The fundamental theories behind these methods are not sound and have little theoretical and statistical backing. Hence a model driven determination of term structure is not only robust in methodology but also well accepted in all spheres of life in bond market.

In fact, forecasting with the yield curve does have a number of advantages. As deregulation of interest rate in India has paved the way for the market to determine the true cost of money, by some measures, the yield curve should be an even better predictor now than it has been in the past. Policymakers also need an accurate and timely predictor of future economic growth and indicator of monetary policy directions. The central bank of the country should need it more as the yield curve will provide him the indicative rates at which the Government securities are going to be issued in auction.

Conclusion

Bond markets worldwide are built on the same basic elements: *a number of issuers* with long-term financing needs, *investors* with a need to place savings or other liquid funds in interest- earning securities, *intermediaries* that bring together investors and issuers, and an *infrastructure* that provides a conducive environment for securities transactions, ensures legal title to securities and settlement of transactions, and provides price discovery information. The *regulatory regime* provides the basic framework for bond markets and, indeed, for capital markets in general. Efficient bond markets are characterized by a competitive market structure, low transaction costs, low levels of fragmentation, a robust and safe market infrastructure, and a high level of heterogeneity among market participants.

The retail trading in Gilts has been the best thing to happen to Indian financial system. It provides a facility to all who were missing the institutional market. To take care of the risk of pricing that will percolate down to other market participants, it has been suggested to use the model price for risk management rather than the observed prices. This is important in an illiquid market and a robust model will capture the illiquidty and according charge the premia for the same. The spreading of the market will also reduce the captive nature of the market. A diversified investor base for fixed-income securities is important for ensuring high liquidity and stable demand in the market. A heterogeneous investor base with different time horizons, risk preferences, and trading motives ensures active trading, creating high liquidity. On the other hand, even liquid markets can become illiquid in periods where one group of investors leaves or enters the market over a short period and where there are no counterbalancing order flows from other investor groups.

The exchange driving retail trading in Gilts provide the following distinct advantages. (a) the stock exchanges are best suited to promote retail trading in Gilts as they can reach the wide spectrum of investors located in all parts of the country in a very short time through their broker network; (b) it provides a vehicle for risk diversification to all investors; (c) it also provides the vehicle for efficient price discovery in primary as well as secondary market; (d) it also provides the scope for reduction in cost of debt issuance for the Government; (e) it provides the scope of better money management by the RBI as it would move away from a captive market; (f) it would also reduce institutional risk concentration; (g) it would also allow equal access to all types of investors to a market which was within the realms of the institutional market till recently; (h) it would also lead to better liquidity and fall in intermediation cost as we have seen in equity markets; (i) it would provide guarantee of settlement to all participants in the market; (j) it would also bring out the regulatory clarity as the retail trading in Gilts through stock exchanges would be guided by SEBI; (k) and it would ensure that market follows an uniform risk containment system for all.

In many emerging markets, the administrative and information technology costs of going straight to retail investors have been prohibitive. However, the situation in India ha been different with well spread out exchanges offering connectivity at remote areas, the situation is rapidly changing, and possibilities for cost-efficient sale and distribution of government securities are increasing. Utilizing the new technology to access a broader set of potential investors could also have implications for the design and functioning of the primary market, and will put bank dominance in the retail end of the market under pressure.

The ability to use audit trails and other forms of off-market surveillance to detect trading practice violations, such as front running and market manipulation, is also an essential aspect of any efficient system which is not possible in an OTC market. The safeguards, which need to be compatible across trading systems, will be increasingly essential as a defense against systemic risk and this can be met by stock exchanges only.

Catering to the needs of retail investors is often an essential part of the overall strategy to develop a more diversified investor base for government securities. Retail investors will contribute to a stable demand for government securities, which, in times of volatility, can cushion the impact of sales from institutional and foreign investors. The future will say whether introduction of retail trading in Gilts through stock exchanges is a correct decision or not. There is nothing wrong in providing an alternative and easy mode of avenue for investment to investors as the existing infrastructure and system has been leveraged without significant additional cost. It is a choice for the investors to make. We should stop making decision for him and telling him whether retail trading is good or bad, rather we should allow him to take his own decisions given the infrastructure.