7 STABILITY ASSESSMENT OF FINANCIAL MARKETS

The robustness of any financial system depends on the ability of the major participants, generally banks, to meet their obligations when they fall due. One of the primary concerns of any central bank is to ensure that market liquidity is at optimal levels – at both the aggregate and individual bank level. In this context, the development of strong, deep and broad-based financial markets, as another important constituent of the financial system, is vital for its smooth functioning. The role of vibrant and efficient financial markets has in particular been highlighted in the aftermath of the turbulence and dislocation of credit markets around the world. This episode of global turbulence represents the first real test of the complex nature of structured finance instruments being traded in these markets.

The challenges faced by financial markets in Pakistan during FY09, carried over from the latter part of FY08, were somewhat different from those experienced by other countries during the global financial crisis. Domestic markets remained largely immune to the financial stress faced by advanced economies, mainly due to the limited international exposure and integration of the domestic financial markets, and sparse use of innovative and complex derivative products. The sources of liquidity stress in the domestic financial markets during FY09 instead emerged from the country's emergent weaknesses in macroeconomic fundamentals.

Financial markets in Pakistan experienced various episodes of liquidity stress during FY09. The year started with the build-up of liquidity pressures in the money market which reached its peak during October-November FY09. This stress was fueled by the less than prudent asset allocation of money market mutual funds in illiquid instruments. Moreover, maturity mismatches in the asset-liability portfolios of some Non-Bank financial institutions and to some extent, rumor mongering about the financial position of some banks, led to instances of substantial deposit withdrawals from some banks. However, due to the timely actions taken by SBP, which entailed the adjustment of reserve ratios, liquidity injections or mop ups were largely successful in restoring market confidence. Consequently, banks' liquidity position remained generally comfortable during the rest of the year, with few sporadic episodes of liquidity stress during the last quarter of FY09.

In view of this brief background, this chapter assesses the functioning and stability of financial markets in Pakistan.

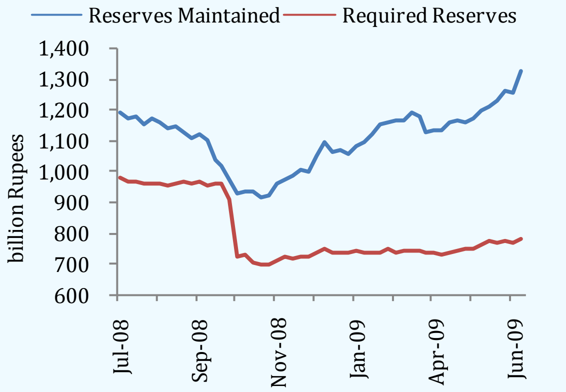
7.1 Money Market

An efficient money market provides a mechanism for meeting the short-term liquidity needs of the lenders and borrowers and facilitates financial intermediation at efficient transactional costs without undue delays. The money market also provides an instant response to the central bank's policy actions for influencing liquidity and short-term interest rates in the economy.

Due to inflationary pressures emanating from the surge in international commodity prices and persistent rise in aggregate demand pressures, SBP continued with its monetary tightening stance during the first two quarters of FY09. However, with the subsequent decline in international commodity prices, inflationary pressures eased off in the latter part of the financial year. As a result, CPI inflation started to decline from March FY09 onwards, and SBP lowered its discount rate by 100 bps in April FY09: the first rate cut since the advent of monetary tightening in April FY05. Notably, prior to reversing the stance in April FY09, the discount rate was raised twice; first by 100 bps and then by 200 bps to reach 15.0 percent in November FY09. CRR and SLR requirements which were increased in May FY08, on the other hand, were reduced during the first half of FY09 to help banks in overcoming temporary liquidity strains during October – November FY09.[1]

Dynamics of liquidity during the year were driven by various factors which changed course as the year progressed. The liquidity situation remained under stress during the last quarter of FY08 and for most of H1-FY09. The already strained liquidity position was further aggravated by the imprudent asset allocation in illiquid instruments by non-banking financial institutions, and maturity mismatches in their asset-liability portfolios. Rumors about the instability of some small-sized domestic banks added to the uncertainty. Symptoms of liquidity stress were also observed in the reduction in surplus liquidity invested in liquid sovereign securities held by banks with SBP over and above the required statutory reserve requirements **(Figure 7.1)** and increase in call rates **(Table 7.1)**, both in Q2-FY09.

Figure 7.1: Statuary Reserves with SBP



Source: SBP

Table 7.1: Month-wise Call Rates-FY09

percent per annum

Month	High	Low	Wtd. Avg.
Jul-08	17.00	0.75	11.66
Aug-08	21.00	2.00	12.92
Sep-08	24.00	2.50	15.85
Oct-08	45.00	3.00	19.01
Nov-08	24.00	1.00	12.79
Dec-08	21.00	0.30	10.58
Jan-09	24.00	0.50	12.07
Feb-09	17.50	2.00	11.57
Mar-09	15.90	5.00	12.88
Apr-09	16.00	3.00	12.35
May-09	14.25	1.00	12.57
Jun-09	15.00	1.00	11.44

Source: SBP

Table 7.2: Monetary Indicators

billion Rupees

	Flow	
	FY08	FY09P
M2	623.9	448.1
NFA	-317.4	-150.2
SBP	-308.0	-155.8
Scheduled Banks	-9.4	5.6
NDA	941.4	598.2
Net Government Borrowing	583.8	524.0
For Budgetary Support	554.5	316.4
SBP	688.7	130.9
Scheduled Banks	-134.2	185.5
Commodity Operations	28.7	209.0
Non-Government Sector	441.7	171.9
Private Sector	408.4	18.9
Credit to PSEs	33.1	152.6
OIN	-84.1	-97.6

Source: SBP Database
P : Provisional

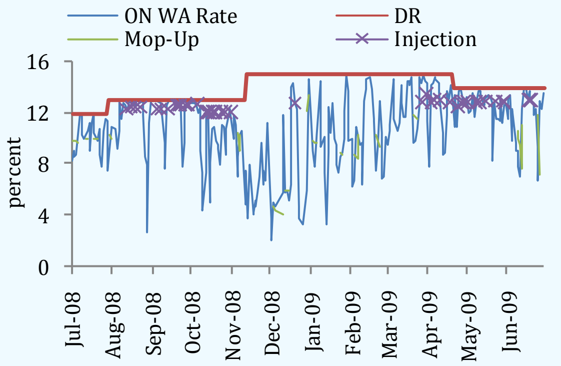
SBP took various timely actions to restore market confidence by injecting permanent liquidity of around Rs. 270.0 billion by reducing CRR by 400 bps on demand liabilities, and eliminating the 19.0 percent SLR requirement on time liabilities (of one year and higher tenor) during October–November FY09. The central bank also allowed the use of securities classified under the "Held to Maturity" category for accessing temporary liquidity through the SBP 3-day Repo facility. The weighted average O/N Repo Rate was intentionally kept low during Q2-FY09 so as to dilute some of the liquidity concerns. Developments in the external sector were also not that conducive and resulted in drainage of rupee liquidity from the banking system of Rs 291.9 billion during H1-FY09 **(Table 7.2)** as reflected in the contraction of NFA, though of a relatively lesser degree in comparison with FY08.[2] Additionally, persistent and strong demand for credit from both the Public Sector Enterprises (PSEs) and the private sector further tightened the liquidity position in H1-FY09. Credit requirement of PSEs increased enormously (by Rs 61.3 billion during H1-FY09 as

[1] Details in section 4.3.4 in Chapter 4, Stability of the Banking System, in this edition of the FSR.
[2] Most of this contraction pertains to H1-FY09.

against Rs. 7.0 billion during H1-FY08) to tackle the circular debt issue among the PSEs and the oil companies. Demand for credit from the private sector also increased (Rs 203.1 billion during H1- FY09 as opposed to an expansion of only Rs 18.9 billion for all of FY09), an indication of persistent aggregate demand pressures in the economy.

Another cause of liquidity concern during Q1-FY09 came from market expectations regarding the issuance of Government Commercial Paper (GCP), which the Ministry of Finance was planning to issue in FY09, however the plan was later shelved. As mentioned earlier, heavy withdrawal of cash from banks added to the pressure on market liquidity during H1-FY09. There was a reduction of Rs.39.9 billion in total banking deposits and an increase of Rs. 474.2 billion in currency-in-circulation during the first half of the financial year, with subsequent challenges for liquidity management (**Figure 7.2**).

Figure 7.2: SBP Interventions vs. Weighted Average Overnight Repo Rate Movement - FY09



Source: SBP

Table 7.3: OMO Conducted

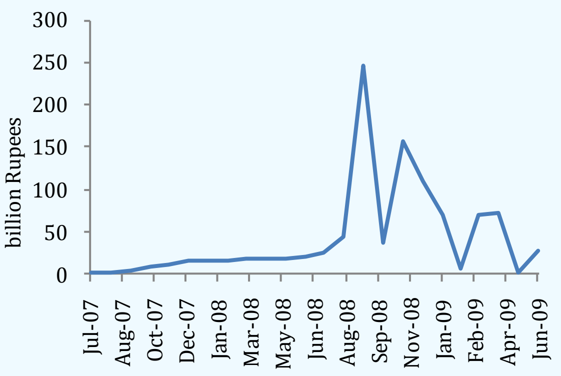
billion Rupees

		H1-FY08	H2-FY08	H1-FY09	H2-FY09
Mop-Ups	Frequency	38	33	36	35
	Volume	633.0	508.6	709.1	543.1
Injections	Frequency	1	11	24	19
	Volume	40.9	191.4	492.6	741.5
Outright	Frequency	2	6	7	0
	Volume	2.0	42.0	111.2	0

Source: SBP

SBP closely monitored these developments and took immediate steps to release the desired level of liquidity to the market through the various monetary tools at its disposal. For example: (i) using OMOs, SBP injected Rs.492.6 billion during H1 and Rs.739.5 billion during H2-FY09 **(Table7.3)**, (ii) banks were allowed easy access to the discount window during the year, due to which they availed Rs. 874.5 billion using this facility for liquidity management purposes (**Figure 7.3)**, (iii) SBP reduced CRR by 400 bps over October-November FY09 (4) SLR was completely abolished for time liabilities of one year and higher tenor (**Table 7.4**).

Figure 7.3: Trend in Discount Window Facility



Source: SBP

7.1.1 Interest Rate Dynamics

The continued reliance of the government on SBP to finance part of it budget deficit created complications for monetary management, particularly in H1-FY09. The government had to borrow from SBP due to the non-realization of the desired external inflows and NSS borrowings during the first half of FY09. The growing stock of MRTBs (Rs. 1.4 trillion in

Table 7.4 : Phases of Monetary Stance in FY09 and FY10

	Policy Rate		Cash Reserve Requirements				Statutory Liquidity Requirements			
	Rate	Change (bps)	Time Liabilities	Change (bps)	Demand Liabilities	Change (bps)	Time Liabilities	Change (bps)	Demand Liabilities	Change (bps)
FY09- w.e.f.										
30-Jul-08	13.0	+100	-	-	-	-	-	-	-	-
18-Oct-08	-	-	-	-	6	-300	0	-1900	-	-
1-Nov-08	-	-	-	-	5	-100	-	-	-	-
15-Nov-08	15.0	+200	-	-	-	-	-	-	-	-
21-Apr-09	14.0	-100	-	-	-	-	-	-	-	-
FY10- w.e.f.										
17-Aug-09	13.0	-100	-	-	-	-	-	-	-	-

Note : CRR is on weekly average basis, subject to a daily minimum requirement
CRR includes demand liabilities and time liabilities with tenors less than one year
Time Liabilities (including Time Deposit with tenor of 1 year and above) will not require any Cash Reserve.

December FY09) and banks' bidding behavior in the T-bill auctions during H1-FY09 resulted in abnormal volatility in the overnight (O/N) interest rate (**Table 7.5 a & b**). Uncertainty emanating from high volatility in the O/N rates is usually transmitted to other market interest rates, which hampers market liquidity as well as the monetary transmission mechanism.

Table 7.5a: Weekly Weighted Average O/N Repo Rate - FY09

	Qtr 1	Qtr 2	Qtr 3	Qtr 4	YTD
W.A. O/N Repo Rate	11.3	8.8	11.2	12.5	11.0
Standard Deviation	1.6	2.2	1.6	1.3	2.0
Coefficient of Variation	14.0	25.0	14.0	11.0	19.0

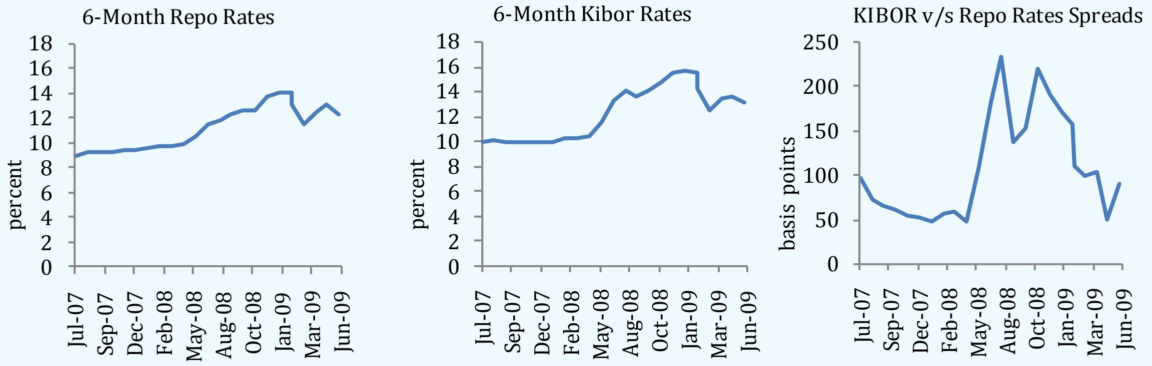
Table 7.5b: Weekly Weighted Average O/N Repo Rate - FY10 (up to Oct 23, 2009)

	Jul-09	Aug-09	Sep-09	Oct-09	YTD
W.A. O/N Repo Rate	12.1	12.4	12.0	12.6	12.3
Standard Deviation	1.1	0.6	0.4	0.1	0.7
Coefficient of Variation	9.0	5.0	3.0	1.0	6.0

Source: SBP

KIBOR for various tenors started its upward movement from the beginning of August FY09 (**Figure 7.4**) and reached its peak levels in Q2-FY09. For instance, 3-month KIBOR oscillated between 15.0 - 15.5 percent during November-December FY09. Similarly, 6-month KIBOR reached its peak level of 15.76 percent on November 11, FY09 and hovered around that level until the end of H1-FY09. The results of liquidity management measures taken by SBP (as discussed above) became visible as the 6-month KIBOR started to decline considerably from the beginning of H2-FY09. Since the start of FY10, KIBOR for various tenors has shown relative stability.

Figure 7.4: Money Market and Retail Interest Rates



Source SBP

Effective 17th August FY09, the central bank has adopted a new framework for its monetary operations by introducing a corridor for the money market overnight repo rate. This measure is aimed at enhancing the effectiveness of market signaling, improving liquidity management, and fostering stability and transparency in money market operations. Banks now have regular access to this facility to manage their short-term liquidity needs. The new framework has also reduced volatility in short-term interest rates. The corridor is expected to strengthen the first link of the monetary policy transmission mechanism i.e. the impact of changes in the policy rate on the money market overnight repo rates. The performance of the interest rate corridor system is publically disseminated on a daily basis vide the SBP Reuters Page SBPK08 and is summarized in **Table 7.6.**

Table 7.6: Access to SBP Overnight Repo/Reverse Repo FAcilities[1]

million Rupees

FY10[2]	Access Date	No. of Institutions	Amount Availed
O/N Repo Facility (Floor) (Fixed Rate Facility @ 10.0%)	23-Oct-09	2	2,800
	9-Oct-09	1	2,500
	2-Oct-09	7	6,800
	25-Sep-09	3	12,500
	24-Sep-09	2	11,500
	19-Sep-09	1	13,500
	11-Sep-09	4	7,350
	10-Sep-09	2	7,200
	9-Sep-09	2	900
	28-Aug-09	8	12,100
	21-Aug-09	9	6,550
O/N Repo Facility (Ceiling) (Fixed Rate Facility @ 13.0%)	16-Oct-09	4	8,600
	13-Oct-09	1	1,000
	30-Sep-09	13	54,250
	29-Sep-09	16	28,850
	28-Sep-09	4	5,600
	26-Sep-09	11	10,800
	18-Sep-09	1	10,800
	16-Sep-09	1	700
	4-Sep-09	1	2,800
	31-Aug-09	8	11,200

1: Explicit Floor calculated as 300bps less SBP Rev.Repo Rate
2:Up to Oct 23, 2009

Source: SBP

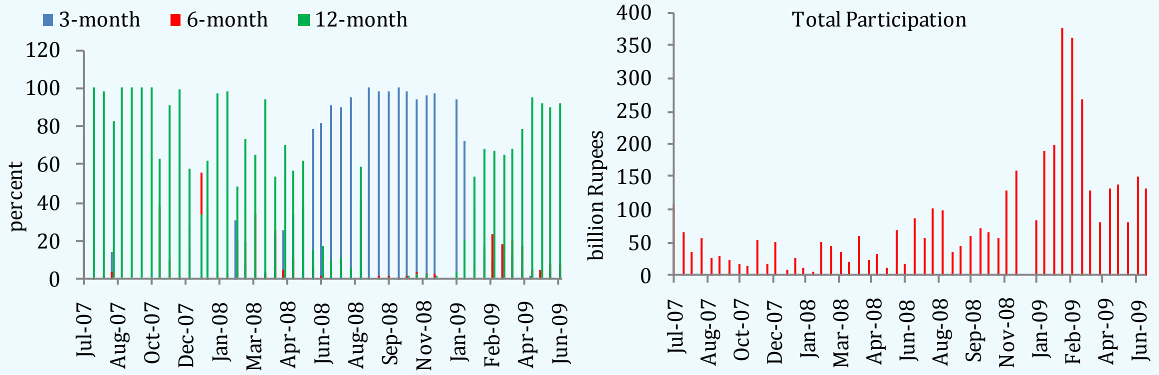
7.1.2 Primary Market

The primary market of government securities (MTBs & PIBs) serves two purposes; it helps banks to meet their regulatory reserve requirements and second, it shifts government's borrowings from the central bank – which is inflationary in nature – to the banking sector. Additionally, cut-off rates in the auctions of sovereign securities serve as benchmarks for pricing corporate debt instruments. A deep and liquid primary market also sets the foundation for a vibrant secondary market of government securities, which is of crucial importance for liquidity management by commercial banks. This section discusses activities in the primary market.

FY09 can be categorized into two distinct phases with variations in the volume of available liquidity as well as market expectations regarding short-term interest rates. In H1-FY09, the market faced liquidity constraints alongwith rising inflation. The market remained wedged to the view of an expected increase in interest rates throughout H1-FY09, and either offered smaller amounts for 6-month and 12-month tenor instruments or did not participate at all in these tenors in some auctions. Only the 3-month MTBs were actively subscribed during H1-FY09. It was only after the decline in inflation since March FY09, that the market reviewed its interest rate expectations. Since then, banks started bidding for all tenors in MTBs, with higher concentration in the 12-months tenor.

Subsequent to the reduction in the discount rate by 100 bps on April 21, FY09, banks aggressively bid for the 12-month tenor in anticipation of a further decrease in interest rates. Banks' participation in MTB auctions improved in the latter part of FY09, as against the pattern observed in the corresponding period in FY08. Improvement in inter-bank liquidity as a result of SBP measures and decline in the demand for private sector credit led to higher participation (in terms of amount offered) by banks in MTB and PIB auctions during H2-FY09 (**Figure 7.5 and Table 7.7).**

Figure 7.5: Participation in Treasury Bill Auctions



Source: DMMD SBP

Table 7.7: MTB Auction Synopsis

million Rupees

Quarter	Auctions Held	Maturity	Announced Target	Amount Offered	Amount Accepted	Acceptance (%) of Target	Bid Cover Ratio
Q1-FY09	7	397,239	430,000	430,279	297,612	69.2	1.00
Q2-FY09	6	395,193	500,000	660,386	502,419	100.5	1.32
Q3-FY09	7	517,775	565,000	1,526,430	684,177	121.1	2.70
Q4-FY09	6	250,537	350,000	713,129	380,847	108.8	2.04
Full FY09	26	1,560,744	1,845,000	3,330,224	1,865,055	101.1	1.80
Q1-FY10	6	180,781	325,000	775,881	367,876	113.2	2.39
Q2-FY10	02	25,100	55,000	142,471	48,448	88.1%	2.59
FY10*	08	205,881	380,000	918,352	416,324	109.6%	2.42

Upto October 21, 2009

Notably, SBP increased the ratio of non-competitive bids from 10 percent to 15 percent w.e.f. June 6, FY09.[3] This measure is aimed at encouraging non-bank financial institutions and individuals to directly invest funds in government securities, thus broadening their distribution base which ultimately would translate into pressure on banks for mobilizing funds through deposits. It is encouraging to note that the share of the non-bank sector in the total holding of GoP securities has increased since then (**Table 7.8 & 7.9**). It is expected that this trend would continue in the future as well.

Table 7.8: Domestic Sovereign Securities Distribution (outstanding stock)

percent

	Investors	MTBs	PIBs	GIS*	Total
30-Jun-08	Scheduled Banks	90.5	40.8	0.0	69.9
	Non-Banks/Corporate	9.5	59.2	0.0	30.1
31-Dec-08	Scheduled Banks	94.2	40.2	96.2	73.1
	Non-Banks/Corporate	5.8	59.8	3.8	26.9
30-Jun-09	Scheduled Banks	92.2	42.9	0.0	77.1
	Non-Banks/Corporate	7.8	57.1	0.0	22.9
30-Sep-09	Scheduled Banks	87.4	41.0	94.2	74.1
	Non-Banks/Corporate	12.6	59.0	5.8	25.9

Source: SBP, *Government Ijara Sukuk

Cut-off rates for MTBs were gradually increased from the start of monetary tightening in April FY05 following various increases in the discount rate. YoY inflation reached its peak in

[3] FSCD Circular No. 7 dated June 6, 2009.

August FY09 and remained above 23 percent until the end of H1-FY09. Hence cut-off rates for most of FY09 moved in line with market conditions and changes in the discount rate (**Figure 7.6**). A rising trend in cut-off rates in the first half of FY09 was evident given that SBP raised the 3-day repo rate twice during this period, first by 100 bps and then by 200 bps, with a corresponding rise in the cut-offs for various tenors. The economy started responding to SBP measures in the second half of FY09, with the implementation of the macroeconomic stabilization program with the support of the IMF SBA in November FY09. The reversal of the monetary stance prompted a decline in the cut-off rates that continued until the end of FY09.

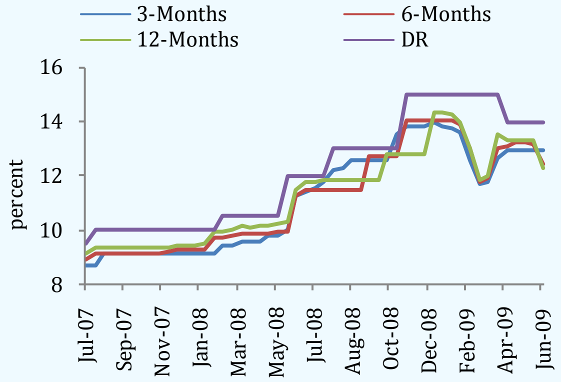
Table 7.9: NCB[1] Participation - MTBs FY10

million Rupees

Mutual Funds	6,008.3
Provident/Gratuity/Pension Funds	680.7
Other Corporate	1,199.5
Individuals	100.0
Total Face Amount	7,988.5

[1] Non-competitive Bids in Auctions, up to Oct 22, FY10
Source: SBP

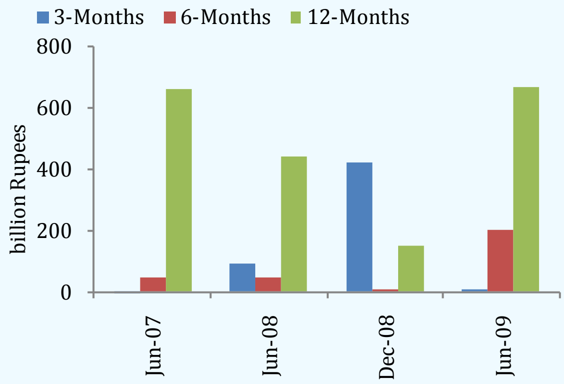
Figure 7.6: T-Bills Cut-offs



Source: SBP

MTB's distribution profile reflects the change in market perception over the course of the year, in line with inflation expectations, as discussed earlier (**Figure 7.7**).

Figure 7.7: MTB Distribution Profile



Source: SBP

After a sharp increase in government borrowings from SBP during FY08 which entailed an increase in the MRTB stock by Rs. 600 billion, the pace of borrowings continued to increase in the first half of FY09. Banks remained reluctant from offering higher amounts on the prevalent rate due to tight liquidity conditions prevalent then. However, due to better liquidity conditions in subsequent months, banks started to offer higher amounts in auctions conducted during H2-FY09. This stance enabled the government to reduce the stock of MRTBs to the desired level, as agreed with the IMF under the SBA in November FY09 (**Table 7.10**).

Table 7.10 : MTB Replenishment Data

billion Rupees

Date	Amount	Change in MRTB Stock	Excess Borrowing from the market
FY05	325	128	115
FY06	508	183	3
FY07	452	-56	242
FY08	1,052	600	-135
FY09	1,107	-55	305

Source: SBP

On other hand, the non-issuance of Pakistan Investment Bonds (PIBs) for two year (FY05 and FY06) had not only affected the primary market activities of longer tenor securities but also had a negative impact on secondary market trading. Regular primary issuance of PIBs resumed from May FY06, and amounts of Rs. 59.1 billion and Rs. 29.4 billion were accepted (net of maturity) during FY08 and FY09 respectively. Inclusion of 7-Year PIBs in the portfolio during FY09 has given a new medium term instrument to the market for better liquidity management. New issues, along with re-openings of previous issues of various maturities, have facilitated banks in managing their funds in the primary and secondary markets **(Table 7.11).**

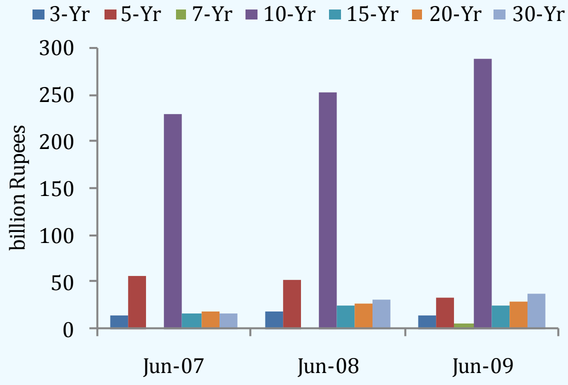
Table 7.11: PIB Auctions
billion Rupees

		3-Years	5-Years	7-Years	10-Years	15-Years	20-Years	30-Years	Total
	Matured	14.5	24.7	-	-	-	-	-	39.2
FY07	Accepted	10.9	10.2	-	30.2	9.3	11.3	16.1	87.9
	Difference	-3.7	-14.5	-	30.2	9.3	11.3	16.1	48.7
	Matured	0.1	14.4	-	-	-	-	-	14.5
FY08	Accepted	5.2	10.8	-	23.9	8.6	9.1	16.1	73.6
	Difference	5.1	-3.6	-	23.9	8.6	9.1	16.1	59.1
	Matured	14.1	27.8	-	-	-	-	-	41.9
FY09	Accepted	10.1	8.8	7.3	35.0	1.4	1.9	6.6	71.2
	Difference	-4.0	-18.9	7.3	35.0	1.4	1.9	6.6	29.4

Source: SBP

The overall size of the outstanding PIB portfolio has been increasing steadily with regular PIB issuance since May FY06. Increasing stock of outstanding PIBs depicts prudent fund management by both banks and non-banks, and shows government's preference to raise longer-tenor funds from the market. Trends in the PIB distribution profile did not show any significant change during FY09 as the 10-year PIB remained markets' preferred instrument with a cumulative investment of Rs. 290 billion (66.0 percent of the total outstanding PIBs portfolio) by end FY09 **(Figure 7.8).**

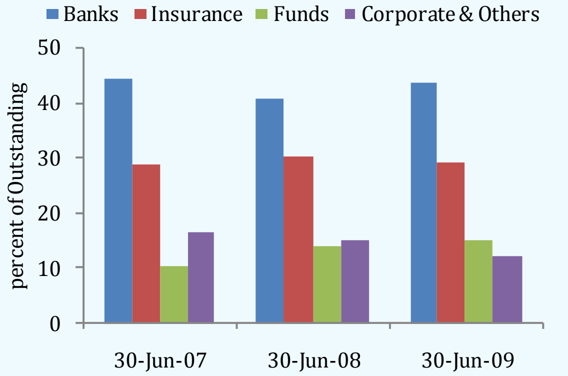
Figure 7.8: PIB Distribution Profile



Source: SBP

Notably, ample liquidity during FY07 and the earlier part of FY08 prompted banks as well as the non-banking sector to offer higher amounts in PIB auctions. However, PIB auctions remained thin during H2-FY08 and H1-FY09 primarily due to the liquidity strains during the period. However, more active participation was seen in the auction on February 19, FY09 after a pause since August 30, FY08. Trends in ownership classification changed slightly as banks regained part of their share in the outstanding PIB portfolio (**Figure 7.9**). Banks started investing in longer tenor government papers, particularly in H2-FY09, after easing of liquidity and inflationary pressures. Continued interest of the non-banking sector in the PIB primary market is also a healthy sign in that it ensures a diversified investor base.

Figure 7.9: PIB Ownership Classification

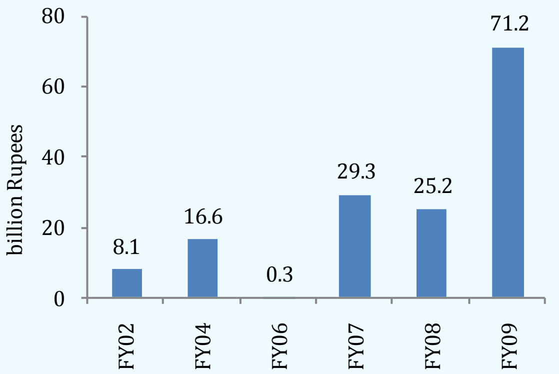


Source: SBP

The average size of PIB issues remained small from FY02 to FY06 which had a corresponding impact on the volumes in the secondary market, such that their price remained non-representative. Rates quoted in the secondary market did not reflect true market conditions during that period. However, the growing average PIB issue size since FY07 has not only ensured liquid PIB issues but has also enabled larger volumes in secondary market trading.

In FY09 four auctions were conducted, of which the first one on August 20 was a fresh issue and the remaining three issues were its re-openings. Resultantly the entire amount raised in FY09 through PIBs summed up to a substantially large-sized issue **(Figure 7.10).** This trend, if continued, would not only provide more liquidity to the secondary market but may also result for a more efficient secondary market price for PIBs in the coming years.

Fig ure 7.10: PIB Average Issue Size



Source: SBP

Another instrument in the primary market is the GoP Ijara Sukuk for which three auctions have been held since September FY09. Against the total target of Rs. 30.0 billion, aggregate bids of Rs. 38.30 billion were offered by market participants **(Table 7.12).**

7.12: Auction-wise data of GoP Ijara Sukuk

billion Rupees

	Auction Date	Issue Date	Maturity Date	Target Amount	Bid Offered	Amount Accepted	Profit Rate
GOP Ijara Sukuk - I	15-9-2008	26-09-2008	26-09-2011	10.0	9.5	6.5	Wt Avg 6M-MTB+ 45bps
GOP Ijara Sukuk – II	20-12-2008	29-12-2008	29-12-2011	10.0	7.3	6.0	Wt Avg6M-MTB + 75bps
GOP Ijara Sukuk – III	04-03-2009	11-03-2009	11-03-2012	10.0	21.4	15.3	Wt Avg 6M-MTB+ 0 bps
Total:				30.0	38.3	27.9	

Source: FSCD,SBP

7.1.3 Secondary Market of Government Securities:

While the primary market of government securities helps financial institutions in fulfilling their reserve requirements and in efficiently managing their asset-liability portfolio, the secondary market plays a vital role in facilitating liquidity management for market participants. Details of secondary market transactions are given in **Table 7.13** which shows that the repo market is the most active segment of secondary market trading.

Table 7.13: Secondary Market Trading

billion Rupees

	Volume			% of Total		
Type	FY07	FY08	FY09	FY07	FY08	FY09
Outright	753	1,402	3,624	6	8	17
Call	1,999	2,782	2,282	16	16	11
Repo	8,590	11,926	13,736	68	67	67
Clean	1,286	1,794	1,088	10	9	5
Total	12,628	17,904	20,730	-	-	-

Source: SBP

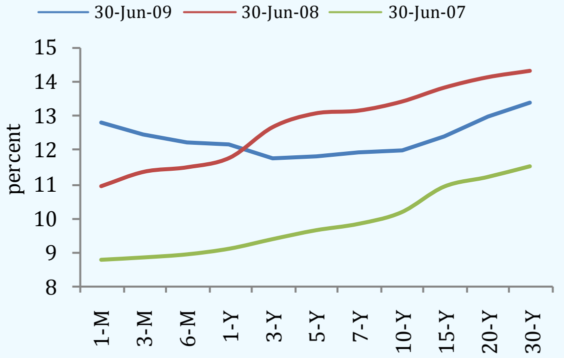
Trading in the secondary market of sovereign securities is gradually increasing. This phenomenon depicts the growing realization of treasuries/corporates to maximize their profits and manage their liquidity efficiently by utilizing excess funds for short-term gains. With the continuous supply of sovereign securities through the primary market, further deepening in secondary market activities is expected to take place.

As shown in **Figure 7.11**, the yield curve for end-June FY09 was '*U shaped*', reflecting market perceptions of declining interest rates. The upward movement for longer tenors, however, reflects the buy- and-hold behavior of the investors in long-term securities.

7.1.4 Conclusion

The functioning of the money market has gained strength over the period of assessment due to some important measures taken by the SBP in consultation with the Government. Importantly, in order to strengthen and segregate the responsibilities of debt and monetary management, a volume-based approach has been adopted to determine the auction results. With effect from February FY09, Ministry of Finance is now responsible for deciding the cut-off yields of the primary auctions of T-Bills and PIBs, while SBP continues to manage the operational aspect of the auction. Another important step has been the introduction of the explicit interest rate corridor which is aimed at enhancing transparency of monetary operations, while containing the volatility in short term interest rates. The corridor operates on the basis of standard overnight repo (floor)/ reverse repo (ceiling) facilities which set a formal corridor for the money market overnight repo rates. Both these measures have greatly facilitated the smooth functioning of the market.

Figure 7.11: Secondary Market GoP Securities Yield Curve

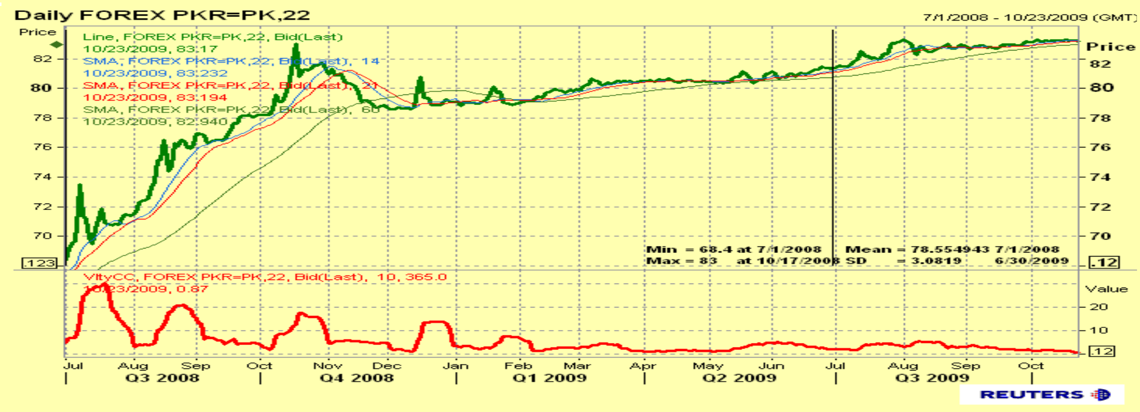


Source: SBP

7.2 Foreign Exchange Market

The challenging task of foreign exchange management in FY08 became even more difficult in the first two quarters of FY09. This was primarily due to the rapid deterioration in the country's macroeconomic fundamentals. In particular, pressures on the external current account deficit continued to mount with the rising trend in international commodity prices, and repercussions of the global financial crisis which limited Pakistan's access to international market to raise non-debt creating flows. Hence while the depreciation of the exchange rate in all of FY08 was 11.5 percent, the exchange rate depreciated by 16.3 percent in the first four months of FY09 (**Figure 7.12**).

Figure 7.12: Exchange Rate Trend



The implementation of the macroeconomic stabilization program with the support of the IMF Stand-by Arrangement (SBA) from November FY09 provided the much needed support to shore up the country's dwindling reserves position. Thus after observing a volatile period from July-November FY09, the market gradually normalized and the rest of the year witnessed only gradual weakening of the rupee with healthy volatility.

7.2.1 Exchange Rate

On an overall basis, the exchange rate averaged around 78.65/$ and average volatility was 6.7 percent in FY09. However, it is only the quarter-on-quarter trends which indicate how market behaviour evolved from excessive volatility in the first half of FY09 towards relative stability in the latter part. Quarterly exchange rate trends are illustrated in **Table 7.14**, which shows that major depreciation of 14.3 percent was observed in the first quarter. This sharp depreciation of the rupee against the USD was driven by declining capital inflows, increased outflows on account of rising imports and to some extent capital flight due to the uncertain environment prevalent during the period. All these factors resulted in pressures on FX Reserves which declined substantially. This led to increased demand for foreign exchange by importers, whereas exporters started to hold receipts in anticipation of further depreciation of the Pak rupee. Along with depreciation, volatility in the exchange rate was also the highest during Q1-FY09. The rapid depletion of foreign exchange reserves impacted the confidence in the domestic currency, led to pre-mature retirement of FX loans, and to some extent encouraged speculative activities.

Table 7.14: Exchange Rate Trends

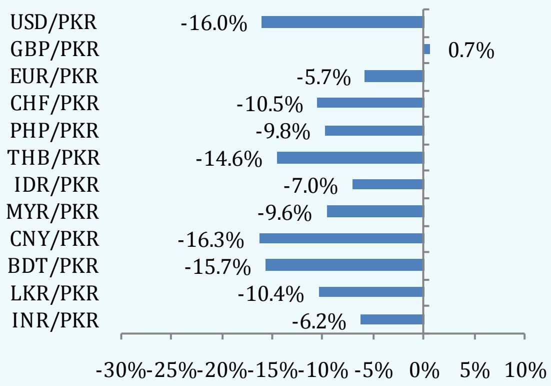
Qtrly Basis[2]	High	Low	Close	Average	Volty C/C[1] (%)	%Change
Q1-FY09	78.5	68.5	78.1	74.2	12.5	14.3
Q2-FY09	84.1	78.0	79.1	79.9	8.3	1.2
Q3-FY09	80.8	78.8	80.5	79.7	3.4	1.8
Q4-FY09	81.7	80.3	81.4	80.8	2.6	1.2
Q1-FY10	83.5	81.4	83.1	82.7	3.4	2.1
Q2-FY10	83.4	83.1	83.2	83.2	1.4	0.1

1: Reuters: Average Close-to-Close Daily volatility Last Quote PKR=PK(10, 365)

2: Upto 23 Oct FY10

Situation in the FX market improved with the advent of the IMF SBA and the Pak rupee regained some of its value, such that depreciation was only 1.2 percent in Q2-FY09. Subsequent buildup of FX Reserves also helped in improving market sentiments. PKR depreciated by only 1.8 and 1.2 percent during the last two quarters, with relatively less volatility. This stability in the exchange rate also emanated from the improvement in the current account balance, consistent increase in remittances, inflows from multilateral agencies and pledges made by friends of Pakistan.

Figure 7.13: Depreciation/Appreciation of PKR-FY09



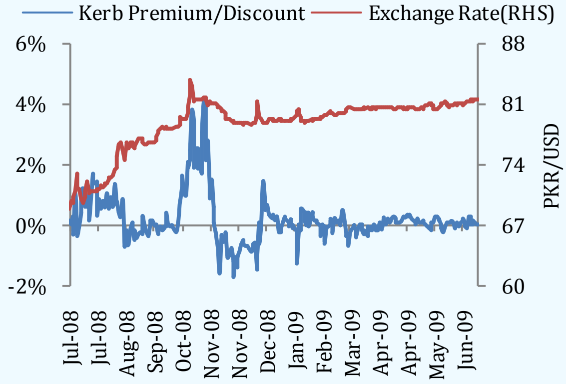
Source;SBP Database, Reuters

In addition to the USD, the Pak rupee also depreciated against most of the regional and international currencies, as shown in **Figure 7.13** except GBP, due to its depreciation against the US$. Slight appreciation of the rupee against GBP was due to the weakening of the GBP against USD in international markets.

Comparison of Exchange Rate in the InterBank and Kerb Market

In FY09, the exchange rate in the kerb (informal) foreign exchange market largely followed the same trend as in the interbank market. Deteriorating macroeconomic conditions were the main cause of the consistent depreciation of the rupee, but speculative activities in the kerb market further aggravated the situation (**Figure 7.14**). Consequently SBP took some policy measures in order to contain the volatility in the exchange rate, which included restrictions on outward remittances by exchange companies. The exchange rate differential between the interbank market and the kerb market remained narrow in most of the period in FY09, except during October FY09 when PKR traded at a premium of 4 percent vis-à-vis the US$ in the kerb market. Thereafter, exchange rate in the kerb market remained below the interbank rate during November-December FY09, while in H2-FY09, exchange rate in the kerb market remained close to the interbank market.

Figure 7.14: Exchange Rate and Kerb Premium - FY09



Source: SBP Database

7.2.2 Foreign Exchange Reserves

The declining trend in SBP's foreign exchange reserves, which started in FY08, continued in FY09 as well. Deteriorating security situation and rising international oil & food prices, slowdown in FDI, and dwindling export receipts on the back of global recession created external imbalances which resulted in a rapid depletion of the reserves in Q1-FY09.

The depleting trend of FX reserves continued until November FY09 when Pakistan signed the IMF-SBA. Pakistan's external account also started to improve due to the declining international oil prices (**Table 7.15** & **Figure 7.15**) and inflows from multilateral agencies. Subsequently, SBP's FX reserves grew consistently and reached US$ 8.55 billion at end-FY09. Reserves held by SBP are sufficient to cover the import bill[4] for 14 weeks, which is an improvement as compared to FY08 but still low when compared to other regional countries (**Table 7.16**).

Table 7.15: Daily Arabian Light Crude Closing Prices

US Dollars

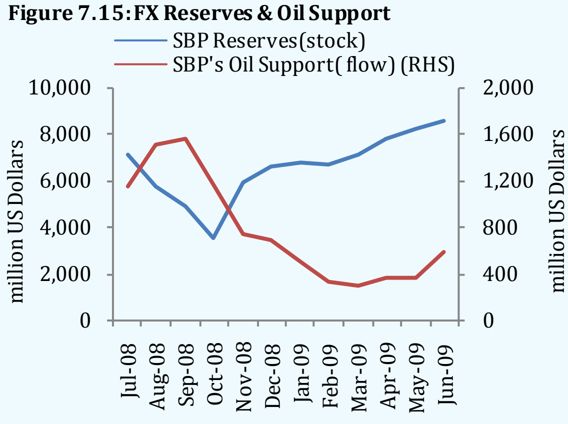
ARL-OSP-A Quote	Highest Quote	Lowest Quote	Average Daily Close	% M-o-M Change*
Jul-08	143.6	122.0	133.1	43.7
Aug-08	125.0	108.2	113.9	-14.4
Sep-08	113.3	83.6	96.4	-15.4
Oct-08	95.9	52.8	69.5	-27.9
Nov-08	62.9	40.4	49.9	-28.2
Dec-08	49.3	32.7	39.5	-20.8
Jan-09	52.1	34.8	43.4	9.6
Apr-09	53.2	46.2	50.4	18.0
May-09	65.4	50.0	58.1	15.3
Jun-09	73.7	64.8	69.6	19.9
Jul-09	72.6	60.9	66.8	-4.1
Aug-09	75.7	69.7	73.2	9.7
Sep-09	71.5	63.6	67.9	-7.3
Oct-09	79.6	66.7	72.6	6.9

*M-o-M % change in Average Daily close Prices (Up to Oct 23 2009)

Source: Reuters

Oil support facility provided by SBP was withdrawn in FY08, however in July FY09, SBP again started to provide full support for oil payments in order to contain the volatility in the exchange rate due to lumpy payments, and made payments of US$ 9.23 billion during FY09. These payments were higher in Q1-FY09 due to higher international oil prices. From February FY09, SBP partially withdrew the oil support facility and from August FY10, it has been completely withdrawn except for payments for the import of crude oil.

Figure 7.15: FX Reserves & Oil Support



Source:DMMD, SBP

[4] Based on Import bill of FY09.

Resident FE-25 deposits declined in FY09 as compared to FY08 (**Figure 7.16**). Major decline in FE-25 deposits was seen in the first five months of FY09 due to withdrawal of foreign exchange from banks by depositors, mainly due to rumor mongering about the financial health of some banks. However Pakistan's SBA with the IMF and subsequent increase in SBP reserves restored the confidence of the depositors and FE-25 deposits showed some recovery. On the other hand, due to monetary tightening and corresponding high interest rates, the demand for FE-25 loans was high in previous years. However, with substantial depreciation in the exchange rate, the demand for FE-25 loans declined in FY09, due to which the outstanding FE-25 Loans extended for trade financing declined to US$ 644 million in FY09 from US$ 1,347 million in FY08.

Table 7.16: Reserve Adequacy Ratio

	FY05	FY06	FY07	FY08	FY09
Import Coverage	26.8	22.4	25.7	12.6	14.0

*Import cover refers to number of weeks of average imports of goods

Source: SBP calculation

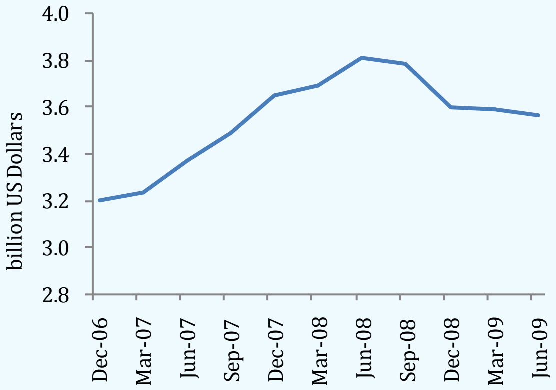
Table 7.17: Import Coverage-Regional

Number of weeks

Indonesia	25.8
Malaysia	31.5
Philippines	33.9
Thailand	36.1

Source: Respective Central Bank websites

Figure 7.16: Resident FE-25 Deposits



Source: S&DWH, SBP

7.2.3 Foreign Exchange Exposure Limit

Foreign Exchange Exposure of Authorized Dealers (ADs) has remained within the range of 24-28 percent of the overall ADs limit during FY09. Due to the bulky nature of the oil payments being made by banks from early FY09 onwards, the Foreign Exchange Exposure Limit (FEEL) of the ADs was enhanced in June FY09 to 20 percent of their paid-up capital (net of losses).[5] SBP also rationalized the process of FEEL enhancement by linking it with AD's FEEL utilization. This revision has increased market's FEEL from US$ 296 million to US$ 374 million i.e. a 27 percent increase on an overall basis. Sharp decrease in utilization at the end of FY09 is a result of enhancement of FEEL of ADs by SBP (**Figure7.17** and **Table 7.18**).

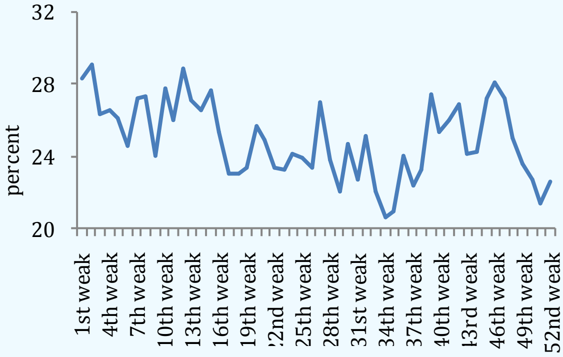
Table 7.18: History of Market FEEL Limits

Amount in millions

	Dec04	Dec05	Dec06	Dec07	Dec08	Jun09
PKR	7,579	8,683	10,120	20,143	24,006	30,450
USD	127.5	145.4	166.2	324.9	296.5	373.8

Source: FSCD

Figure 7.17: Weekly Average FEEL Utilization by ADs in FY09



Source: DMMD, SBP

7.3 Derivatives Market

Derivative transactions are efficient tools for hedging risk but if not prudently used, they have the potential to cause huge losses as has been seen during the recent global financial crisis. Due to these factors, reforms of the Over-the-counter (OTC) Derivative market under currently under debate, especially for financial institutions with cross-border exposures.

[5] FSCD Circular No. 9 dated June 10, 2009.

In view of their risk-sensitive nature, SBP only permits the use of derivative products covered under the Financial Derivatives Business Regulations (FDBR). All derivative transactions are driven by based the hedging principle i.e. the end user must have an underlying transactional or balance sheet exposure and the use of derivative products should aim to either minimize the associated risk or re-profile their risk exposure. Only those banks which have been given the status of Authorized Derivative Dealers (ADDs) by SBP can undertake derivative transactions, having fulfilled specific criteria which entail expertise in market risk, pricing, recording and accounting of the specified derivative products, and the ability to sell these sophisticated products to the end users. ADDs are allowed to run derivative related exposure only in the domestic currency; all foreign currency related exposures are required to be hedged on a back to back basis in the international markets.

Transactions which are not covered in the FDBR need exclusive approval of the SBP on a case to case basis. Prior to granting such approvals, SBP always strives to ensure the availability of a natural hedge for the transaction. Global corporate and financial institutions have suffered substantial losses due to imprudent derivative exposures, but in Pakistan the prudent and limited use of derivative products has minimized the incidence of potential losses.

Prior to FY09, the total volume of derivatives transactions had been increasing since their introduction in 2003. Use of cross currency swaps and FX options as a hedging tool was particularly on the rise mainly due to the stability in the exchange rate environment in the last few years. However the total volume of these transactions declined by 30 percent in FY09, from Rs. 393,239 million as of June-FY08. Cross currency swaps continued to have a major share in the total outstanding derivatives volumes, followed by interest rate swaps and FX options. The volume of FX Options declined considerably during the year as a result of the economic and trade slowdown in Pakistan. Decreasing interest rate scenario has also affected the growth of PKR IRS (**Table 7.19**).

Table 7.19 : Outstanding Derivatives Volumes by Category

millions Rupees, share in percent

	Jun-07	Share	Jun-08	Share	Jun-09	Share
FX Options	42,561	20.0	88,701	22.6	10,651	3.9
Interest Rate Swaps	80,061	37.7	106,944	27.2	86,950	31.5
Cross Currency Swaps	89,689	42.2	194,944	49.6	178,174	64.6
Forward Rate Agreements	300	0.1	2,650	0.7	-	-
Total	212,611	100.0	393,239	100.0	275,775	100.0

Source: SBP Calculations

Table 7.20 : Outstanding derivatives by currency as of June 30, FY09

Rupee equivalent millions

Currency	FX Options	FRA	IRS	CCS	Total	% by Ccy
PKR	-	-	28,944	-	28,944	10
Euro	7,332	-	503	22,701	30,536	11
USD	-	-	57,004	155,473	212,476	77
CHF	-	-	-	-	-	0
GBP	-	-	-	-	-	0
JPY	3,319	-	500	-	3,819	1
AUD	-	-	-	-	-	0
Total	10,651	-	86,950	178,174	275,775	
Percentage by Product	3.9%	0.0%	31.5%	64.6%	-	100

Source: SBP Calculations

Currency-wise breakup of derivatives transactions is shown in **Table 7.20**. All derivatives transactions are based on three main currencies i.e. US$, EUR and JPY, given that most of the country's trade volume is also in these currencies.

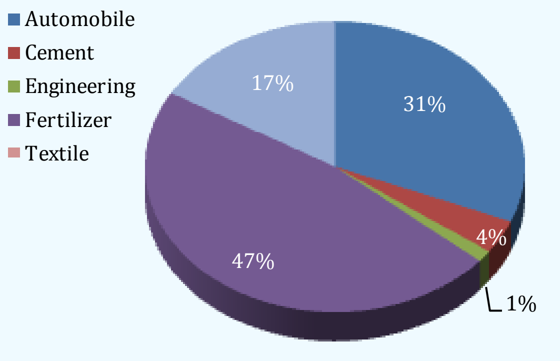
7.3.1 Product-wise Transactions

Detailed analysis of different derivatives classes and their distribution by customer type is as under:

FX options

Effects of the economic slowdown in Pakistan can be seen in the discernible decline in FX Options, from 22.6 percent of total transactions as of end-FY08 to 3.9 percent by end-FY09. Increased volatility in currencies (in which options are allowed) also rendered FX options less feasible as a hedging instrument.

Figure 7.18: Sectorwise Distribution of FX Option



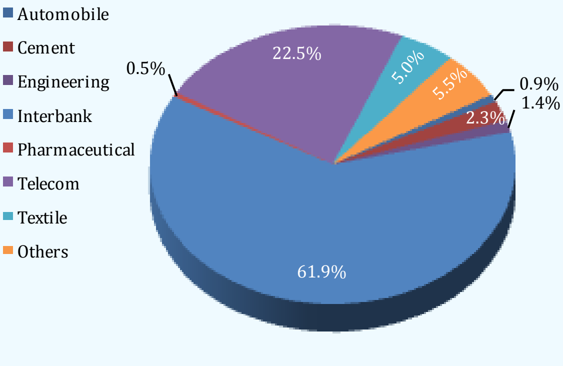
Source: SBP

The fertilizer sector continues to be the main user of FX options, with a share of 47 percent as at end Jun-FY09 (**Figure 7.18**). The volume of FX options is concentrated between two ADDs, with a cumulative share of 90 percent in the total outstanding volume of FX options as at end-FY09.

Interest Rate Swaps (IRS)

During FY09, the volume of IRS transactions decreased by 19 percent, from Rs. 106,944 million as at end-FY08 to Rs. 86,950 million as at end-FY09.

Figure 7.19: Sectorwise Distribution of IRS(PKR)

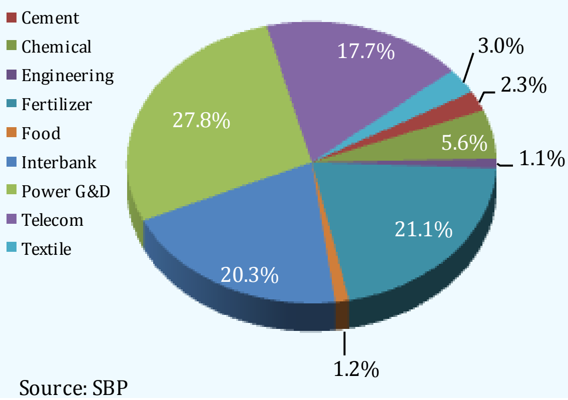


Source: SBP

PKR IRS: During H1-FY09, PKR IRS increase substantially by 35 percent in comparison with the end-FY08 level. This increase was mainly due to expectations of rising interest rates in H1-FY09, as evident from the 300 bps increase in the discount rate. In H2-FY09, however, the outstanding PKR IRS declined to Rs. 28,944 million as a result of stability in interest rates and expectations of decreasing interest rates with a reversal in the monetary policy stance, as evident from the 100 bps decrease in the SBP discount rate. Sector-wise analysis shows that the interbank market has a dominant share of 62 percent of total transactions (**Figure 7.19**).

FCY IRS: The volume of the outstanding FCY IRS showed a declining trend during FY09, and decreased by 26 percent to PKR 58,006 million as at end-FY09. Again, the major decline was observed in H2-FY09 due to the maturity of GoP IRS. As shown in **Figure 7.20,** the Power Generation & Distribution sector is a major user of these transactions. . These transactions are largely concentrated among three ADDs with 88 percent market share.

Figure 7.20: Sectorwise Distribution of IRS (FCY)



Source: SBP

Forward Rate Agreements (FRA)

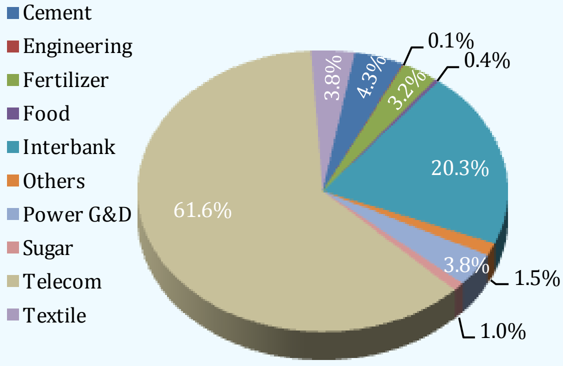
The FRA market, already negligible in size in FY08, remained almost inactive during FY09 with some transactions undertaken in H1-FY09. On maturity of these transactions, the outstanding FRA volume decreased to nil as at end-FY09.

Cross Currency Swaps (CCS)

Cross currency swaps are not covered under the FDBR and banks have to seek permission from SBP on case to case basis. While granting approval for a CCS, SBP's primary consideration is to ensure the availability of natural hedge, and these transactions are being conducted for hedging purpose only.

CCS has the highest market share in the derivatives market. During FY09, CCS volume declined by 9 percent from PKR 194,944 million as at end-FY08 to PKR 178,174 million as at end-FY09. Depreciation of PKR in H1-FY09 decreased the feasibility of CCS for exporters because the depreciation of PKR was more than the interest rate differential between LIBOR and KIBOR. As a result, exporters opted to unwind their respective CCS transactions. Sector-wise analysis (**Figure 7.21**) at end-FY09 shows that 62 percent of outstanding CCS pertains to the telecom sector.

Figure 7.21: Sectorwise Distribution of CCS



Source: SBP

7.4 Capital Markets

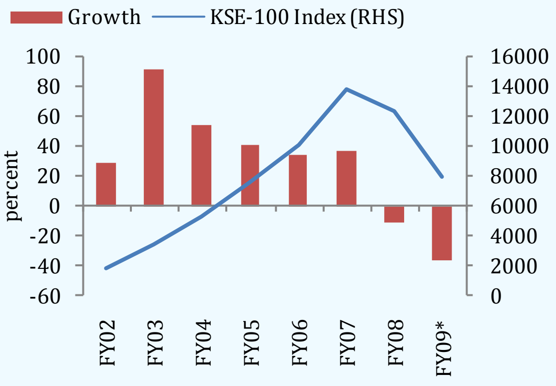
7.4.1 Equity Markets

A confluence of factors such as the deterioration in the macroeconomic environment since FY08, the aggressive pace of monetary tightening until the reversal of the stance in April FY09 and heightened security concerns, all served to dampen investor sentiments, whether domestic or foreign, for most of FY09. Stress in the equity market started to become more evident with the rapid decline in the KSE-100 index after touching its peak of 15,676 points in April, FY08. Erosion in market value was only halted when the regulator decided to impose a floor on the index at the closing value of August 27, FY09 i.e. 9,144 points. This policy measure, however, resulted in a virtual closure of the market until the lifting of the floor on December 15, FY09. Notably, the placement of the floor itself added to the bleak investor outlook and impeded the price discovery mechanism. Subsequent to the lifting of the floor, the expected free fall of the market, despite operating with a 5 percent circuit breaker mechanism, led to a further decline of 47.3 percent by January 26, FY09 when the index dropped to 4,815 points. During this period, trading remained thin, hovering at levels previously seen in FY04; a major setback for the gains achieved in the last five years. Notably, the Continuous Funding System (CFS) which had been in use as a leverage product, was also gradually phased out during FY09, creating financing difficulties for investors. Due to the non-functionality of the market, MSCI Pakistan Index was excluded from the MSCI Emerging Market Index in December FY09. The weak macroeconomic outlook also led to credit rating downgrades by Moody's and S&P in FY09.

While these various developments were taking place on the domestic front, the resurgence of the global financial crisis with the collapse of world renowned financial institutions in September 2008, also led to a substantial outflow of portfolio investment. As the liquidity stress in international financial markets compounded, investors across the board preferred to pull back from emerging and developing economies. Notwithstanding, the index recovered some of its value by June 30, FY09, closing at 7,162 points.

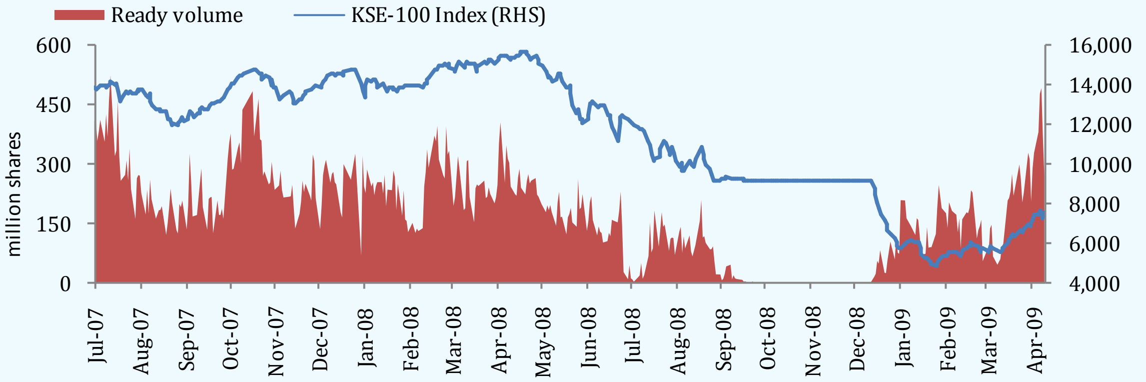
Notably, FY09 was the worst performing year for the KSE-100 index since its creation in November 1991; market capitalization reduced by 43 percent during the year to Rs. 2,121 billion (**Figure 7.22)**. From the day the price floor was lifted to January 26, FY09, market capitalization had declined by 59.1 percent (64.6 percent in US Dollar term) to Rs 1,544.4 billion, whereas the average ready market volume reduced to 93.15 million shares, as against 242.36 million shares when the market was at its peak (**Figure 7.23**).

Figure 7.22: Performance of KSE



Source: KSE *upto April 2009

Figure 7.23: KSE-100 Index and Ready Volumes



Source: KSE

Trends in all three stock exchanges market of Pakistan has been summarized in the **Table 7.21**

Trends in International markets

The far-reaching impact of the 2007 global financial crisis, with its epicenter in advanced economies, served to dispel notions of decoupling, and reinforced the all encompassing notion of globalization and financial integration. While the impact of the global recession finally hit Asia hard in Q4-2008, an immediate impact was seen in market sentiments in emerging economies where financial markets witnessed major stress in Q3-2008, as the mature markets started withdrawing their investments from their respective equity and debt funds.[6] Emerging Asia (EA) equity markets plunged to their lowest levels in 10 years, losing 66.4 percent value (in US Dollar terms) from their October 2007 peak **(Box 7.1)**. Besides Emerging Asia, the impact of the financial crises on the performance of stock markets across the world can be seen in declining values, as shown in **Tables 7.22 & 7.23**

Trends in Portfolio Investment

Given the limited level of integration, Pakistan's equity market does not have a strong correlation with global market trends. However, during FY09 the domestic equity market also witnessed large outflows of foreign portfolio investment (US$537.2 as compared to outflows of US$230.8 million in FY08). Consequently, the total value of foreign investment in the equity market dropped by 77 percent to US$1.2 billion by end-FY09 from a substantially higher level of US$5.1 billion, when the market was at its peak in April FY08 **(Figures 7.24 & 7.25).** Apart from global developments, the continued outflow of investments from the

[6] WEO April 2009

Table 7.21: Overview of Capital Market

Equities (KSE)		FY03	FY04	FY05	FY06	FY07	FY08	FY09
Listed Companies	numbers	701	666	659	658	656	652	651
Listed Capital	billion Rs.	313	377	439	496	631	706	781.8
Market Capitalization	billion Rs.	756	1,422	2,068	2,801	4,019	3,778	2,120.7
Market Capitalization as % of GDP	percent	19.7	25.2	31.4	36.3	44.2	36.1	16.2
New Listed Companies	numbers	6	14	18	4	18	8	8
New Listed Capital	billion Rs.	4.6	55.6	32.3	7.8	7.9	36.8	5.5
Debt Instruments (listed)								
New Debt Instruments Listed	numbers	15	6	12	7	8	7	2
Amount	billion Rs.	10.7	3.3	15.6	7	11.2	22.5	6.1
KSE-100 index				7,450	9,989	13,772	12,289	7162.1
High		4,606	5,621	10,303	12,274	9,504	15,676	12,222
Low		2,357	3,431	4,890	6,971	13,772	11,162	4,815
KSE-30 Index						16,993	14,326	7571.0
KSE All Share Index				4,876	6,708	9,758	8937	5,121.7
Turnover (KSE)								
Average Volume per day (shares)	billion	0.31	0.39	0.35	0.32	0.21	0.24	0.10
Total Value	billion Rs.	3,841	4,862	7,168	8,707	5,453	6313	221
Turnover Ratio		4	3.4	3.5	3.1	1.3	1.7	0.1
Lahore Stock Exchange								
LSE-25 Index		2,035	2,828	3,762	4,379	4,850	3,869	2132.39
LSE Market Capitalization	billion Rs.	751	1406	1995	2693	3,185.41	3514	2018.23
Market Capitalization as % of GDP		15.6	24.9	30.3	34.9	35.1	33.5	15.41
Islamabad Stock Exchange								
ISE-25 Index		8210	1184	11571	11528	2,716.0*	2749	2444
ISE Market Capitalization	billion Rs.	5,41.3	1,106	998	2,102	3,061	3,810	3,618
Market Capitalization as % of GDP		11.2	19.6	15.2	27.2	33.6	36.4	27.6
SCRA Investment (net flows)	mln US$				354.0	980.0	-232.1	-537.2

Source: Stock exchanges
* LSE and ISE-10 Index

equity market is largely attributed to high volatility in market volumes since FY08 (**Figure 7.26**), and bearish trading sessions during FY09 due to the various factors mentioned earlier. Exclusion of Pakistan's market index from MSCI Emerging Market Index was also responsible for the net foreign capital outflow from the market: total foreign net selling of US$297 million was observed from December 15, 2008 to May 29, 2009, on the re-inclusion of Pakistan's index.

To give some background, on December 15, FY08, MSCI Barra[7] had removed Pakistan's market index from its emerging market index mainly due to the restrictions on normal trading arising from the placement of

Table 7.22: Country-wise performance of MSCI Emerging Markets Asia\Far East

		Since	
	FY09*	Dec 15, 08*	Aug 27, 08*
EM Asia	-20.0	35.4	-13.0
EM Far East	-21.7	33.4	-13.4
Pakistan	-57.2	-27.9	-34.8
Korea	-31.4	28.6	-20.6
Taiwan	-26.1	35.9	-17.9
Indonesia	-25.7	54.0	-17.5
Thailand	-20.9	43.8	-8.7
Malaysia	-14.6	30.8	-1.3
China	-10.7	34.0	-6.1
India	-6.2	51.8	-9.6
Philippines	-2.6	26.3	-9.1

Source: MSCI Barra
*upto June 30, 2009

[7] Morgan Stanley Capital International (MSCI) is a leading provider of benchmark indices. The Pakistan Index was first inducted in the MSCI Index series in February 1994.

the price floor. However, subsequent to the removal of the floor on December 15, FY08 and the re-emergence of relatively smooth functioning of the equity market, Pakistan was re-included in the MSCI Frontier Index (FI) on May 29, 2009.[8] Exclusion of Pakistan Index from MSCI Barra served to further deteriorate investor confidence due to which

Table 7.23: MSCI Index performance in other regions\ countries

	FY09	Since Dec 15, 08*	Since Aug 27, 08*
MSCI EM	-30.0	35.3	-20.2
MSCI World	-31.2	8.2	-27.5
Asia Pacific ex Japan	-24.7	33.8	-16.4
Asia Pacific	-24.5	17.2	-16.0
Asia ex Japan	-20.3	34.4	-13.3
UAE	-65.2	5.3	-59.0
Russia	-61.8	26.0	-44.8
Saudi Arabia	-41.3	14.7	-38.2
Brazil	-40.5	54.0	-26.4
United Kingdom	-37.2	6.8	-31.0
USA	-28.5	6.7	-28.3
Singapore	-27.2	31.4	-18.0
Japan	-24.6	2.9	-15.6
Hong Kong	-18.5	29.7	-12.8

Source: MSCI Barra

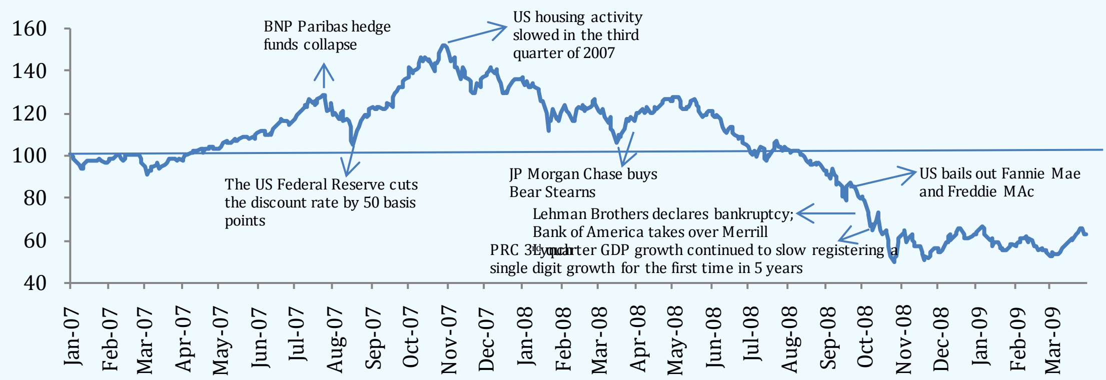
*upto June 30, 2009

Notably, instability in the exchange rate was also a concern for foreign investors because depreciation of the domestic currency erodes the value of their investments in Rupee terms. The exchange rate depreciated by 16.3 percent in the first four months of FY09.[9] The sharp depreciation in PKR also contributed in the net foreign investment outflow from the capital market. Similarly, double digit inflation, rising upto 25.3 percent in August FY09, also contributed in eroding the real investment value. During FY09, local institutions and high net worth individuals provided sufficient support to the market against foreign investment outflows. As a result Pakistan stock market is recovering steadily.

Box 7.1: Global Financial Crisis and Performance of Emerging Asia's Equity Markets

Emerging Asia's (EA) equity markets are showing some signs of stabilizing following a dismal year in which they were hit hard as the global financial crisis intensified **(Figure 1**). The global financial crisis, which deepened drastically in September following the failure of Lehman Brothers (and other institutions) and the growing evidence of economic slowdown in industrial countries, exacted a heavy toll on EA equities. EA's equity markets plunged to their lowest levels in 10 years, losing 66.4 percent value in US dollar terms from their October 2007 peak, to a market trough one year later. EA equity markets collectively lost 51 percent of their market capitalization since the onset of the financial crisis, after steady and robust growth during 2003–2007. The current crisis exceeds two previous crises in the region in terms of the speed and magnitude of equity price declines. Markets have been moving sideways since the October 2008 trough. Although there has been a slight pick up recently, clear signs of a turnaround remain elusive.

Figure 1: MSCI Indexes -Emerging Asia (Jan 2, 2007 =100)



Source: MSCI Barra

Broad market indexes across EA, which have moved sideways since late November, are showing signs of a tentative recovery. Most of the region's broad market price indexes have trended down since the onset of the global crisis. Vietnam's VNINDEX plunged 66 percent in 2008, registering the biggest price decline in the region

[8] The stocks included in the MSCI are MCB, NBP, UBL,NIB,OGDC, POL,PSO,KAPCO,HUBCO,FFC,JSCL and PTCL (combined weight of 45% in KSE-100 Index).

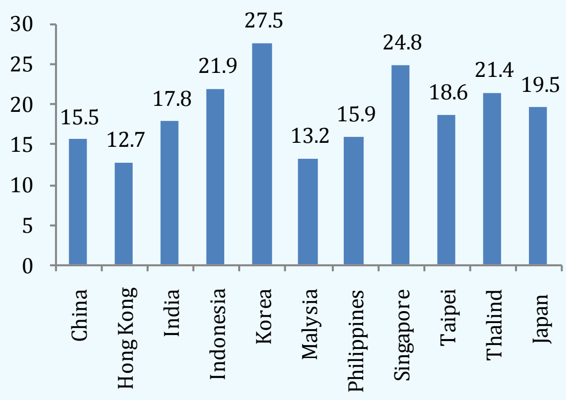
[9] Details in section 7.2.

for the year. Among the worst performers were the region's largest stock markets, such as the People's Republic of China (PRC) and India, where broad market indexes fell 52.2 percent and 56.8 percent respectively. Elsewhere, losses ranged between 40 percent and 53 percent. Prices continued to decline in the first quarter of 2009 on a slew of weak economic data and poor earnings reports, but the pace and magnitudes of the decline have eased visibly this year. PRC market advanced 33.9 percent since January, after making a strong rebound from its November 2008 low.

With the collapse of equity prices, valuation indicators across EA *equity markets have started to look attractive, underpinning the cautious optimism that the worst may be over.* At the onset of the global financial crisis, the collapse in equity prices was more drastic in EA markets. This reflects the effects of re-pricing assets amid heightened risk aversion. The price-to-book values for EA equities have also fallen. Earnings remain high in many of the region's markets, albeit at reduced levels. Various valuation indicators suggest that the markets have reached bottom. However, given current economic conditions, the eventual recovery will likely be a long and drawn-out process.

The region's policymakers have also been active by cutting benchmark rates and introducing large-scale stimulus packages across the region. Aggressive fiscal and monetary stimulus policies are being made to help strengthen the current rally and contribute to better equity performance in future.

Figure 2: Foreign Holdings of Equity-2003-07-Average



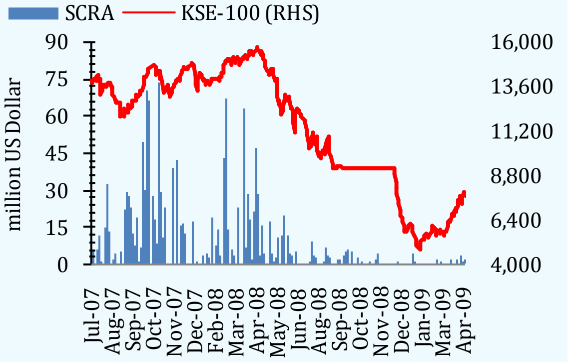
Capital raised through IPOs and secondary share offerings in local stock markets exhibited strong growth in the 5 years between 2003 and 2007. Total equity issuance in EA grew by an average of US$87.6 billion or 42.8 percent per year during the period. However, global financial crisis took a heavy toll on the region's initial public offering (IPO) markets, with new IPOs and private equity deals having virtually ceased since the latter part of 2008, reflecting heightened market uncertainty.

EA turnover grew 54 percent per year on average between 2003 and 2007. However, with the onset of the crisis, EA equity markets experienced a tightening in market liquidity. Price volatility reached highs in line with global market trends and turnover decreased sharply.

Greater foreign participation may have also contributed to the heightened sensitivity of EA equities to global events **(Figure 2)**. The degree of financial openness leaves EA equity markets vulnerable to a sharp reversal in portfolio investment flows, as seen during the current crisis.

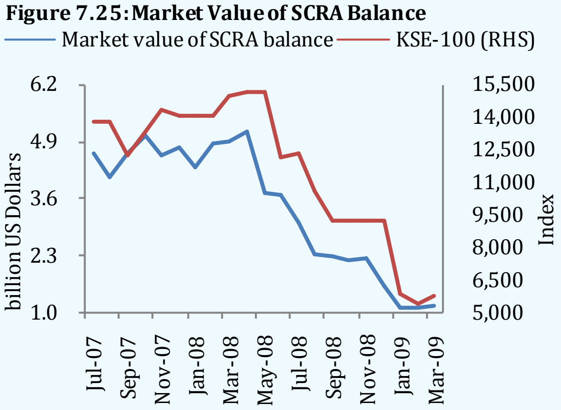
Source: Asia Capital Markets Monitor, April 2009, Asian Development Bank.

Figure 7.24: Special Convertibility Rupee Account (SCRA) Flows



Source: SBP and KSE

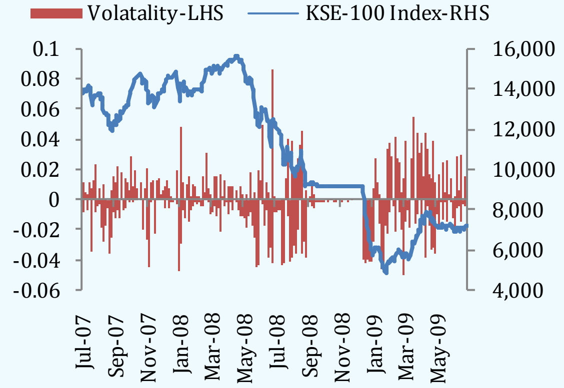
Figure 7.25: Market Value of SCRA Balance



Source: Statistics and Data Warehouse Department, SBP

Challenges, Risks and Regulatory Developments

Figure 7.26: Market Volatility



Source: KSE

Notably, one of the reasons for the rapid decline of the equity market in the last quarter of FY08 and subsequent months was also the lack of liquidity in the market, particularly from May FY08 onwards when SBP announced its interim monetary tightening measures, which entailed a rise in banks' reserve requirements, in addition to an increase in the policy discount rate. These liquidity pressures continued to build up until October FY08 when rumor mongering about the financial position of a few banks led to a heavy withdrawal of deposits by the general public. The combination of all these factors led to a severe, albeit temporary, liquidity crunch in the market.[10] SBP's timely policy actions ensured that there was an appropriate level of liquidity in the market. Constrained liquidity in the banking system, alongwith lack of an exit option due to the floor in the stock market, compounded liquidity concerns.

With the weak macroeconomic environment, depletion of foreign exchange reserves and erosion of investor confidence prior to the implementation of the macroeconomic stabilization program with the support of the IMF Stand-by Arrangement (SBA) in November FY09, the decision to lift the floor was held in abeyance for several weeks. Liquidity strains in the market were also reflected in above-average rates in the interbank call market and average CFS rates during this period almost touched 100 percent on some occasions, reflecting lender's risk aversion and withdrawal of funds due to growing fears of potential settlement issues once the floor was removed.

The market resumed normal trading with a 5 percent circuit breaker from December 15, FY09. Fears regarding the free fall of the KSE-100 index were realized in the gradual decline in the market, such that the index lost 47.6 percent of its value to reach 4,815.3 points on January 26, FY09: a five year low. Market participants had already anticipated this decline due to a host of reasons in the operating environment of the financial sector, such as the global financial crisis, Pakistan's rating downgrade by sovereign credit rating agencies and worsening border tensions.

Another risk which emerged with the steep fall in share prices was the *risk to reported earnings*. The free fall in the listed share price impacted companies' balance sheets for their financial close at end-CY08, given the impairment of their investments in the equity market. However, this issue was resolved amicably by SECP's decision to grant a relaxation of requirements of the IAS-39, by allowing deferment of impairment losses on available-for-sale (AFS) equity securities.

There were some positive developments in H2-FY09 which served to boost investors' confidence. These were: (i) inclusion of Pakistan on May 29, FY09 in MSCI Frontier Markets Index by MSCI Barra, and (ii) receipts of financial assistance largely from the IMF and the World Bank. In addition to that, strong corporate results by sectors such as E&P, commercial banks, fertilizer, and cement, reduction in SBP Discount rate from April FY09, rationalization of the rates of return on NSS and PIBs, consistent decline in CPI inflation, rationalization of banks' MCR by SBP and consolidation of political issues in the government

[10] Details in section 4.4, chapter 4, 'Stability of the Banking System" in this edition of the FSR.

Etc., were some of the big news for the market. Consequently, the KSE-100 index recovered lost value by 17 percent during Q3-FY09. Interestingly, during the same period, performance of other regional countries remained sluggish, as reflected in the return on major regional indices calculated by MSCI Barra which remained between 0.5 percent to -12.5 percent (**Table 7.24**).

Table 7.24: Performance of World Markets : Q1-CY09

Country/Region	percent
Pakistan	17.0
MSCI_ EM	0.5
MSCI_EM ASIA	1.2
MSCI _ World	-12.5
Asia PACIFIC	-9.75
Asia ex Japan	0.3
Asia Pacific ex Japan	-0.8

Source: MSCI Barra

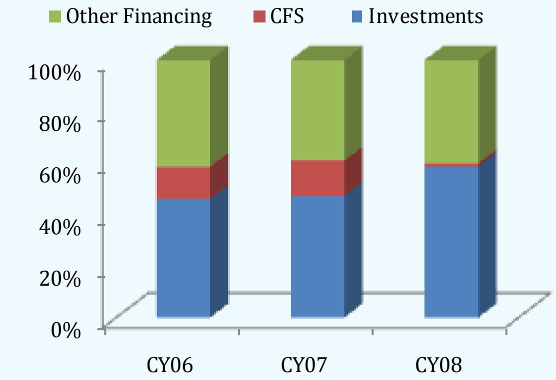
Continuous Funding System

Up until recently, Continuous Funding System (CFS) and deliverable futures had been catering to the financing needs of the market participants. During FY09, SECP formulated a special committee comprising of various stakeholders to review these leveraging products. In order to safeguard investors' interest, improve risk management measures and enhance corporate governance practices, the committee recommended discontinuation of both the CFS Mark-II product as well as the deliverable futures product with effect from April 08, 2009,[11] and replaced these with Cash Settled Future (CSF) products. According to the committee's report, easy access to CFS had resulted in over-leveraging in the marketplace, leading to price bubbles which are detrimental for long-term investors. The report also observed that these products gave rise to market abuse practices through the *pump-and-dump* strategy. Subsequent to the committee's recommendations, CFS was gradually phased out from the equity market while the announcement of a substitute product is still awaited.

Risk to Financial Stability: Impact of stock market performance on the Banking System.

The domestic banking sector carries direct and indirect exposure in the equity market: the direct exposure entails investments, whereas indirect exposure is in the form of margin and CFS financing, in addition to banks' lending against shares. Risks to financial stability from banks' exposure in the equity market are more likely to emerge in an environment of market volatility combined with a high stake. Fortunately, banks' total exposure in the equity market is not only within the limits specified in SBP's Prudential Regulations, but it has declined in CY08. Banks' total stake in the equity market, including direct and indirect exposure, has reduced by 30.4 percent to Rs. 82.0 billion[12] in CY08 from Rs. 117.7 billion in CY07, which is 14.7 percent of the total equity base of the banking system in CY08 **(Figure 7.27).**

Figure 7.27: Total Stake of Banks in Equity Market



Source: OSED

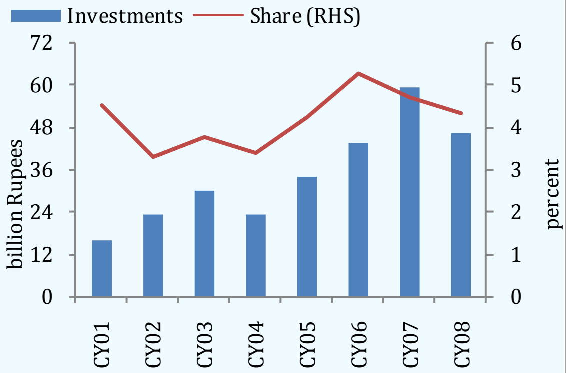
Specifically, banks' direct exposure in the form of equity investments, declined by 4.3 percent in CY08 to Rs. 49.3 billion, as compared to a rise of 18.9 percent in CY07. As a result, the share of bank's equity investments in their total investments was 4.5 percent as compared to the share of 5.3 percent recorded in CY07 **(Figure 7.28).**

[11] SECP Press Release, April 7, 2009.

[12] This include Banks' direct exposure in the form of investment in the equity market, CFS financing and other financing.

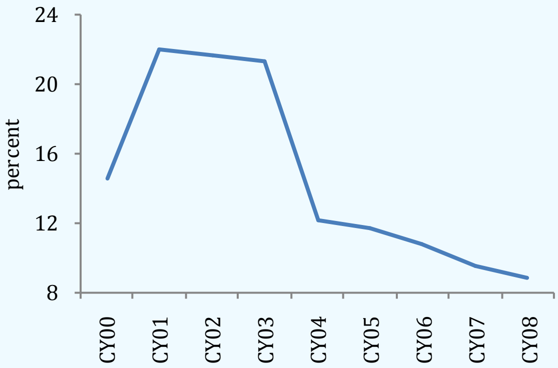
In order to provide the requisite support to the market, SBP took certain regulatory measures in FY09 to potentially enhance banks' investment in shares. In doing so, SBP allowed banks to have an aggregate exposure of 30 percent in both the ready market (20 percent) and futures contracts (10 percent), where prior to this regulatory amendment banks were required to maintain an aggregate exposure of 20 percent.[13] This new development was intended to boost banks' investments in shares to help stabilize market conditions. Banks on the other hand were keen to limit their losses in adverse market conditions. Consequently, banks' total investment in shares as a proportion the aggregate equity base further declined to 8.8 percent in CY08, with a consistent decline seen since CY01 (**Figure 7.29**).

Figure 7.28: Banks Investments in Shares



Source: Banking Surveillance Department, SBP

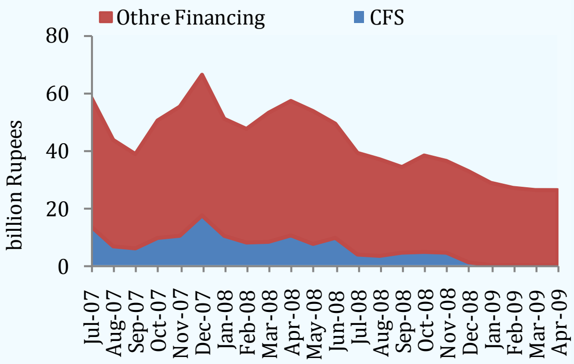
Figure 7.29: Investment to Equity Ratio



Source: Banking Surveillance Department, SBP

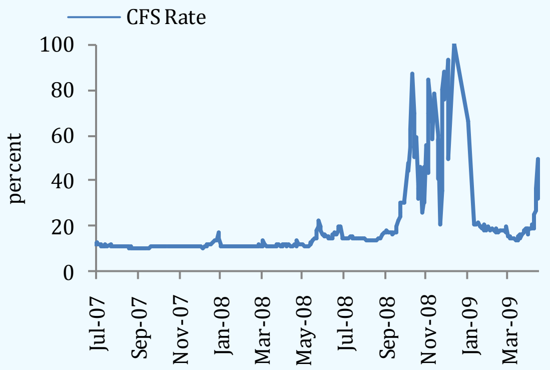
Similarly, banks' exposure in the CFS market remained within prudent limits during FY09. With the discontinuation of CFS Mk-II, banks have registered zero exposure in CFS after CY08. Likewise, financing extended by banks with shares as collateral also declined to Rs. 32 billion by end-CY08 as against Rs. 49.8 billion witnessed in FY08 **(Figure 7.30 a&b)**. In sum, following the equity market crisis, banks' exposure in the equity market has declined substantially and the existing level of exposure poses no serious threat to financial stability.

Figure 7.30 (a): Stake of Banks in CFS



Source: Banking Surveillance Department, SBP

Figure 7.30 (b): Daily CFS Rate Since FY07



Source: KSE

New Listings

Despite the weak performance of the market, the number of new listings increased during the year: 8 companies were listed on the Karachi Stock Exchange with a total paid-up capital

[13] BPRD Circular Letter No. 30 dated October 26, 2008.

of Rs. 2.9 billion in FY09, compared with 7 companies with a higher paid-up capital of Rs. 14.3 billion. Notably, most of the public issues were concentrated in the first quarter of the year, at a time when the market was undergoing rapid volatility, due to which these issues were undersubscribed.

Table 7.25: New Listing At Karachi Stock Exchange during FY09

million Rupees

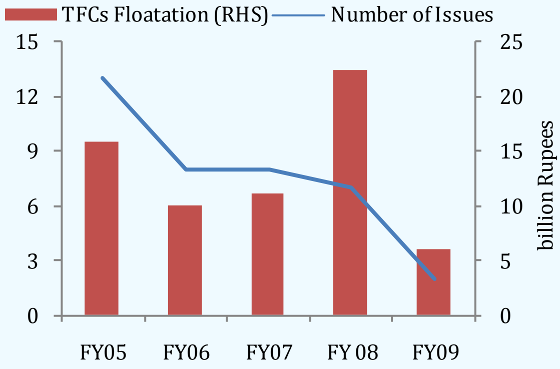
Name of Company	Date of Formal Listing	Total Amount Subscribed At Face Value	Premium Of Total Amount Subscribed	T. Amount Subscribed Including Premium Amount	Total Paid-up Capital
1. Engro Polymer & Chemicals Limited	21-Jul-08	1,578.5		2,841.4	5203.7
(Offer for Sale) Rs. 8 premium per share			1,262.8		
2. KASB Securities Limited	4-Aug-08	43.5		293.9	1000.0
(Offer for Sale) Rs. 57.50 premium per share			250.4		
3. First Credit and Investment Bank Limited	21-Aug-08	19.5		19.5	650.0
4. Arif Habib Investment Management Limited	28-Aug-08	80.7		1,008.3	300.0
(Offer for Sale) Rs. 115 premium per share			927.6		
5. Descon Oxychem Limited	15-Sep-08	347.2		347.2	1020.0
6. Media Times Limited	2-Feb-09	3.3		3.3	1341.4
7. Nishat Power Limited	7-Oct-09	274.3		274.3	3540.9
(Offer for sale of shares)					
8. Nishat Chunian Power Limited	22-Oct-09	707.0		707.0	
Total		3,054.0	2,440.9	5,494.9	2991.4

Source: KSE

7.4.2 Corporate Debt Market

The debt market in Pakistan is largely dominated by government bonds, primarily T-Bills and PIBs, for which the investor base consists of banks and corporate entities, and the NSS instruments, in which both individuals and institutional investors can invest, other than banks and and insurance companies.

Figure7.31: TFCs Floatation



Source: KSE, SECP

The listed corporate bond market, having taken its roots in Pakistan in 1995, still constitutes a miniscule portion of total financial assets (**Figure 7.31**), constituting less than 1.0 percent of GDP. Owing largely to the equity market crisis in FY09, TFCs issuances in FY09 remained weak and only 2 new TFCs[14] worth Rs. 6.1 billion were issued as against 7 issues worth Rs. 22.5 billion in FY08. Notably, in the last 3 years, most of the TFCs have been issued by banks and other financial institutions to meet their tier 2 capital requirements. Total outstanding listed TFCs as of end-FY09 amounted to Rs. 62.2 billion.

7.4.3 Corporate Financing Patterns

Sources of corporate financing are detailed in **Table 7.26**. It is evident from the data that highest portion of corporate financing is met by bank credit and the trend is increasing over the years. IPO and TFC have a minor contribution in meeting the financing needs of banks' corporate clients.

[14]TFCs of Rs. 5.5 billion and Rs. 0.6 million were issued by Pakistan Mobile Communication Ltd and Trust Investment Bank respectively.

7.4.4 Conclusion

The significant achievements of the equity market in Pakistan since FY04 virtually disappeared in FY09, during which market volumes were subjected to substantial volatility and the KSE-100 index decline unabatedly despite the virtual closure of the market for almost 4 months. Notably, the equity market upheaval had a negligible impact on financial stability, given its rather limited role in meeting the financing needs of the economy. There was however, a certain degree of wealth effect, which can be seen in the erosion of value in investors' accounts maintained with the Central Depository Company (CDC) **(Figure 7.32).**

Table 7.26: Sources of Corporate Financing

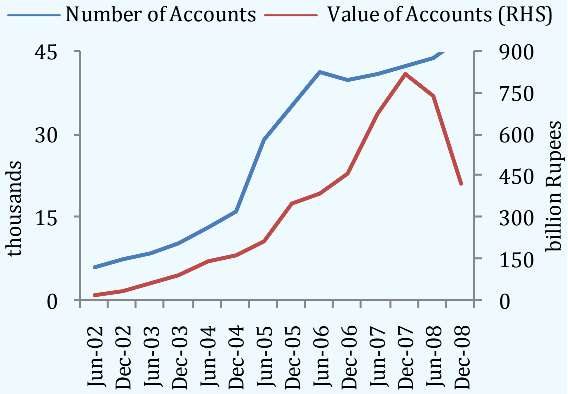
billion Rupees

Year	Banks	IPO*	TFC*
CY02	10.9	0.1	4.7
CY03	186.4	2.5	19.5
CY04	466.8	21.7	0.0
CY05	416.1	9.8	6.6
CY06	397.4	3.0	3.0
CY07	300.1	4.9	4.0
CY08	494.5	5.6	12.1

Source: SBP and KSE

* IPOs and TFCs issued by financial institutions are not included.

Figure 7.32: Total Participation in Stock Market



Source: CDC