SBP Research Bulletin
Volume 3, Number 1, 2007

Developing Bond Market in Pakistan

Muhammad Arif*

Purpose of this paper is to highlight those areas that are essential for developing bond market in Pakistan. Recommendations have also been provided for apprehending the steps required for development of this segment of financial market.

1. Introduction

Emergence of fixed income markets is a recent feature, predominantly spread 1970 onward period. It is a market falling in between equity market and bank finance and suits to that class of investors/borrowers who either are not considered high risk taking investors/borrowers or act under relatively safe parameters within bank finance. Development of zero coupon instruments and later innovations paved the way for development of a market which is quite complex as compared to bank and equity finance markets; however it provides new heights to the investors as well as issuers to match their requirements.

The perpetual cycles of crisis emerged on the financial horizons during last decade of 20th century, but the first five years of the 21st century have strongly conveyed the message to diversify the risk profile within financial system. This can be done by adding fixed income market as an alternate to source of funding through banking and equity sector. With this perspective, development of Fixed Income Market has attained high importance in new financial market architecture.

Pakistan is far behind in this segment as compared to contemporary markets in emerging group of countries as evident from the data (Table 1, Table 2, Figure 1, and Figure 2). Hence, lots of efforts are required to be made to cover short falls and to move forward.

* Senior Joint Director, Financial Markets Strategy and Conduct Department, State Bank of Pakistan [muhammad.arif@sbp.org.pk]. The author acknowledges the support of Muhammad Aamir Mahmood in formatting and giving final shape to the paper. Views expressed in this paper are strictly of the author and do not necessarily represent those of the State Bank of Pakistan.

Table 1. Size of Local Currency Bond Market as a % of GDP, 2005

Country	Government	Corporate
China	22.16	12.96
Hong Kong	9.17	38.85
Korea	24.77	58.26
Malaysia	39.1	54.14
Singapore	40.18	31.29
Pakistan	4.4	0.90

Table 2. Total Size of Local Currency Bond Market, 2005

Country	Total Size (Billion USD)	Percent Share	
		Government	Corporate
China	633.03	63.6	36.4
Hong Kong	85.09	19.1	80.9
Korea	637.86	29.8	70.2
Malaysia	121.79	41.9	58.1
Singapore	83.43	56.2	43.8
Pakistan	6.528	82.87	17.13

Figure 1. Size of Local Currency Bond Market as Percentage of GDP - 2005

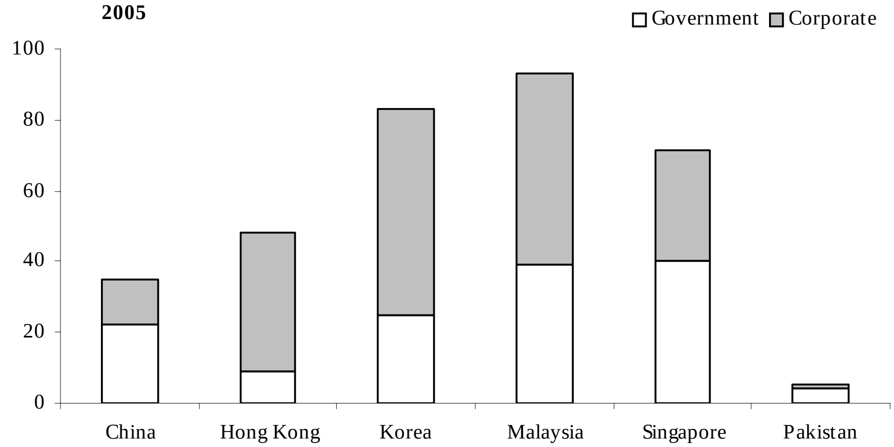
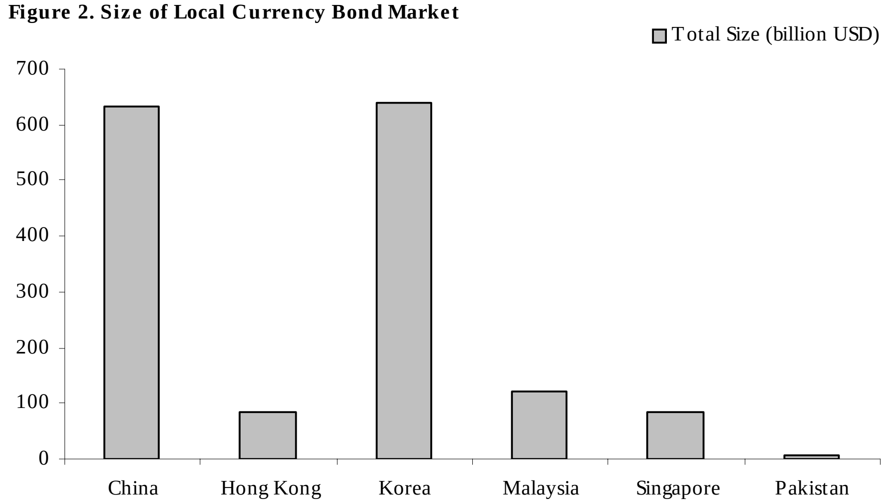


Figure 2. Size of Local Currency Bond Market



2. Country Context

After independence in 1947, Pakistan inherited underdeveloped financial system and had to start from scratch; various experiments and developments were due on its agenda. Initial phase was marked with development of commercial banks in private sector and Government Financed Development Financial Institutions. The first Stock Exchange was constituted in 1947 and State Bank of Pakistan (Central Bank) came in to being in 1948.

The eras of financial market developments in Pakistan can broadly be segregated into 1947-1960, 1961-1970, 1971-1990 and 1991 to date periods. The 1947-1960 period was marked with private sector development, however this trend was overshadowed in 1961-1970 when Public Sector Development Institutions overtook. This trend sharpened in 1971-1990 when private sector developments altogether shrunk and banking industry came under Government control. Post 1991 period witnessed liberalization stance of the Government and market-based reforms.

Growth of fixed income market in Pakistan also followed the pattern as envisaged in above developments. Initial phase lasted up to 1990, when Federal and Provincial Governments used to borrow on tap instruments with predetermined rates. The main thrust of Federal Government borrowing was through captive funding. Large statutory preemptions and borrowing from the SBP at highly concessionary rates enabled the Governments to finance their large fiscal deficits. In such an environment the only tool available to counteract was to make successive increases in Statutory Liquidity Requirement (SLR) and Cash Reserve Requirement (CRR), so as a whole there was very little scope for development of Government Securities Market in Pakistan that could provide benchmarks for private sector to play their role in development of Capital Market in the country.

To cover non banking segment, Prize Bonds were introduced in 1960 followed by various National Saving Schemes (NSS); however they were no alternate to market based instruments as they were all on tap.

Onward 1990, market based Government Securities came in to existence. With the introduction of long term paper in 1992 (FIBs), long term yield curve came in to being giving opportunity to the Corporates to come up with their instruments that became reality in 1995 (Issue of First TFC), however actual pace gained momentum onward 2000, with the introduction of long term instrument i.e. Pakistan Investment Bonds (PIBs), but the pace is still very slow with issues still to overcome. The basic issue at the moment is to keep regular supply of long term Government of Pakistan (GOP) instruments which have been scarcely supplied in the preceding three years. This has made the long term yield curve non representative thus increasing pressure on short term yields. As the Sovereign Yield curve serves the purpose of providing bench mark to overall Financial Market transactions, so the situation has hampered the growth of Fixed Income segment in Pakistan more significantly as compared to other segments and this obstruction is needed to be removed instantly for the development of Fixed Income Market in Pakistan.

3. Essentials of Developing Fixed Income Instrument Market in Pakistan

Following are the essential areas which are necessary to be developed for realization of fixed income market in Pakistan.

3.1. Money Market and Monetary Operations

First area required for the development of fixed income bond market is to have well functioning Money Market knitted with well directed Monetary Operations.

Prerequisites for this area are:

- Liquid and well functioning money market,
- Money Market Coordination with Monetary Operations,
- Indirect Monetary Policy Instrument,
- Strict accommodation policy,
- Reserve requirements to the desired level of banking system,
- Use of single instrument for Treasury funding and Central Bank Operations,
- Coordination of Government Debt and Cash Management with Monetary Policy.

In case of Pakistan, the monetary tools being used currently are Auctions of Government securities, Open Market Operations, Reserve Requirement, Swap and Discount window. However, the most active tool being used for managing very short-term interest rates is Open Market Operations (OMOs) that are called by the State Bank of Pakistan (SBP) as and when market conditions desire. Under OMOs, SBP targets Monetary Aggregates by adjusting banks' reserves. But for interest rate signaling, auction cut-offs of Market Treasury Bills (MTBs) are used and in this respect 6 months MTB instrument is considered prime as 6 months MTBs were introduced in 1990 followed by 3 and 12 months MTBs in 1997, so market was quite used to with this tenor. Secondly, for GOP borrowing from SBP and for setting export refinance rates, its cut offs are used as benchmark rates.

Monetary policy transmission mechanism adopted in Pakistan is that of targeting the monetary aggregates, therefore perfect control over interest rates can not be obtained at any point in time (as only one variable can be controlled directly, either price or quantity). In this framework it is assumed that through restricting the money supply, interest rates can be controlled effectively. This creates volatility as perfect control over interest rates can not be achieved by adopting this mechanism which is not conducive for development of Fixed Income Market in Pakistan.

However to cover up this lacuna, firstly, Central Bank Money Market operations have recently been aligned with Monetary Operations by making OMOs more flexible. In 2002, pre-determined approach was abolished and conduction of OMOs was made flexible, on as and when required basis, to counter unpredictability of cash flows (but tenors were in the multiple of one week). This to some extent helped in better management of liquidity and kept short term interest rates as per monetary policy targets. However, even with flexibility in conducting OMOs, as the tenors were in multiple of one week, overnight rates were, at times remained subject to huge volatilities. In April-2005 to counter

Table 3. Statistics on O/N Rates

O/N Rates	FY 2004-05	FY 2005-06	FY 2006-07
Average %	3.95	8.07	8.01
S D	2.33	0.75	0.97
C V	0.59	0.09	0.12

interim flows and reserve averaging liquidity, it was decided that broken-date OMOs can be conducted (from 01-day onwards). This helped SBP in managing market flows effectively and bringing short term rates in line with Monetary Policy objectives.

With flexibility in OMO tenors, frequency and direction, their effectiveness as Monetary Policy and Liquidity Management tool has improved. Secondly, alignment of OMO yields with MTB yields tends to make MTB auctions attractive which are the main tool to absorb liquidity for a longer period. The strategy as such has worked effectively in 2005-06 making it possible to absorb all MTB maturities falling in 2005-06 and to curtail volatility in O/N rates.

From Figure 3 and Table 3 it is evident that market volatility has been tamed to some extent which is a positive sign for the growth of fixed income bond market as eventually through this condition the investor can have a better view on interest

Figure3. Volatility of Overnight Rate

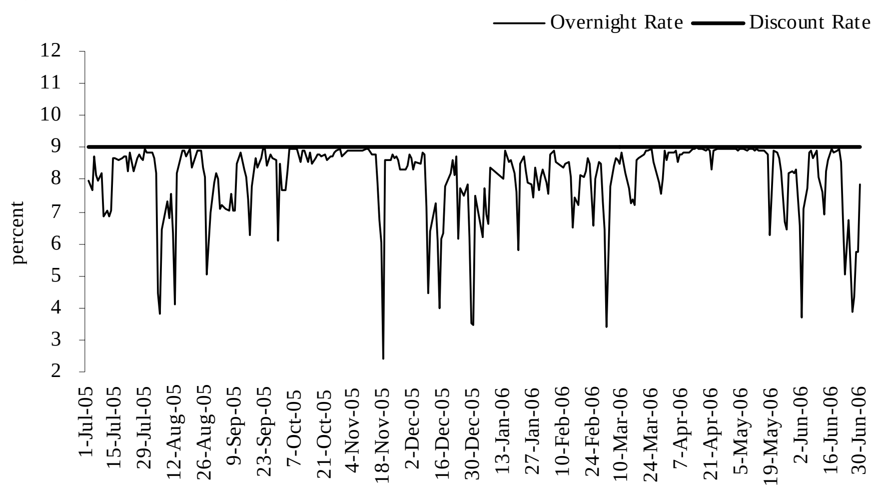


Table 4. Changes in Liquidity Ratios

Effective From	SLR in Percent	CRR in Percent
13-08-1992	35	5
19-12-1992	40	5
27-10-1993	30	5
01-03-1994	25	5
28-05-1997	20	5
02-01-1998	18	5
22-06-1998	15	3.75 LCY & 5 FCY
19-05-1999	13	3.5
12-07-1999	15	5
07-10-2000	15	7
16-12-2000	15	5
22-07-2006	18	7

rate movements. Further, since interbank market in Pakistan has attained some maturity after introduction of indirect tools of monetary management, liquidity ratios of the banking system have also been brought down as can be seen in Table 4. This gives leverage to the banks to play their due role in intermediation of financial transactions.

Another development in Money Market area is growth of Repo Market in Pakistan which is the largest in the region as compared to its volume. Repo Market covers the larger part of the overall volume of the interbank market as evident from Table 5.

Developed and well functioning Repo market gives flexibility to the investors to fund their investments with ease. So as a whole these developments have given boost to the development of Fixed Income Market in Pakistan; however in liquidity Management the main constraint at the moment is the lack of Coordination of Government Debt and Cash Management with Monetary Policy, so this area needs to be addressed for better liquidity management.

Table 5. Market Volume of Call, Repo and Outright **(PKR in billion)**

Financial Year	Call	Repo	Outright
2004-2005	1314.11	5813.18	1,415.19
2005-2006	1151.53	7469.91	1070.46

Recommendations:

- To improve Management of Government cash flows to maintain better liquidity management by the Central Bank,
- Issuance of Securities for both Monetary and Fiscal policy purposes.

3.2. Issuance Strategy, Market Access, and Debt Management Framework

Second area required for the development of fixed income Bond Market is to have Issuance Strategy, Market access and Debt Management Framework right in place.

Prerequisites for this area are:

- Market Oriented Strategy,
- Level Playing field for all investors,
- Disclosure of information on Government Debt Profile,
- Discontinuation of Captive Source of Funding,
- Dealing between Market Participants,
- DVP and quick distribution system,
- Prudent Risk Management system,
- Analytical Capacity Building of DPCO,
- Disaster Recovery Plan.

Several jurisdictions have systematic patterns for the issuance of Government Bonds in terms of regular calendars for issuance, auctions, and frequency of issuance. China, Chinese Taipei, Korea, Malaysia, New Zealand and Singapore provide the annual issuance plans mostly by the end or beginning of each year, or at the budget time each year. The annual issuance plans cover at least issuance size and potential new issues for the New Year while the other details are announced later. Hong Kong, Philippines and Thailand provide issuance calendar quarterly. An issuance calendar for the next three months is always available in Japan.

Contrary to these practices, though 3, 6 and 12 months T-bills auction is held each fortnight with known track to the market, targets are announced two days prior to auction date. Since T-Bills are used as a monetary policy instrument, targets remain at the discretion of the Central Bank. As regards Long term instrument (PIBs), their auctions are scheduled to be held each quarter, but for the last three years, DPCO/MOF has not agreed for their floatation and very small amount has been allowed. This situation reflects need for lots of reforms to be made at

DPCO's end for their capacity building and raising their analytical skills in managing GOP debt portfolio which is highly skewed towards shorter end of the yield curve creating roll over risk for the GOP and distortion in yield curve essential, for the development of Fixed Income Bond Market in Pakistan.

Recommendations:

- To define and adhere to the principles of broad market access and transparency in Government funding operations,
- To define clear objectives and debt management strategy that involves market finance and introduction of risk management objectives,
- To build sound institutional framework for debt management with appropriate governance structure,
- To identify how technology can be used to create new channels for securities distribution.

3.3. Developing Benchmark Issues

Third area required for the development of fixed income bond market is to have benchmark issues in the market.

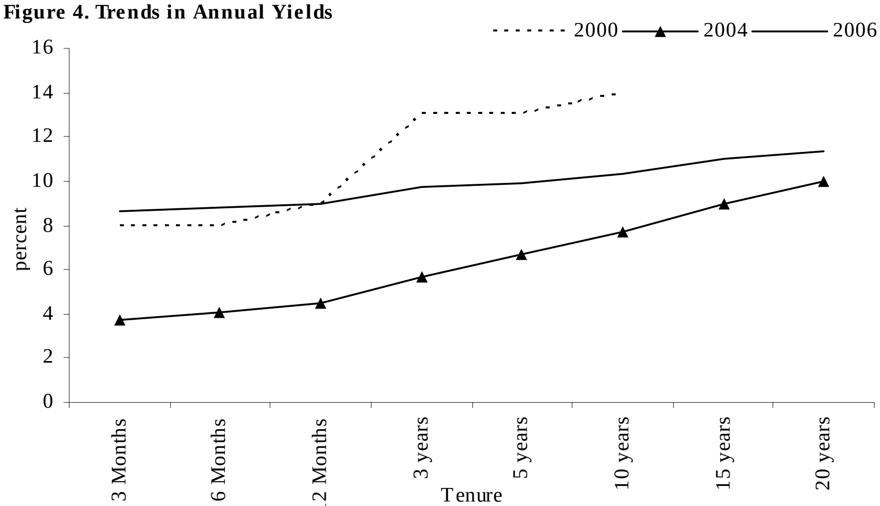
Prerequisites for this area are:

- Building yield curve through concentrating Government Bonds issues in a relatively number of popular standard maturities,
- Reducing number of issues to minimize trade off between building liquidity and minimizing rollover risk by concentrating issues on maturities that market considers key and by spreading across relatively wide range of securities,
- Fungiblity through reopening and buy back operations.

Experience of developed and developing countries tells that developed countries have been able to build benchmark yield curve that spans short term yield bills to long term bonds, whereas developing countries have been unable to do so due to their macro economic environment. Number of benchmark issues in G-10 countries varies from 1 to 12; whereas, Japan has only one of 10 years maturity bond while on other extreme, Holland has 12 benchmark issues with short term maturity to long term maturity. Asian emerging-market countries experience tells that prior to 1997 crisis, except China and Philippines, most of the East Asian Emerging-market countries were not active issuers of the Government Securities as they were running fiscal surplus, however now all countries including Hong Kong are issuing securities spanning from 28 days to 10 years. Reopening operations are carried out in almost all countries like France and New Zealand whereby same maturity bond is offered in the consecutive auctions for a year or for more than one year. Japan is an exception where no reopening operations are carried out. Buy Back operations are carried out in some countries through reverse auctions/outright purchase/conversion from one issue to another to squeeze the number of issues to strengthen benchmark issues.

In Pakistan benchmark issues at the shorter end have never remained an issue as their supply have remained consistent, but at the longer end small size issues and inconsistent supply of long term instruments have always created problems in creating long term yield curve in the market. From Figure 4 one can see the difference in yield curve 6 years back when long term instruments were non existent in the market; so, it was abnormal at that point of time. However steepness emerged in 2004 when GOP came up with large size PIB issues providing liquidity in the market. The curve has again flattened on getting the PIB market dry with no supply from the GOP. So there is a need to strike a reasonable balance between short and long term borrowing by the GOP to create effective bench mark issues in the market. This is not strange that by following this strategy, weighted average duration of the GOP domestic debt portfolio is just 1.1 year (2006); whereas, in Sri Lanka it is 1.71 year and in India it is above 5.00 year. In developed countries this duration is mostly above 8.0 years.

Figure 4. Trends in Annual Yields



Recommendations:

- Standardized simple instruments with conventional maturities be used,
- For large issues, priority should be given to developing fungible issues that could be turned in to liquid benchmarks,
- Buy Back and reopening programs be established.

3.4. Investor Base

Fourth area required for the development of fixed income bond market is to have diversified Investor base.

Prerequisites for this area are:

- Identification of demand for Securities from varied investors,
- Resolution of policy issues concerning development of investor base,
- Conversion from captive base to voluntary base,
- Promotion of financial institutions for their active trading,
- To attract non financial investors,
- Allowing entry of foreign investors.

Experience of developed and developing countries in diminishing reliance on captive source of Government Funding reflects that until 1980s most of Western Europe and Anglo American countries were relying on this source. Recent example is of Singapore, where Central Provident Fund is required to be invested in non marketable Government Securities. However, this trend is now under decline. Diverse investor base lowers the debt cost and volatility in market yields. Banks, Contractual Sector Investment Funds (Pension Funds and Life Insurance Co.), Collective Investment Funds (Mutual Funds), institutional investors and individuals belong to the prominent investors class. Spain is one of the examples where Government complemented the development of Mutual Fund Industry through regulatory and legislative framework by carrying out (a) creation of an investment fund industry (b) establishment of repo and derivative market and (c) accounting and taxation reforms. Retail investors are also an essential part of overall strategy to develop a diverse investor base. In many countries including Pakistan the need of Retail Investors are met by issuing special non marketable financial instruments called NSS, which encourages saving habit but carry high distribution cost and induce unfair competition with banks. In developing Retail investor base which is most reliable investor base one needs to take account of security, high yields and ease to access. Foreign investor base can enlarge the investor base and contribute to financial innovation in domestic markets thereby yielding efficiency gains and the introduction of good practices in the provision of financial services. However, they are more prone towards risk as they are more susceptible to market volatility, hence to check this risk, prudential supervision and regulations are adequately required before moving towards any financial liberalization.

In Pakistan this area is at high neglect and mostly the banks are active investors in Securities Market. To the extent of short term investment it seems fine, but if they go for investment in long term securities than obviously they are going to burn their fingers at some point of time and particularly under rising interest rate scenario. This happened during 2000-2003 (under declining interest rate scenario) when the banks invested in PIBs heavily however on reversal in trend they were inflicted with losses. During first half year of 2005 the loss amounted to Rs 16 billion which if would have been charged to their P&L Accounts, would have eaten major portion of their profits. However they got rescued by shifting these investments in to their Held to Maturity portfolio.

Another major drawback in this reagrd is the lack of investor's awareness regarding Fixed Income Investments. Even Federal/Provincial/Local Governments' provident Funds are currently lying with the banks with lesser returns as compared to having better opportunities in Fixed Income instruments.

Another area that needs to be developed is to have actuarial disclosures of the Corporates that would provide actual data that how much appetite exists for the investments from this side. As per rough estimates Rs 200-300 billion is lying untapped that can be channelized in to Fixed Income Market by creating market awareness.

Mutual Fund Industry considered to be the backbone of fixed Income Market is at its infancy in Pakistan. Pakistan was the pioneer in the field of Mutual Funds in the South Asia Region, when it launched National Investment Trust (NIT), an open-ended mutual fund in 1962, followed by the establishment in 1966 of Investment Corporation of Pakistan (ICP), which launched a series of close-ended mutual funds. Both NIT and ICP were established in the public sector. However, it (Pakistan) subsequently failed to maintain the tempo of the initiative taken in the field until early nineties mainly due to following reasons: (i) Frequent changes in economic policies; (ii) High rates of alternative investment such as NSS; (iii) Capital outflow; Limited investment options; (iv) Profusion of risk free investment options in Government securities; (v) Lack of awareness among the general public about collective investment schemes; (vi) Lack of aggressive marketing and distribution network.

During the last couple of years, the industry has made a remarkable and phenomenal growth not only in its size and category (open end funds and closed end funds) but also in product diversification and market penetration due to sprouts mutual funds on its horizon.

As of now, there are twenty eight asset management companies in Pakistan out of which twenty seven are registered with Mutual Funds Association of Pakistan (MUFAP). The member companies (27) of MUFAP are managing forty six (46) funds, twenty (20) in closed end sector and twenty six (26) in the open end sector with total net assets under management respectively at Rs. 47.263 billion and Rs. 120.666 billion totaling Rs. 167.929 billion as of 30-04-2006. However Pakistan is still far behind as evident from Table 6.So a gradual but rapid development is required from this side as well.

Recommendations:

- To reform Contractual Savings Systems and Insurance Sector gradually moving from quantitative, restricted investment framework to a prudent market based investment framework,
- To Develop Mutual Fund industry,
- To improve information and actuarial disclosure requirements for institutional investors,
- To review laws and regulations applicable to collective investment vehicles in offer to maintain proper separation between asset Management

Table 6. Number of Funds in Selected Countries

Country	**Assets** ($ in billions)	**No. of Funds**
USA	8,977	14,026
Hong Kong	404	1,040
India	38	415
Japan	406	2,576
Korea	189	6,568
New Zealand	10	554
Philippines	1	28
Pakistan	2	33
Taiwan	71	453

and Investment Banking,
- To improve supervision and regulation of financial institutions,
- To introduce Certification Standards for Investment Advisors,
- To evaluate the benefits of encouraging foreign investors, such as eliminating with holding taxes on their investments,
- To promote Retail Investors interests through new distribution channels including Mutual Funds and automated trading formats.

3.5. Primary Market

Fifth area required for the development of fixed income bond market is to have a developed Primary Market in the country.

Prerequisites for this area are-

- Sale of securities through auction in the first place,
- Sale of Securities on Syndication/Underwriting/Tap Sales/Private Placements as and where required,
- A time table with less frequent auctions and reason able volume for each auction,
- Announcement of Government borrowing requirements and borrowing calendar,
- Dissemination of auction data,
- Distribution through Primary Dealer system.

Although some developed countries have set up system of Primary Dealers at some point in the development of their Government Securities market but several countries have succeeded without them. The development of electronic trading system and internet can play a useful role in the issuance and absorption of Government securities and over time can reduce the role of Primary Dealers in the Primary Dealership market. Obligations, privileges and eligibility criteria for Primary Dealers are very important and they are two way affairs. Developing Primary Market is a dynamic process that depends on a country's initial condition and on the sequencing of reforms. In some countries like USA same financial institutions as Primary Dealers are used for monetary policy Operations; however, two sets of Primary Dealers are possible. One can be used for issuer and other for Central Bank Operations.

Pakistan started developing Government Bond market in 2000 by introducing Pakistan Investment Bonds and making their sale through selected Primary

Dealers. Though first market based long term instrument (FIB) was issued in 1992 but they were allowed to be accessed by all the financial market players in the Primary Market, however with the discontinuation of this instrument in 1998 (Reason being that yield curve became inverted) it was felt that fresh efforts may be started by selecting financial institutions having expertise to deal in securities business. Now the system of PD has gone through an experience of six years. During this period Central Bank made changes in rules governing their rights and obligations and lately they have been made subject to performance criteria for their yearly evaluation. During last six years the system remained comprised of following institutions:

Financial Institution	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**
Banks	7	7	7	8	10	12	10
Brokerage House	-	-	-	-	1	1	1
DFI	-	-	-	-	1	1	1

From above it is evident that Commercial banks have remained the main part of the PD system in Pakistan which ideally does not suit the system as a PD is required to raise its inventory for onward distribution whereas in case of banks they some time go for their own inventory for their reserves requirements. This distorts the pricing in the market. However there is no other solution at the moment as brokerage houses/DFIs/Investnmnet Banks ideally suited for the job have very weak equity base and hence can not be assigned the responsibility.

The other issue is non existence of auction calendar for the issuance of long term instruments. Further the auctions announced in this respect most of the time represent small size issues that are not sufficient to create Bond Market liquidity.

Recommendations:

- PD system be developed in gradual manner by involving potential non bank financial institutions to become part of PD system,
- Government borrowing requirement/Calendar of auctions be announced annually.

3.6. Secondary Market

Sixth area required for the development of fixed income bond market is to have well functioning Secondary Market in the Country.

Prerequisites for this area are:

- Low transaction cost,
- Wide availability and continued pricing,
- Wide accessibility to trading system and intermediaries,
- Safe and rapid settlement of transactions,
- Effective custodial and safe keeping services,
- Use of Repo agreements,
- Well established derivatives market,
- No direct involvement in market structure to shift undue risk to Central Bank or Debt Management Office.

Countries in the world have varied experience in developing secondary Market of the Securities. India and Malaysia developed discount Houses to increase trading volume and to establish bond market. Jamaica, Iceland, Thailand, Malaysia, Nepal have instituted Secondary Market window as transitional arrangement. Bank of England operated secondary market window for gilt edged indexed linked instruments to encourage the market. In Germany the Bundesbank of Germany participates in the market on 8 regional exchanges for buying and selling securities to reduce price volatility in secondary market trading. In Poland, the National Bank of Poland provides an inter-dealer brokerage system for Central Bank Bills and T-bills.

In Pakistan, the PDs are the main players of the secondary market as by regulations they have to be the price makers. During 2006 PDs share in PIB secondary market trading was 93.18% and in MTBs it was 77.39%. However, overall secondary market volume remained thin due to non supply of PIBs. The situation can only improve if GOP remains committed to keep consistent supply of the instrument.

Secondly, to improve secondary market trading of the bonds Central Bank needs to establish a bond trading desk at its Treasury for its market interventions.

Year	**PIB outstanding (Rs in billion)**	**Turnover (Rs in billion)**	**Annual Turnover ratio**
2004-05	307.598	110,704.000	.35
2005-06	303.867	24,768.000	.07

Recommendations:

- To promote Repo and Money Markets,
- To promote prudent regulations governing trading practices,
- To promote system of market makers,
- To promote the emergence of inter-dealer brokerage and organized trading facilities,
- To eliminate taxes impeding securities transactions,
- To develop automated trading systems to encourage access by onshore and offshore investors (Connections to Euro clear, Bloomberg, Swift, Clear stream, CDC),
- To evaluate alternatives for gradually introducing trading in derivative instruments as well as the preferred venue (Exchange or OTC),
- To promote development of trading culture in the market through professional associations, Primary Dealers, entry of foreign institutions.

3.7. Settlement Infrastructure

Seventh area required for the development of fixed income bond market is to have dependable settlement infrastructure in the country.

Prerequisites of this area are:

- Automated (Dematerialized) Securities Accounts,
- Reliable Custody arrangements for recording of Securities ownership,
- Delivery versus Payment System,
- Integration of well established international depositories like EUROCLEAR or CLEARSTREAM or others with Countries Depository Systems for allowing non residents to invest in domestic securities,
- Installation of Real Time Gross Settlement System for fund transfer.

Without an adequate securities settlement infrastructure there can be considerable systemic risk. Failure of one party to a large securities transaction can lead to a subsequent series of failures causing great loss to the market. Infrastructure includes automated (dematerialized) accounts for securities, reliable custody arrangements for the recording of securities ownership and a delivery payment allowing for same day settlement.

The major policy issue involved in developing a Securities settlement system in a particular country concerns the Central Depository, Sub Depositories and settlement procedures.

The transition from paper security to securities account can not be smooth in some countries where people are used to paper securities, so a moderate approach is required initially and doing so some issues can be allowed on partial placement in paper or in securities account. In some issues complete placement in securities account can be arranged.

Many Central Banks find it desirable to play an important role in running Government Securities. As they hold current accounts of the financial intermediaries so to link it with securities account becomes an easy job for them. However this accessibility does not prohibit any other Central Depository Organization to work as Central Depository.

Transactions at Central depository include Primary Market and Secondary Market transactions. As Secondary Markets are bilateral transactions therefore it has to correspond to the payment of cash so to match the transactions before final settlement. Real time or at the end of the day settlements are standard requirements in an efficient settlement system. Matching settlement orders should validate its authenticity by detecting orders determining the points when settlement order must become irrevocable and most importantly controlling implementation of the DVP principle and for keeping track of pending settlement cases.

Most payment systems with predefined set of participants traditionally operate on Multilateral Netting Settlement basis (MNS). Because of MNS potential problems the consensus has emerged in recent years to favour different approach for settlement. This is called Real Time Gross Settlement System (RTGS). Under this system a transaction is settled bilaterally as and on going basis and as soon as possible. Although RTGS is superior but it requires highly advanced technology.

Stock Exchange trading in Government Securities is insignificant in developed markets as thereby most of the trading takes place OTC. However in emerging markets it will be a more active niche because of their failure to set up conditions for development of OTC market. The potential advantage of trading in Stock Exchange of Government Securities is off set by inherent disadvantages from a settlement perspective.

Recommendations:

- Establish RTGS which is in process,

- To integrate with well established international depositories like EUROCLEAR or CLEARSTREAM or others with Countries Depository Systems.

3.8. Legal and Regulatory Framework

Eighth area required for the development of fixed income bond market is to have Legal and Regulatory Framework**.**

Prerequisites for this area are:

- Clear legal framework covering all contemporary requirements,
- Well defined Government borrowing authority in constitution or in legislation,
- Clearly defined rules for issuance of Securities,
- Fundamental rules concerning Market Conduct,
- Oversight Monitoring and Reporting Rules,
- Rules and Operating procedures for Payment, Clearing and Settlement Systems

Debt Securities must be supported by a clear legal framework. Government should have explicit and well defined authority to borrow. Rules for issuance of Securities should be clearly defined i.e. market access to the securities, terms of instruments and legal and regulatory framework for Primary and Secondary Market.

Market Structures and Regulations vary from country to country; however, supervision and reporting systems depend upon whether the market works as an exchange or it is dealer driven market or they are OTC markets. Most Markets are OTC or Dealer markets, so post trading report system, record keeping and audit trail requirements need to be called. In case of Exchange Market it should be licensed with reporting, record keeping, fair access, and risk management requirements. In case of alternatives trading system, it has to be ensured that regulating authorities should have access over the system.

Fundamental Rules concerning market conduct should be included in Securities Regulations. In framing these Rules consultation with Self Regulating Organizations is the right approach. The Rules and Operating procedures governing the payment and settlement system should be made public ensuring all accountability levels. Its framework should allow oversight monitoring and reporting to all concerned.

Pakistan is relying on Securities Act framed in 1944 for Government Securities business, so it does not have the capacity to legally support what is going on in the market (In plain words it does not provide complete legal base to the business). Secondly there is no room in the current Act to allow new techniques to be adopted by the Government for their borrowing needs with adjustments in cost and to the market participants for mitigating their risks and in enhancing their returns. So in Pakistan this area is to be built from scratch and then comes the Rules and Regulations for market conduct.

Recommendations:

- To establish new legal framework under changed market environment,
- To strengthen Securities supervision and enforcement,
- To strengthen SRO surveillance and Risk Management process.

3.9. Taxation Policy

Ninth area required for the development of fixed income bond market is to have well designed Tax Policy.

Prerequisites for this area are:

- Integrated approach with Tax deduction from all sources of income at one rate,
- Avoidance of deduction through withholding Tax as it distorts horizontal Tax equity. In the same way avoidance of Taxation on Capital gains as it induces investors to go for bond washing,
- Clearly defined dual personality of Repos in Legal, Fiscal and Accounting systems for establishment of effective Repo Market,
- Avoidance of Tax incentives on financial instruments to stimulate savings as they distort prices and lead to inefficient resource allocation.

Tax policy has significant impact on financial decisions of investors and firms, for instance, mutual funds and asset backed securities will have difficulty in competing against traditional substitutes without proper tax treatment. So a well developed financial system requires a well designed tax policy. Most of the OECD countries are following integrated approach where tax is deducted at all source of income at one rate, however some countries are still observing Tax deduction at compartmentalized level. The last approach is becoming obsolete day by day. Withholding Tax is one way of generating revenue through deduction of Tax on interest earnings. It is easy to generate revenues through this way, however it has other shortcomings as it distort horizontal tax equity or it can not be easily applicable on products like derivatives.

Tax policy for Government Securities has now been rationalized in the Finance Bill 2006 and currently on all securities they are 10% as with holding tax. Previously for short term and long term instruments they were different. For non residents there is no separate exemption. This would be a point to be decided when IFC or ADB may come to Pakistan for the flotation of their supranational bonds which are essential for creating liquidity in the bond market.

Recommendations:

- Adopt tax policies that tax earnings are at comparable rates than other taxable income sources,
- Same tax treatments for Federal/Provincial/Local/Corporate Bonds,
- Eliminate securities transaction taxes.

3.10. Linkages of Sub national/Private Sector Bonds with Government Bond Market

Tenth area required for the development of bond market is to have linkages between Sub National /Private Sector Bonds with Government Bonds Market.

Prerequisites for this area are:

- Resolution of Agency and Moral Hazard problems by developing Provincial Governments/Local Governments budgeting, accounting and auditing frameworks,
- Well established relationship between Sub national/ Private Sector bond markets with National bond market,
- Regulatory, Supervisory, Legal and Tax framework should correspond to the Regulations pertaining to initial issuance and continuing disclosure and settlement applicable to Private Sector Securities as Sub National fixed income bond market has to compete with Private Sector Securities Market,
- Credit Rating Systems,
- Bankruptcy Laws for developing corporate bond market.

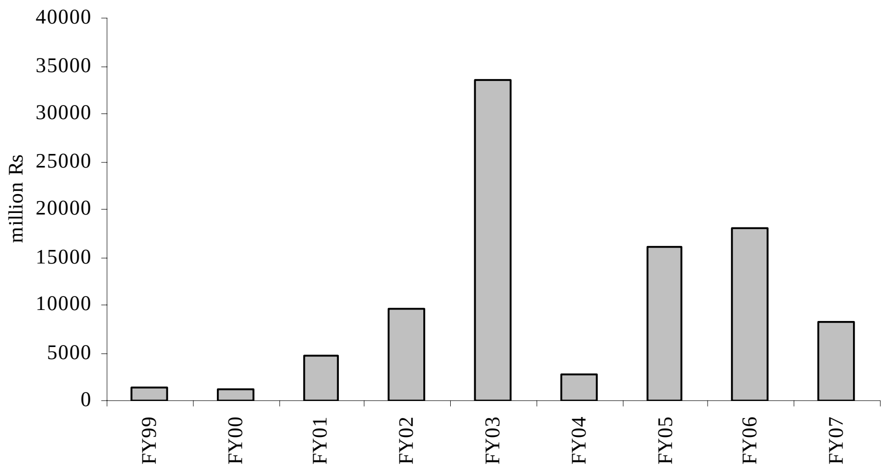
Efficient and well regulated sub national bond markets are essential for financing local infrastructure investments. Agency problem arises when provincial/local government financial entities are often able to take actions that have consequence for national government like problem of moral hazard or adverse borrower selection. Moral hazard is the major concern as if not explicitly provided than still the national government is considered implied guarantor of provincial/ local government obligations. Fundamental constraints in developing provincial/local govt. bond market is the weakness of their budgeting, accounting and auditing framework undermining the quality and reliability of information available to the provincial/local government bond markets. Relationship between provincial/local govt. and national govt. bond market is very important as the govt. securities market is the foundation of other components of the debt market. However if well managed the provincial/local govt. bond market can be developed independent of national bond market. Regulatory, supervisory, legal and tax framework should correspond to the regulations pertaining to corporate bond market as provincial/local govt. bond markets have to compete with corporate bond market.

Benefits of Private Sector Bond Market are enormous as the issuance to debt security of Private sector help the sector to contribute towards economic development through more efficient re allocation of capital. The volume of Corporate Bond Market varies from Country to country. Even in developing countries they are fledging and small. Issues in developing private bond market are their linkages with Government Bond Market, Government securities as benchmark issue, dealer community and investor baser, disclosure system, Credit Rating Systems and information.

Currently there exists no sub national Bond market in the country. Prior to 1990 when Financial Sector reforms were initiated, Provincial Governments used to borrow from the markets through tap instruments, however with the introduction of auction system the facility of borrowing from the market have now mainly confined to the Federal Government.

The foundation of the corporate bond market was laid in 1995 with first issue of Term Finance Certificate. Since then issuance of listed TFC’s has totaled approximately PKR 67 billion. The corporate bond market in Pakistan has been much more vibrant over the 2001-2005 periods adding approximately PKR 65 billion in issuance or 98% of total issuance to date.

Figure 5. Value of TFCs Issued



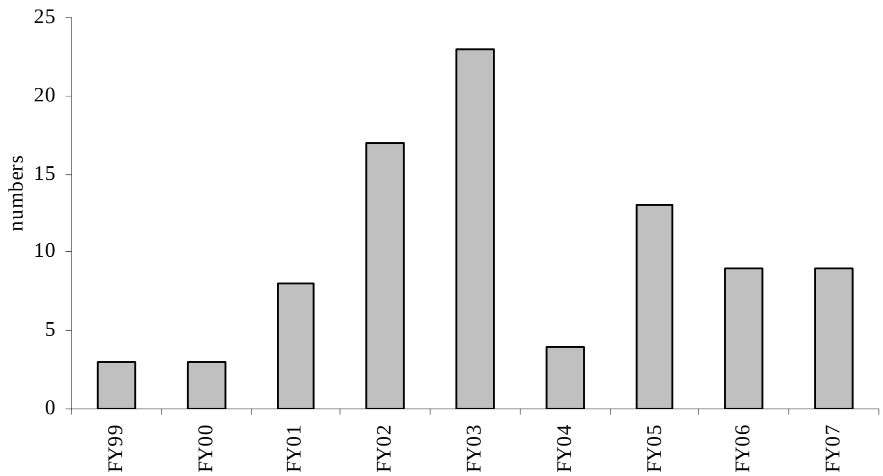
A combination of factors resulted in the issuance boom in the past five years. Amongst these were de-regulation of the banking sector, lower interest rates, availability of benchmarks for both fixed and floating rate debt, active inter-bank trading markets in government securities, coming of age for mutual funds, etc.

The corporate bond market in Pakistan is smaller in comparison to many equivalent rated economies although the situation is improving.

Issuance, after picking up pace in 2001 to 2003 slowed significantly in terms of number of instruments during 2004. This may partially be owed to the monumental increases in interest rate benchmarks during 2004. The reduction in interest rate volatility during 2005 brought life back into issuers. Issuers appear less perturbed by higher rates than by volatility. Hence 2005 remained a good year in terms of number of issues and volume of issuance.

An encouraging indicator of Pakistan's corporate debt market is the relatively broad spectrum of issuers. Since the inception of TFCs issuers have hailed from a wide range of industrial classifications including leasing companies, sugar manufacturers, textile mills, chemical manufacturers, synthetic fibre manufacturers, refineries, cement manufacturers, commercial banks, investment banks, telecommunications firms, gas companies, and pharma companies etc. The breadth of issuers coupled with the economic growth that Pakistan has witnessed

Figure 6. Number of TFCs Issued



in most of the above industries bodes well for the future of the corporate debt market.

Investors in corporate debt have also been of diverse backgrounds. The largest volume of investment typically comes from the financial sector including players such as commercial banks, investment banks, mutual funds, and insurance companies. Some interest is now being seen from large public sector funds and government entities. Also included in the investor base are employee provident, gratuity, and pension funds. Charities and trusts also invest from time to time. Individuals remain a very small category although it is hoped that this segment will grow as time passes.

One of the more encouraging developments in the Pakistani corporate debt market has been the innovation in the structure of the instruments. Over the years a number of features have been introduced in the structure of debt instruments in Pakistan and the features have been successful in making corporate bonds more marketable to investors while retaining benefits for issuers.

Some noteworthy features have been the introduction of call and put options, floating coupons, caps and floors, conversion options, perpetuity etc. The introduction of these features has made investments in TFCs an easier decision than before. Investors are now more easily able to pick and choose the instruments more suited to their cash flow requirements and interest rate outlook.

The local derivatives market is yet to find a sure footing. Once interest rate and credit derivatives become regularly traded products we can be sure of seeing a lot more innovation in the structure of corporate debt.

Credit rating agencies have played a key role in furthering the development of Pakistan's corporate debt market. With rating being a requirement for listed debt, investors now have the comfort that the credit risk of the issuer has been evaluated by professional rating agencies and are better able to gauge the risk-return combination of corporate debt.

The introduction of the central depository system has made it much more convenient for investors to hold corporate debt than was previously possible. The electronic custody system has made it easier for issuers to relay payments to holders while giving holders the benefit of safe and secure electronic storage. The depository system also makes it easier to trade corporate debt securities in the secondary market and to obtain funding against them.

The Islamic Instruments market is an addition in the architecture of Fixed Income Market in Pakistan. The growth is immense but still it requires sovereign instruments for benchmarking that needs to be innovated under local environment. Very few instruments and that too are available in quasi national market. Further there is also a need of developing Mortgage instrument/Infrastructure Bond Market in Pakistan. Constraints at the moment is lack of expertise on part of financial institutions to deal in this segment and the absence of critical mass in the market (size of mortgages with the banks at the moment are less than Rs 10 billion). However this is a growing area for the future.

Recommendations:

- Define proper incentive framework for govt. securities issuing activities at sub national level and for public sector entities,
- Promote common infrastructure,
- Develop non general obligation bonds at sub national level (revenue securitization, project linked bonds),
- To streamline procedure for public issuance,
- Abolish restrictions on product design,
- Allow underwriting eligibility for new entrants,
- Eliminate transaction taxes,
- Develop credit information infrastructure.

3.11. Sequencing of Development

Eleventh area required for the development of fixed income bond market is to have developments in well sequenced manner.

Prerequisites for this area are:

- Short term end of the market to be developed first,
- Next is to move from short term to long term security,
- Indexed related securities come in the last,
- Introduction of foreign investors/foreign banks can be considered at any stage to enhance the level of expertise and level of risk management tools.

Sequencing steps depend on the size of economy, level of competition and sophistication of financial sector, different types of investors in the country and their appetite for fixed income financial instruments. Emphasis should be given to development of primary market and secondary market along with development of short term to long term securities. Frequent problem at the level of market development includes unrealistic expectations as to the pricing of long term bonds until credibility has been attained, govt. will have to pay premium on its borrowings.

4. Conclusion

The development of debt markets starts with increasing the depth in money and securities market as this improves the transmission channel of monetary policy through indirect instruments that help in developing various segments of Money Market as well as Foreign Exchange Market.

In Pakistan overwhelming part of the overall debt market in terms of outstanding securities and trading volumes is confined to Government Securities. While providing benchmark rates to the financial markets, SBP also uses part of its short term instruments for Open Market Operations. The maturity period of Government Bonds in Pakistan goes up to 20 years with average maturity being around 7 years.

The emphasis of State Bank of Pakistan has always been to build up institutional and market microstructure for developing Government securities market in Pakistan. Primary Dealer System was instituted in 2000 adapting it with Pakistan's situation; and currently the system is playing an important role in absorption of Government Securities and providing two way quotes in the market. The PDs have bidding commitments and success ratios specifications in the long term securities and T. Bill market. Short selling in long term securities is also available before each auction to gauge the market anticipated price of these securities.

However, in spite of these initiatives the growth in the Government Securities Market has not been adequately reflected in the depth of the market. The reason being the fact that the main investors continue to be the Commercial Banks with less participation by the Insurance Companies/Funds/Other Corporates. Retail segment has remained almost non existent and have not been adequately developed. Though Non-competitive bidding option was extended in long term securities in 2005 to facilitate this segment but it was not much helpful since the instruments offered through auction are in scripless form and majority of Retail investors are not used to dealing in such instruments. Obviously Retail Segment in Pakistan is heavily dependent on NSS that are on tap and is costly to run due to large branch network. This impedes liquidity in the bond market that needs to be addressed by creating awareness regarding benefits of Fixed Income Investments trading through market based arrangements (*Recently Government has reverted back by allowing institutional investors to access NSS that is against Financial Sector Reforms initiated in 1990 to eradicate financial repression. Efforts seem to be to attract non bank borrowing through this channel but overall it is going to have negative impact on efforts to develop Capital Market in Pakistan. In nutshell such steps need to be avoided in future*). Secondly, need of keeping consistent supply of long term Government instruments require proper consideration by the Government to create ample liquidity in the bond market. For this Debt Management Framework at MOF needs to be strengthened. Public Debt Coordination Office already instituted at MOF under Fiscal Responsibility and Debt limitation Act 2005 would have to play its due role after achieving its capacity building process. This would pave way for separating Debt Management from Monetary Management in future and would also be instrumental in reducing Government reliance on direct borrowing from the Central Bank that creates inflationary pressure.

A well functioning MM is critical for the development of debt market, since it prices liquidity through an interbank yield curve. The main impediment in achieving well functioning MM in developing countries like Pakistan lies on the reality that Central Bank in these countries do not to have clear projections on market liquidity status due to loose coordination between MOF and SBP on Government flows that makes the major component of liquidity flows in these countries. Therefore, to arrest market volatility, close coordination between MOF and Central Bank always remains priority area on Central Banks agenda in developing countries.

Going forward the challenges for bond market development in Pakistan, no doubt lies in creating liquidity in the first place, but is also dependent on availability of timely market information to the issuers as well to investors and diversifying the investor base. For this, Government as well Market Regulators have to work together by taking appropriate steps. The steps include development of Asset Management Firms/Mutual Funds/Discount Houses to diversify investor base and by strengthening mechanism for the dissemination of market data.

This is not surprising that US and European Union share major part of the Bond markets and as per recent data their share is above 90% of the total Bond Markets all over the world. The reason of this edge lays only in efficiency of their Financial Markets. Obviously this stage has not been achieved overnight but realization of this fact makes the task to adjust the targets for developing segment of bond Market in any jurisdiction easier.

From Capital Market perspective, Corporate Bond Market should have an overriding edge over Government Bond Market to facilitate other than Government Sectors to access funds for their business activities. Achieving this objective would obviously result in containing crowding-out factor and in reducing inflationary pressure. However, a glance over various jurisdictions reveals that mostly the situation as such does not exist in any part of the world. Countries like Malaysia, Korea and Australia who have more vibrant Corporate Bond Markets than Government Bonds Markets has achieved this by targeting different investor classes thus creating demand and by developing proper infrastructure to support development of this segment of the market. For example in Malaysia the focus is now on developing Market of Shariah Compliant instruments to meet the growing appetite of Islamic Fund Industry that has cropped up recently and are fostering the main demand.

The size of Corporate Bonds in Pakistan (TFCs) is very small, however if its future development is aligned with National/local Governments/Public Sector requirements than it becomes the area to be reckoned with since the appetite for infrastructure finance is huge in Pakistan. Nevertheless, the market can not grow without removing impediments like reducing fees/Stamp duties to make TFCs cost effective. At the same time, Legislative/Administrative steps are also required to support this growth. Newly emerged Islamic Instruments market is also going to give new dimension to this growth as they provide an alternate to the investors who by faith prefer to invest in these instruments. But to foster its growth Government/Regulators have to be careful about their quality and yield structure to avoid any segmentation.

Another area which has not been allowed is the introduction of Supranational Bonds in Pakistan that would certainly provide liquidity along with introducing the best international practices to the Domestic Corporate Bond Market. This would also attract non-resident investors that have not shown any interest in domestic bond market in Pakistan though mechanism exists for their entry/exit. To attract NRIs many emerging market economies have provided them opportunity to have positive yields by extending some concessions like tax exemptions. Pakistan can also follow this suit; but before making any decision its benefits need to be weighed since on one hand it would attract portfolio investment while on the other hand it would distort domestic market bond market by creating uneven level playing field for the resident and non-resident investors. Further, it can also spur capital flight with loss in revenue. So before allowing such concessions they need to be weighed at various time points.

Finally, on growth of Fixed Income Market in Pakistan, one can say with finality that by creating prerequisites for the development of this segment and with proper support of the Government as well Regulators (Central Bank and Securities Commission) this segment would gain its rightful place in the financial market arena of Pakistan very soon.