

9

Performance of Financial Markets

9.1 Overview

The presence of sound and efficient financial markets which complement the banking sector has become increasingly important for Pakistan, specially as part of the financial sector reforms initiated in the last few years. While the impressive economic performance itself has helped financial markets to grow both in terms of size and depth, efficiently working markets are also needed to facilitate the growth momentum in future. It is to be noted though that opportunities provided by improved linkages among markets at the domestic level and a rising degree of integration with the international financial systems are not free of cost, as the risks associated with financial market activities are increasing with a rapidly growing economy. In order to optimize the benefits, it has become equally important for both the regulators as well as the market players to improve efficiency measures and adopt better risk management procedures.

This chapter discusses the developments during FY05 in the Money, Forex and Capital Markets.

9.2 Financial Markets : Developments, Issues and Policy Implications

9.2.1 Money Market

In line with SBP's monetary stance during FY05, developments in the money market can be categorized into two distinct periods. The first phase consisted of the initial nine months of the year, when SBP tightened its monetary policy at a steady pace, against market expectations of a sharper rise in interest rates. The second phase started from mid-April 2005, when SBP decided to make a sharp upward adjustment in the benchmark interest rates.

Despite the fact that SBP had continued to gradually increase the rates, the monetary policy stance remained accommodative throughout the first phase.¹ Banks on the other hand held on to expectations of a sharper increase in interest rates since the start of FY05 due to a number of factors including: (a) the continuing rise in inflation; (b) anticipated pressure on the Rupee following the re-emergence of a current account deficit; and (c) the likelihood of a rise in government borrowings from the banking sector (as domestic non-bank borrowings were expected to fall short of the target).² The relatively gradual tightening by the State Bank³ was reflective of its desire to strike a balance between controlling inflation (and in particular, the *acceleration* in core inflation) while simultaneously ensuring that the growth momentum of the economy was not significantly impacted. The divergent views between SBP and the market are clearly evident in **Figure 9.1**, which shows that the bid-spreads in the T-bills auctions during FY05 remained significantly wider than the pattern observed in FY04.

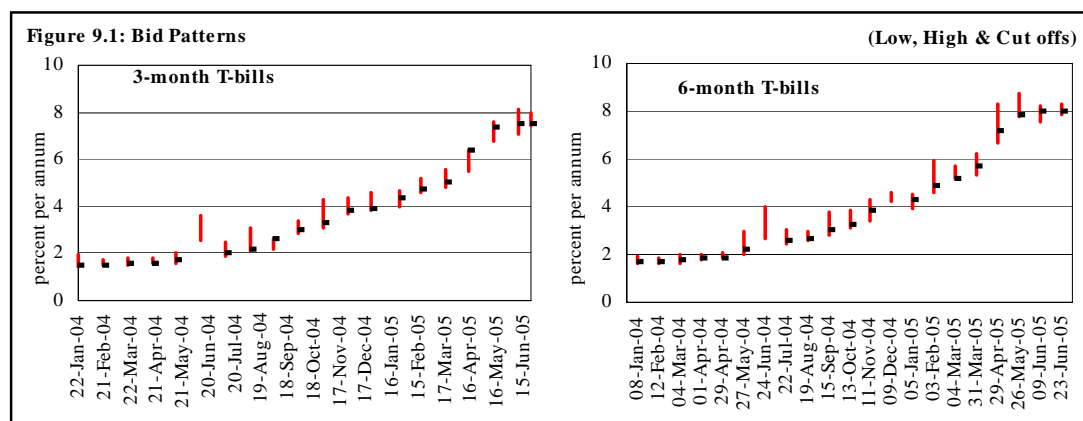
As no sign of deceleration in core inflation was observed until March FY05 and economic growth was more than likely to exceed its target comfortably, SBP decided to tighten the monetary policy more

¹ For details, please see, "The State of Pakistan's Economy" report for Q2-FY05, State Bank of Pakistan.

² During H1-FY05, the financing available to the government from non-bank sources was only Rs 15.7 billion against the full year target of 74.7 billion (in H1-FY04 non-bank financing was Rs 30.3 billion against the full year target of Rs 59.8 billion).

³ The process of monetary tightening started in May 2004. While the upward pressure on interest rates was already there since the beginning of Q4-FY04 (when the Rupee started to depreciate against the US\$), it was the sharp upsurge in core inflation (monetary induced as measured by inflation in the non-food non-oil sub-set of the CPI basket) in April 2004 which made it imperative for SBP to start tightening the monetary policy (see Figure 9.1). YoY core inflation increased from 4.0 percent in March 2004 to 5.1 percent in April 2004. This information was made public by mid-May 2004 and since then SBP started to tighten the monetary policy

aggressively.⁴ The central bank sent a strong signal to the market by raising the discount rate by 150 basis points to 9.0 percent, with effect from April 11, FY05. Furthermore, the subsequent T-bills auctions during the month saw a strong rise in cut-off rates. After this sharp adjustment, SBP's outlook was largely aligned with market expectations of rising benchmark interest rates. This can be observed in the bid patterns in the last two months of FY05 (see **Figure 9.1**).



Primary Market of T-bills

During FY05, SBP conducted 26 T-bills auctions. The overall target of Rs 1,016.0 billion was not only substantially higher than the previous year's (target) value of Rs 670.0 billion, but also significantly larger than the maturing T-bills (see **Table 9.1**). Moreover, the total accepted amount was above the target and the acceptance ratio⁵ improved substantially during FY05.

Table 9.1: Treasury bills Auctions' Summary

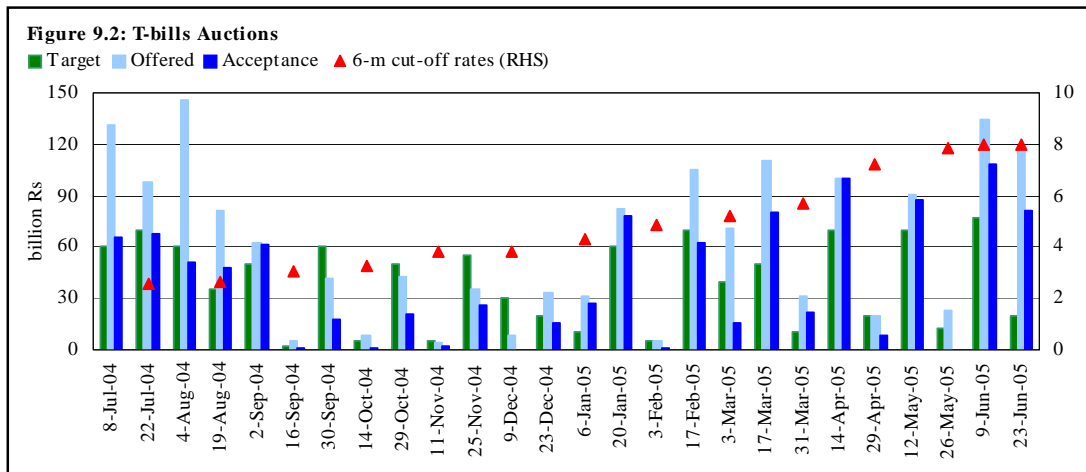
Instrument	Year	Amount (billion Rupees)			Percent accepted
		Target	Maturity	Offered	
3 m	FY04	-	-	217	53
	FY05	-	-	1012	72
6 m	FY04	-	-	329	48
	FY05	-	-	462	56
12 m	FY04	-	-	477	51
	FY05	-	-	117	60
Combined	FY04	670	580	1022	50
	FY05	1016	881	1619	65

However, Q2-FY05 was different in this respect, when SBP accepted very low amounts in T-bills auctions to avoid a sharp jump in interest rates. Specifically, in the auctions conducted during October to December FY05, SBP accepted only Rs 83.3 billion against the target and maturities of Rs 225.0 and Rs 239.9 billion, respectively (see **Figure 9.2**).⁶ This low acceptance was due to SBP's accommodative monetary policy and the increasing opportunity cost for banks from investing in government securities due to the surging credit demand from the private sector.

⁴ For details, please see "The State of Pakistan's Economy" report for Q3-FY05, State Bank of Pakistan.

⁵ The ratio of amount accepted to amount offered.

⁶ While in the first six auctions (till mid-September FY05), SBP accepted Rs 294.4 billion against target and maturities of Rs 277.0 billion and Rs 158.4 billion, respectively.



As every year the period from September to December is normally the season for higher credit demand for working capital, tightening the monetary policy in that period would have stifled the economic growth process. Moreover, doing so would also have led to cost-push inflationary pressures in the economy. Keeping these factors in mind, the central bank aimed for a gradual rise in interest rates, while banks, in the presence of a very strong credit demand from the private sector, started bidding for a sharper increase in the subsequent T-bills auctions. As a result, SBP rejected most of the bids in the T-bills auctions during this period and on three occasions scrapped the entire auction.⁷

Not surprisingly then, a larger activity was seen in the shorter tenor T-bills during FY05. As shown in **Table 9.1**, both the amount offered and accepted in auctions decreased as the tenors increased. In a rising interest rate environment banks were only interested in parking their funds in short tenor securities, thus they showed very little interest in the 12 months' paper.⁸ SBP, in its efforts to avoid a sharp jump in interest rates also accepted higher amounts in the 3 and 6 month papers.

FY05 saw a change in the procedure for conducting T-bills auctions. In June FY05, SBP decided to once again conduct the auctions of all the three tenors simultaneously.⁹ To put this in perspective, SBP started conducting separate T-bills auctions for the 3 and 12 months' tenors from October 2002.¹⁰ It is expected that the simultaneous conduct of auctions for the three tenors will help in communicating the desirable term structure to the market more clearly.

Open Market Operations (OMOs)

As expected, SBP's open market operations remained focused on draining liquidity from the market during FY05. Net of injections, SBP mopped-up Rs 556.0 billion against Rs 334.2 billion in FY04 (see **Table 9.2**). This large drain of liquidity was needed to effectively transmit the monetary tightening signal to banks' lending and deposit rates, especially during the second quarter of the year.

⁷ Of which 2 were of 12 months tenor and one of 6 months.

⁸ Not only was the offered amount in 12 months T-bills very low, but the bids were also at very high rates.

⁹ See EDMD Circular No. 7 dated June 3, 2005.

¹⁰ At that time this step was taken to overcome the excessive bidding by banks in all the three tenors at very low rates in every successive auction. As SBP was aiming for a gradual decline in benchmark rates, this usually led to the rejection of the entire bids for the 3 and 12 months' tenors, or else SBP had to accept very large amounts in the auctions. From July to October FY02, SBP scrapped the entire bids on five occasions for each of the two tenors out of the seven auctions conducted during this period.

As mentioned in the previous section, in the second quarter of FY05 the net acceptance in T-bills auctions was negative, thus adding to the liquidity in the market.

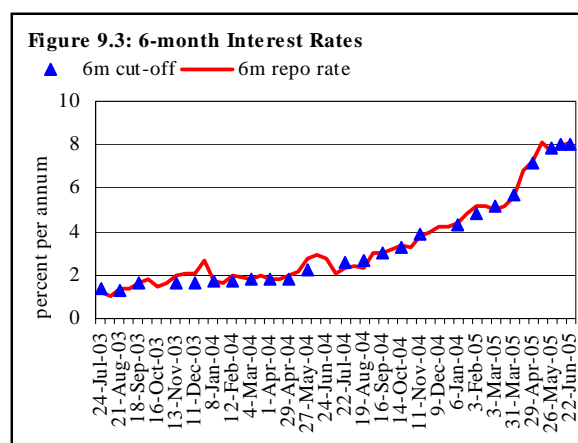
Table 9.2: Open Market Operations

billion Rupees

	Injection		Absorption		Numbers of OMOs	
	FY04	FY05	FY04	FY05	FY04	FY05
July	-	-	41.5	71.5	3	2
August	-	-	8.0	57.9	1	3
September	-	-	76.0	4.0	4	1
October	3.5	14.0	13.0	52.6	3	5
November	56.7	-	-	42.6	5	4
December	16.5	-	29.5	95.2	3	6
January	-	21.3	54.5	6.5	2	3
February	-	-	22.0	56.6	1	3
March	-	-	16.6	60.8	2	3
April	-	-	24.0	49.6	2	8
May	-	20.0	4.9	49.2	3	8
June	-	-	120.9	64.9	4	6
Total	76.6	35.3	410.7	611.2	33	51

This, however, required close monitoring, as too much tightening of liquidity in the inter-bank market would have fueled the already existing expectations of a sharper increase in interest rates, while on the other hand leaving the interbank market liquid would have weakened the monetary transmission to secondary market rates. SBP was quite successful in striking the right balance, as shown in **Figure 9.3**, as the 6 month rates in the secondary market closely followed the movement of the auction cut-offs. It is important to note that with the expected implementation of RTGS from the beginning of January 2006, the task of interbank liquidity management will become even more challenging for monetary managers (see **Box 9.1**).

A key development during FY05 was the increased frequency of OMOs conducted by SBP. In specific terms, in FY05 SBP conducted 51 OMOs as opposed to 33 in FY04 (see **Table 9.2**). Furthermore, since April FY05, SBP has decided to substantially increase the frequency of interventions. Also, unlike its earlier practice, SBP started conducting OMOs for periods of even less than a week. The objective was to reduce the high volatility of overnight interest rates, which was one of the major concerns for both the policy-makers and the market players.



Box 9.1: RTGS Implications for Liquidity Management

Introduction of RTGS (in place of the current end of the day gross settlement systems) could bring significant changes in the working and the intra-day liquidity requirements of the money market, which also has important implications for monetary and liquidity management. This can be explained by detailing the mechanism of these two payment systems.

In the traditional end of the day gross settlement system, the balances of the settlement accounts are worked out at the day end, and thus provide a netting off effect, and the liquidity requirement for settlement is much lower than banks' gross liabilities. Notwithstanding this, as settlements are made on real time basis (both transactions and settlements are synchronized) in RTGS, this might immensely increase the liquidity requirements during the day (for settlement purposes). However, it may be important to note that the end of the day liquidity requirements would remain the same in both the systems (keeping all other factors equal).

In international practice, generally central banks provide the intra-day liquidity facility (ILF) to financial institutions for settlements in RTGS. As common in almost all the countries with an RTGS system in place, SBP is also planning to implement ILF through reverse repos against government securities. While the implementation of RTGS will help in forecasting the interbank liquidity more appropriately, monetary managers will have to strike a balance between the intra-day liquidity requirements for settlement and liquidity management to ensure the effective transmission of the monetary policy stance.

Activity at the SBP Discount Window

During FY05, banks not only sourced the SBP discount window more frequently, but the average discounting amount per visit also increased substantially compared to the corresponding period of FY04 (see **Table 9.3**). Several factors were responsible for this relative decline in interbank liquidity in FY05: (a) a larger absorption of liquidity by SBP to support its monetary stance in the current year; (b) higher amount of credit given to the private sector with a relatively slower deposit growth in FY05 (except in December 2004); (c) shift in the direction of SBP's forex interventions, i.e. from net buying to net selling of foreign exchange in the interbank market during FY05; (d) net retirement of forex loans in FY05.

Table 9.3: Activities at the SBP Discount Window

billion Rupees

	No. of visits to the discount window		Total amount of discounting		Average per visit	
	FY04	FY05	FY04	FY05	FY04	FY05
July	-	1	-	0.7	-	0.7
August	-	2	-	10.6	-	5.3
September	-	8	-	84.8	-	10.6
October	2	6	10.5	63.3	5.2	10.6
November	1	3	0.4	14.1	0.4	4.7
December	-	-	-	0.0	-	-
January	1	14	1.4	110.3	1.4	7.9
February	2	-	8.3	-	4.2	-
March	-	5	-	21.7	-	4.3
April	-	1	24.7	0.8	6.2	0.8
May	1	9	1.2	70.8	1.2	7.9
June	-	9	-	112.8	-	12.5
Year	11	58	46.5	489.9	4.2	8.5

Secondary Market Activity

FY05 saw a further deepening of the secondary market for government securities. The average daily trading volumes of government papers increased from Rs 15.2 billion in FY04 to Rs 23.2 billion during FY05 (see **Table 9.4**).¹¹

When compared to FY04, the trading shares of the 3 and 6 month papers increased in FY05, while the share of the 12 months' paper saw a sharp decline. This is understandable as the trend closely follows the outcomes of T-bills auctions during FY05. As mentioned earlier, in the primary market for T-bills, a larger activity was seen in shorter-term maturities and in case of 12 month T-bills SBP accepted a very nominal amount.¹²

Table 9.4: T-bills Secondary Market Trading

billion Rupees				
	3-month	6-month	1-year	All tenors
FY04				
Average	0.8	2.6	11.7	15.2
Total	227.5	773.3	3,428.5	4,429.3
Maximum	9.2	17.7	39.8	48.1
Minimum	0.0	0.0	1.4	3.6
FY05				
Average	12.4	7.6	3.2	23.2
Total	3,654.1	2,228.8	954.7	6,837.6
Maximum	133.0	82.0	13.8	143.6
Minimum	0.1	0.0	0.0	1.6

9.2.2 Bond Market

Government Bond Market

In sharp contrast to FY04, during FY05 the trading activity of PIBs in the secondary market fell sharply. Two factors were primarily responsible for this development. First, no fresh supply was added to the existing PIB stock through the primary market, as all bids were rejected in each of the three auctions conducted during FY05. Second, in order to avoid mark-to-market losses in a rising interest rate environment on large PIB holdings, banks chose to shift a substantial portion of their PIB holdings to the "Held to Maturity" category.¹³

Primary Market for PIBs

During FY05, there were two distinct features observed in the primary market for PIBs. First, in sharp contrast to the amount of Rs 107.7 billion borrowed through PIBs in FY04, government targeted to borrow only Rs 11.0 billion in FY05. Second, it was for the first time that the government announced in advance the quarter-wise targets of its borrowing through PIBs (see **Table 9.5**).¹⁴

Table 9.5: Targets of PIBs' Auctions in FY05

	Tenors	Targets	
		Aggregate	Tenor-wise
		billion Rupees	
	in years		
Q2	3, 5 & 10	3.0	1.0 billion in each
Q3	3, 5 & 10	3.0	1.0 billion in each
Q4	3, 5, 10, 15 & 20	5.0	1.0 billion in each

Both the policy steps were seen as positive moves by the government, particularly in a situation when the market was expecting a sharper rise in interest rates than desired by SBP. While the higher government borrowing could have fueled market expectations for an even sharper increase in short-term interest rates, the information regarding government's period-wise long-term funding needs

¹¹ It may be important to note that these transactions also include repo transactions. Historical data for outright trading is not available for comparison.

¹² As shown in Table 9.1, SBP accepted only Rs 70 billion in the 12 month T-bills auctions in FY05 against Rs 241 billion in the previous year.

¹³ By end June 2004, banks held a substantial amount, almost 57 percent of the total outstanding issues, of PIBs. Rising interest rates could have potentially turned their investments into huge capital losses, especially for some small banks. To prevent the occurrence of such losses, SBP withdrew the mark to market requirement on banks' PIBs holdings in the "Held to Maturity" category (for details, please see BSD Circular No 14 dated September 24, 2004).

¹⁴ The government announced a quarter-wise plan and the maturity-wise break-up of PIBs auctions in October 2004.

helped the market in a better management of their funds, and in forming more realistic expectations about the movement in interest rates over the long-term. To put this in perspective, the surprise auctions of hefty amounts during FY04 created confused market expectations for a rise in both the short and long-term interest rates, particularly in the second quarter of the year.¹⁵

However, despite the small and pre-specified targets, the market response remained weak in all the three auctions of PIBs conducted during FY05. This was particularly true in the second and third auction, when not only were the bids made at very high rates but the offered amount was also significantly below the target (see **Table 9.6**).¹⁶ In order to avoid a sharp jump in long-term interest rates, SBP scrapped all the three auctions of PIBs.

Secondary Market Activities

As mentioned earlier, rejection of all the three PIB auctions by SBP and banks' decision to hold around 60 percent of their PIBs stock until maturity reduced the supply of long-term paper in the market.¹⁷

The fall in the supply of PIBs effectively means that these bonds are no longer appropriate benchmarks for long-term market yields (current prices in the secondary market now probably incorporate scarcity premiums). However, at the same time, the scarcity of PIBs provides an opportunity for corporates with long-term funding needs to issue long-term bonds. Demand for a long-term saving instrument is likely to increase due to the expected heavy maturities of National Saving Schemes (NSS) instruments and Federal Investment Bonds (FIBs) in the next couple of years. A part of these maturities may not be reinvested in NSS given that institutional investment in these instruments was banned in March 2000. Further, the increased mismatch in the maturity profile of the assets and liabilities of banks may help the development of the derivatives market in Pakistan, which is currently at a nascent stage (see **Section 9.4**).

Despite the decline in the supply of PIBs, the trading volumes in the secondary market increased during FY05 (see **Table 9.7**).¹⁸ However these activities were largely confined to Repo transactions. Anecdotal evidence indicates that the outright trading of PIBs was less than 5 percent of the total daily trading volumes of the paper.

Table 9.6: PIB Auctions (3, 5 & 10 years maturity)

Rupees			
	3-year	5-year	10-year
18-Aug-04			
Max. quote	101.6	102.8	101.0
Min. quote	99.7	100.0	98.3
Last cut-off	104.5	107.1	104.4
Amt. offered (bln)	1.7	1.2	1.5
Amt. accepted (bln)	-	-	-
12-Nov-04			
Max. quote	101.2	101.9	101.7
Min. quote	98.7	98.0	96.7
Last cut-off	104.5	107.1	104.4
Amt. offered (bln)	0.4	0.7	0.8
Amt accepted (bln)	-	-	-
28-Mar-05			
Max. quote	97.7	94.9	91.9
Min. quote	96.0	96.9	97.4
Last cut-off	104.5	107.0	104.4
Amt. offered (bln)	0.2	0.3	0.5
Amt accepted (bln)	-	-	-

Table 9.7: PIBs Secondary Market Trading

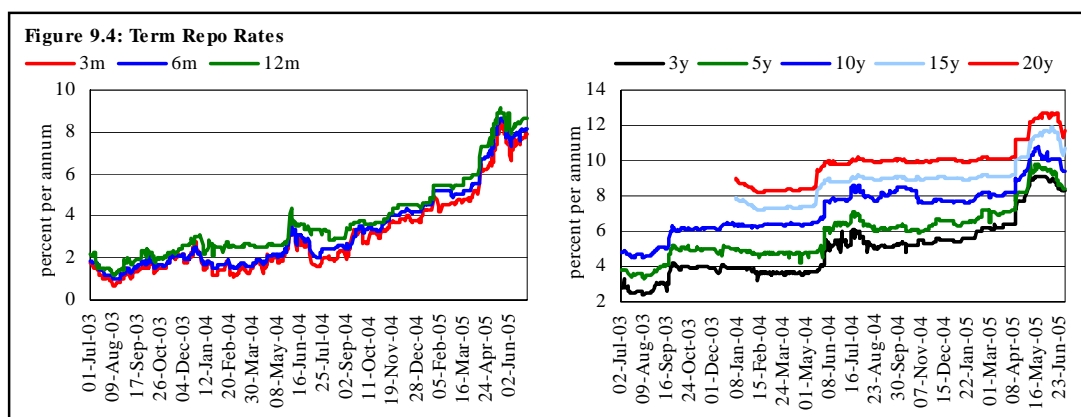
billion Rupees		
	FY04	FY05
Average	14.7	17.2
Total	4,266.0	4,940.7
Maximum	52.7	37.0
Minimum	0.0	0.0

¹⁵ For details, please see "Financial Market Review 2003-2004", State Bank of Pakistan.

¹⁶ Against the target of Rs 3.0 billion in each, offered amount was only Rs 1.8 billion and Rs 1.1 billion in the second and third auction, respectively.

¹⁷ During FY05, Rs 24.8 billion of the previously issued PIBs were matured.

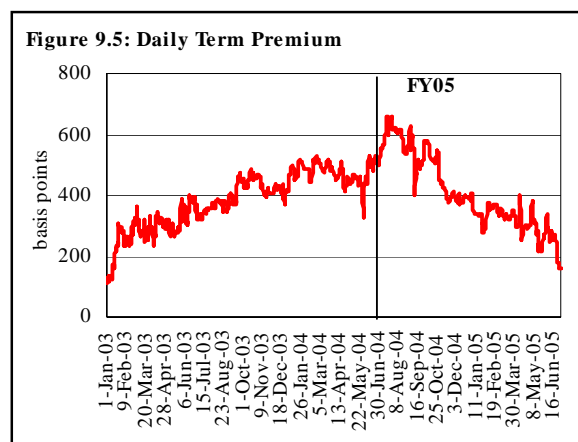
¹⁸ As mentioned earlier, during FY04 around Rs 108 billion PIBs were sold in the auctions.



Yield Structure

While short-term rates registered a continuous upward movement, long-term interest rates remained almost stable during the first nine months of FY05 (see **Figure 9.4**). With the 150 basis point increase in the SBP discount rate in April 2005, PIBs' rates also registered an increase, however the increase was lower than that on the T-bills rates. This resulted in a flattening of the yield curve. As shown in **Figure 9.5**, the term premium which had started to decline since the beginning of FY05, inched up to its end-Jan 2003 level by the end of FY05.

However, the flattening of the yield structure due to a relative stability in long-term interest rates might not be a true reflection of the market view in light of the factors mentioned above.



Corporate Bond Market

After a sharp decline in the previous year, listings of new debt instruments in the corporate debt market increased during FY05. Twelve corporate debt instruments, worth approximately Rs 15.6 billion, were listed on the stock exchange (see **Table 9.8**) in FY05, in contrast to six instruments worth Rs 3.3 billion in FY04. However, the volumes of activity in the corporate debt market still remained low when compared to FY03 and FY02.¹⁹ Moreover, this renewed interest in the corporate debt market was primarily the outcome of SBP's regulation which enables commercial banks to enhance their paid-up capital and to improve capital adequacy requirements, by allowing them to issue term finance certificate (TFCs) to generate subordinated debt which becomes a part of their tier II and tier III supplementary capital.²⁰ In fact, out of twelve new listings in FY05, seven were launched by commercial banks, while two were issued by non-bank financial institutions.

¹⁹ 17 and 21 new TFCs were issued in FY02 and FY03, respectively.

²⁰ BSD Circular No 12 dated August 25, 2004 not only asked banks and DFIs to hold capital against market risk, but also raised the minimum paid-up capital requirement from Rs 1.0 billion to Rs 2.0 billion. In order to meet this capital requirement, banks are allowed to issue Term Finance Certificates (TFCs), which become part of the subordinated debt under tier 2 supplementary capital if the certificate has a maturity of more than 5 years. TFCs of a tenure of less than 5 years are included in the Tier 3 supplementary capital.

Table 9.8: Corporate Debt Issues in FY05

Amount in million Rupees

Company	Issue Date	Coupon Rate	Tenor (Years)	Amount
Bank Al-Habib	15 Jul 2004	6-Month KIBOR+1.5%; Floor 3.50%, Cap 10.00%	8	1,350
Trust Leasing	16-17 July 2004	6-Month KIBOR+3% Floor 6.00%, Cap 10.00%	5	375
United Bank Limited	09-10 Aug 2004	Fixed 8.45%	8	2,000
Bank Alfalah Limited	22-23 Nov 2004	6-Month KIBOR+1.5% No Floor, No Cap	8	1,250
Jahangir Siddiqui & Co. II	20-21 Dec 2004	Fixed 8.29%	5	500
Askari Commercial Bank	3-4 Feb 2005	6 month KIBOR + 1.5 %	8	1,500
Prime Commercial Bank	9-10 Feb 2005	6 month KIBOR + 1.9 % 3-Month KIBOR+3.25%	8	800
Chanda Oil & Gas Limited	15-16 Feb 2005	Floor 8.95%, Cap 13% 6 month KIBOR + 2.5%	7	1,000
Naimat Basal Oil and Gas Securitization	11-12 Apr 2005	Floor 7.5%, Cap 13%	5	1,200
Union Bank Limited	14-15 Mar 2005	Fixed 9.49%	8	2,000
Soneri Bank Limited	04-05 May 2005	6-Month KIBOR+1.6% No Floor, No Cap	8	1,200
TeleCard	26-27 May 2005	6 month KIBOR + 3.75% No Floor, No Cap	6	2,400

A look at the structure of coupon rates provides interesting insights. First, it was for the first time since FY02 that fixed coupon rate TFCs were issued during FY05. As shown in **Table 9.9**, 3 out of the 12 TFCs (in FY05) were issued at a fixed rate. This is understandable as some corporates sought to lock-in rates in a rising interest rate environment. Second, a distinct feature of the coupon rate structure of the corporate bonds issued in FY05 was that all the 9 floating rate bonds were pegged to the short-term KIBOR rates (see **Table 9.9**), while in the previous years the benchmark was either the SBP discount rate or the PIB rates.

Table 9.9: Overall Composition of Listed TFCs

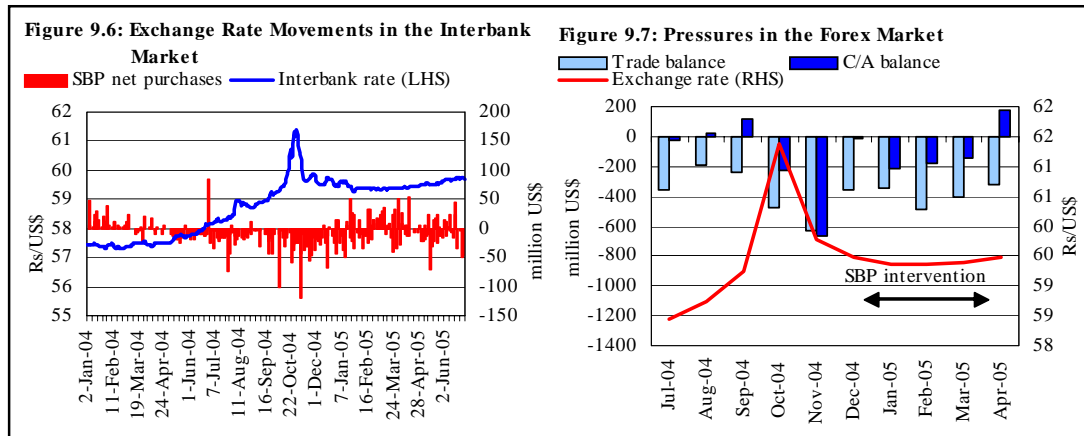
	FY02	FY03	FY04	FY05
Total issued	17	21	6	12
Fixed	4	0	0	3
Floating	13	21	6	9
- Anchored to discount rate	8	13	3	0
- Anchored to PIBs	5	8	2	0
- Anchored to profits	0	0	1	0
- Anchored to KIBOR	0	0	0	9

Despite the fact that the short-term interest rates were volatile and moved both upward and downward, the discount rate remained fixed from November 18, 2002 to April 11, 2005. This probably discouraged the use of the discount rate for pricing long-term bonds. The fact that none of the bonds issued during FY05 were benchmarked against PIBs reinforced the view that these government bonds are no longer considered to be a good benchmark for long-term rates. As mentioned in the previous section, PIBs' liquidity and (outright) trading volumes in the secondary market fell substantially during FY05 which also explains why the corporates did not use the PIB rates for pricing their long-term bonds.

9.2.3 Forex Market

During FY05, the movement in the Rupee-dollar exchange rate can be divided into two distinct periods. The first period was from July to October 2004, during which the Rupee declined steadily against the US\$ and reached a four-year low of Rs 61.4 per US\$ by end- October 2004. The second phase started from the beginning of November 2004, when the Rupee started gaining strength and stabilized at around Rs 59.7 per US\$ by end-June 2005 (see **Figure 9.6**). As a result, in net terms the

value of the Rupee depreciated by 2.6 percent during FY05, after having suffered a 5.2 percent decline from July to October 2004.



The depreciation pressure on the Rupee during the first four months of FY05, was primarily driven by the widening trade deficit which created self-enforcing expectations of a further depreciation of the local currency. It is important to note that despite the current account surplus during August and September 2004, the Rupee continued to depreciate (see **Figure 9.7**). While surprising, this can be explained on the basis of the rising foreign currency deposits with simultaneously declining foreign currency loans, which was primarily an outcome of the expected depreciation of the local currency.

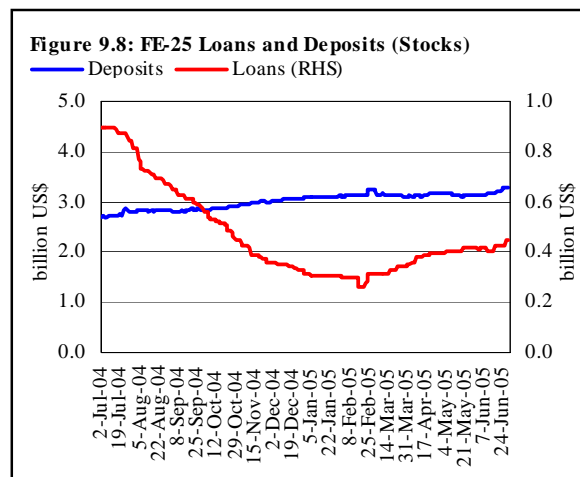
It may be noted that FE-25 deposits which are accounted for in the current account balance, do not always add to the forex liquidity in the interbank market. Specifically, banks are not allowed to trade the foreign exchange mobilized under FE-25 deposits and these deposits only increase the forex liquidity in the interbank market if banks extend forex loans (see **Box 9.2**). On the other hand, retirement of foreign currency loans reduces the interbank forex supply.

With the expectation of Rupee depreciation, forex loans declined, while FE-25 deposits increased (see **Figure 9.8**). Moreover, these expectations induced importers to opt for forwarding bookings and also for a strategy to import sooner than later, and created incentives for exporters to delay their export proceeds. The combined impact of these elements resulted in an unusually large monthly current account deficit and a sharp

Box 9.2: Foreign Currency Loans and Forex Liquidity in the Interbank Market

Banks are allowed to extend foreign currency loans only to importers and exporters. In practice, when banks extend forex loans against export documents, generally exporters immediately sell foreign exchange in the interbank market to avail Rupee liquidity. Hence forex loans augment the forex supply by expediting the supply of dollars which is otherwise realized in future when exports bills payments materialize.

On the other hand, importers can delay the dollar demand by availing foreign currency loans to settle their import bills.



depreciation of the Rupee in October 2004 which also threatened to cause a run on the Rupee. This potential risk led SBP to make a formal commitment to supply foreign exchange for oil imports.²¹ Accordingly, from November 2004, SBP started to absorb a significant portion of the foreign exchange demand in the market. Simultaneously, from November 1, 2004 SBP also introduced some temporary restrictions in forex market transactions to overcome speculative activities (see **Box 9.3**).

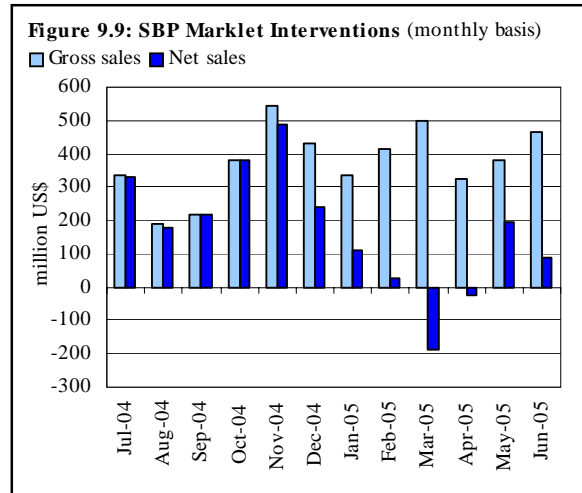
The public and quantifiable commitment by SBP immediately helped in containing public expectations of a further depreciation in the Rupee. In fact, not only did the SBP injections add to market liquidity, the increase in liquidity was further reinforced by changes in market expectations (which substantially lowered the demand of foreign exchange). The resulting increase in inter-bank dollar liquidity allowed the Rupee to appreciate, recovering some of its losses incurred earlier.

It is interesting to note that SBP had also been supporting the market even prior to this formal announcement. In fact the monthly *net* interventions pre-November 2004 had, at times, been larger than those from November 2004 onwards (see **Figure 9.9**),²² but the Rupee had continued to face significant depreciation pressures in the interbank market during the former period. This was probably because of the uncertainty about the quantum of SBP interventions as well the continuity of these interventions in future. Thus the impact on demand continued to be driven by the visible weakening of the trade account. However, once the uncertainty was dispelled by the formal announcement, SBP interventions became far more effective.

Stepping back, SBP’s decision to support the market only partly and to allow a gradual depreciation of the exchange rate during the initial four months of FY05 was primarily due to the weakening balance of trade and rising inflation.²³ If SBP had not allowed the rupee to depreciate, the trade

Box 9.3: SBP Measures to Curb Forex Outflows
 Vide EPD’s F.E. Circular No 16 dated November 1, 2004, SBP introduced the following measures to subside the speculative pressures on the exchange rate:

- (1) The cut-off timings of banks’ treasuries were restricted;
- (2) All FE-25 loans against intended exports, maturing on or after November 02, 2004, are to be settled only through the realization of export proceeds or remittances from abroad;
- (3) The remittance of advance payments is only allowed to the extent of 50 percent of the estimated C&F value of the total quantity of goods intended to be imported, only against irrevocable letters of credit covering import of industrial capital goods, plant, machinery and equipment for manufacturing excluding spare parts; and
- (4) Authorized dealers can provide forward booking only against letters of credit.



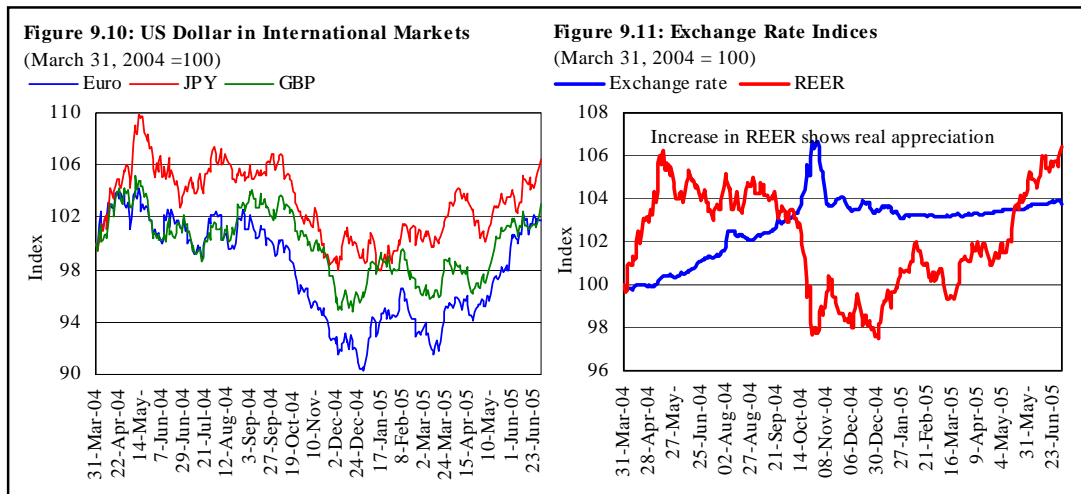
²¹ For details, please see EPD Circular Letter No. 12 / Policy-2004, dated November 1, 2004.

²² During the Jul-Oct 2004 period, SBP made net injections of US\$ 1,106 million, which were much lower at US\$ 726.5 million during November-December 2004.

²³ The distinction between temporary pressures on the exchange rate and deteriorating fundamentals is important, as temporary pressures would encourage the central bank to defend the exchange rate parity, whereas a weakness in the economic fundamentals would likely require adjustments of the exchange rate.

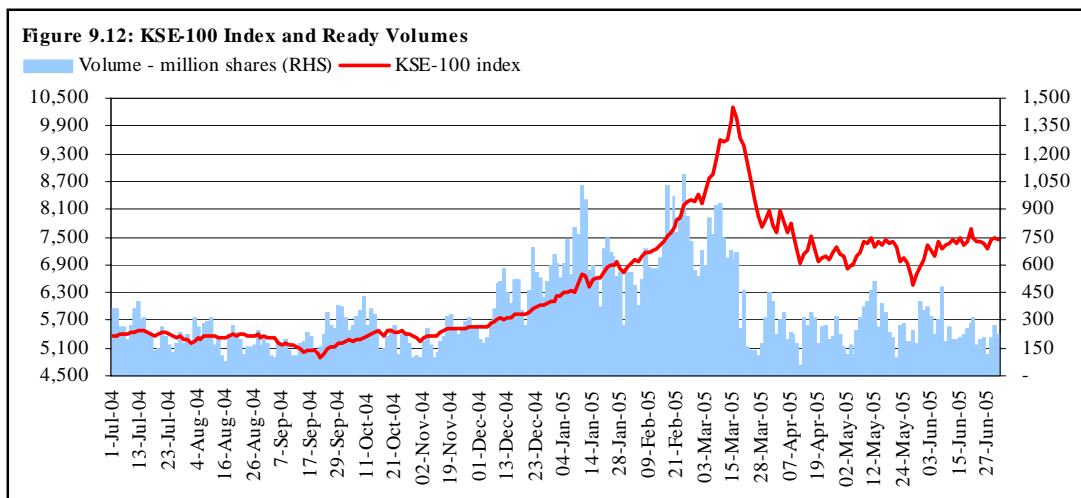
deficit would have widened further. Also, the growing differential between the CPI of Pakistan and its trading partners and competitors would have led to the erosion of competitiveness. On the other hand, allowing a sharp adjustment may have resulted in overshooting exchange rate movements. Hence during this period, SBP interventions in the interbank forex market were mainly aimed at containing the pace of the depreciation (i.e. reducing market volatility). However, as expectations for a large depreciation of the Rupee gathered pace, SBP was forced to intervene more visibly.

Ironically, the sharp depreciation of Rupee against the US\$ in October 2004, along with depreciation of the US\$ against major currencies in the international market (see **Figure 9.10**), more than compensated the impact of the rising inflation differential between the domestic economy and its main trading partners. This can be seen by the sharp depreciation in the real effective exchange rate (REER) in October 2004 (see **Figure 9.11**).



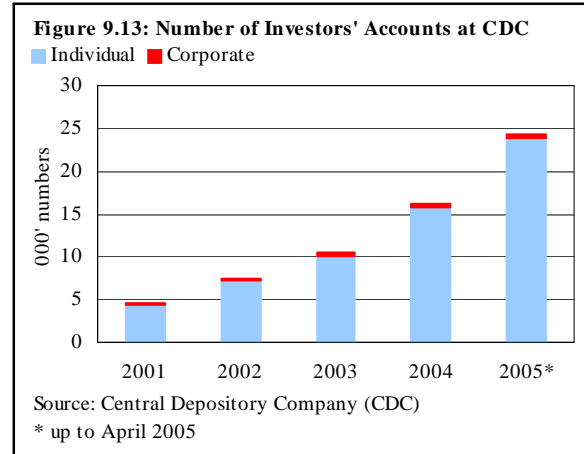
9.2.4 Equity Market

The extended rally at the Karachi Stock Exchange which started in FY03, accelerated further in FY05, especially from December 2004 to mid-March 2005. By March 15, 2005 the KSE-100 index touched a record high level of 10,303 points (see **Figure 9.12**), showing a 95.2 percent growth since end-June



2004. Moreover, the number of investors' accounts maintained with the Central Depository Company (CDC) showed an exceptional growth of almost 82 percent²⁴ during the first 10 months of FY05 (see **Figure 9.13**). While corporate accounts increased by 16.5 percent, individual accounts registered a growth of 84.6 percent in this period.

However, the index saw a massive correction in the second half of March 2005 and plunged by 2,706 points in just 13 sessions, with the average daily trading volumes falling to just 290 million shares from 725 million shares in the initial two weeks of March FY05. Since April 2005, the KSE-100 index has remained volatile and has recorded fluctuations in the range of 6,400 to 8,100 points. Moreover, average trading volumes have also declined from around 378 million shares per day in the first three quarters of FY05 to 264 million shares per day during the last quarter of the year.



Despite this decline, the KSE-100 index registered a robust 38.2 percent growth during FY05. Market capitalization increased from 26.0 percent in FY04 to 34.2 percent in FY05. However, the average daily turnover declined to 352 million shares in FY05, from around 388 million shares in the previous year.

Factor Responsible for the Spectacular Rise and the subsequent Market Correction

A part of the phenomenal rise of over 95 percent by the KSE-100 index from July to mid-March FY05 is attributed to favorable market fundamentals, including: (a) increased investor confidence as the economic management of the country (and therefore economic performance) improved; (b) the continued inflow of remittances which resulted in increased financial savings; (c) the relatively low yields on other financial assets; (d) Improved corporate profitability;²⁵ (e) expectations of an early privatization of profitable listed public sector corporates; and (f) high international oil prices and oil and gas discoveries in the country (that pushed up the prices of index-heavy energy stocks). Moreover, improved relations with India, domestic political stability, and continued assistance to Pakistan by bilateral & multilateral donors further reinforced positive investor sentiments. All of the above factors contributed to the improvement in Pakistan's sovereign credit rating,²⁶ and facilitated an increase in portfolio investment during FY05.

However, improved fundamentals alone do not completely explain the phenomenal growth in the KSE-100 index, especially from February to mid-March 2005.²⁷ A comparison of regional price-earning (P/E) ratios suggests that by mid-March the KSE-100 was clearly quite (see **Table 9.10**) over-valued, even when compared to the better-rated markets in the region. It seems likely that in this

²⁴ This number should be taken only as being *indicative* of the rise in investor interest as individual investors can also open sub-accounts with brokers.

²⁵ The growth momentum in corporate profitability seen during FY04, continued into FY05 as well. This can be seen in the available corporate results for the first quarter (for 510 companies) that (in aggregate) saw profitability rise by a handsome 47.3 percent YoY.

²⁶ The long term rating of Pakistan by Moody's was improved to B3 from B2, whereas S&P also improved its rating from B to B+.

²⁷ In this short period, the KSE-100 Index recorded a sharp increase of 50 percent, from 6,869 points at February 1, 2005 to 10,303 points on March 15, 2005.

period the market was being driven principally by excessive optimism, and an asset bubble was probably in formation.²⁸

Unfortunately many speculators had taken positions in anticipation of being able to settle their transactions (at a loss if necessary), but did not have the necessary funds to take delivery of their *futures* positions.

Several factors, including withdrawal of funds by COT financiers, the *lock-in* effects of circuit breakers, excessive buying in the ready market and selling in the futures market by certain operators, altogether contributed significantly to the mid-March 2005 market decline. In this regard, the possibility of market manipulation cannot be ruled out as identified in the Report of the Task Force²⁹ constituted to review the stock market situation.

Table 9.10: Market Valuations and Credit Rating

	Credit rating ¹	PE ratio ²	
India	BB+	18.39x	SENSEX 30 index
Pakistan	B+	18x to 20x	KSE-100 index
Philippines	BB-	15.23x	PCOM index
Indonesia	B+	13.61x	JCI index
Hong Kong	A+	14.99x	HIS index
Malaysia	A-	14.68x	KLCI index
Taiwan	AA-	13.08x	TWSE index
Thailand	BBB+	10.00x	SET50 index

¹ Represents rating of foreign currency long term debt by S&P

² As on mid-March 2005

Source: Bloomberg, except for Pakistan
P/E ratio for Pakistan is based on a small survey of selected brokerage houses.

Crisis Management

With the decline in the KSE-100 index around mid-March 2005, the investors with highly leveraged positions required immediate financing to meet their commitments. This raised the risk of a major default, probably with a domino impact on the market. Both the SECP and SBP acted jointly to prevent this systemic risk. In particular, in order to prevent a panic situation, SECP raised the cap on *COT* rate from 19 percent to 24 percent and subsequently to 30 percent.³⁰ In addition, the KSE management had to arrange for two additional days of *COT* trading (26th and 27th of March) in order to ensure settlements and to provide investors time to arrange financing. SBP also removed the ceiling on bank's financing in the equity market, which was earlier set at 20 percent. This was aimed at providing financing to leveraged investors who were facing difficulties in arranging funds for settlement. Moreover, on April 22, 2005 SECP extended the deadline for the complete phasing out of the *COT* until August 26, 2005 (see **Box 9.4**).³¹ All these measures helped in avoiding a sharper downward movement in the KSE-100 index which then stabilized at around the 7,500 points level towards the end of FY05 (see **Figure 9.12**).

²⁸ Indeed at its FY05 peak, index heavy-weights such as OGDC and PTCL (with a combined index weight of over 40 percent in the KSE-100) were trading at historic P/E multiples of over 25x, and 20 x respectively, which is difficult to justify on the basis of fundamentals alone.

²⁹ In order to investigate the developments in the stock market during the third quarter of FY05, the chairman SECP set up a taskforce on April 12, 2005. The report prepared by the committee is available on SECP's website.

³⁰ The KSE issued directives which increased the limit of the *COT* premium (rate) from 19 to 24 percent for a period of two weeks, starting from March 25 to April 08, FY05. Source: KSE/N-1912 dated March 25, 2005.

³¹ Earlier *COT* was planned to be phased out completely by June 3, 2005. As an interim measure, the Continuous Funding System (CFS) has replaced *COT* financing from August 22, 2005.

Box 9.4: Margin Financing and Capital Market

In September 2004, SECP announced a gradual phase out plan for Carry Over Trade (COT), commonly known as “badla”, by June 3, 2004¹ and COT was expected to be replaced by margin financing. This was aimed at improving the soundness of the equity market by reducing the systemic risk inherent in *badla* transactions.

It is important to understand that COT provides opportunities for speculative transactions. In the extended stock market rally which began from FY03, it was observed that the leveraged trading through the traditional mode of *badla* was often larger than the trades in the normal “*ready*” market. This was especially true during the December 2004 to mid-March 2005 period, when the KSE-100 index saw a sharp upsurge, primarily due to the substantially large leveraged position taken by the investors in the equity market. As mentioned earlier, changes in market sentiments resulted in a steep fall in the stock prices in a short span of time. Moreover, while the *badla* transactions are documented, the sources of *badla* financing remain obscure, and fluctuations in *badla* costs have been alleged to be the cause of market instability.²

Replacing *badla* with margin financing is expected to bring greater stability to the domestic equity market. Following are some salient features of margin financing which explain how it reduces the possibility of systemic risk in the market:

- While *badla* financing can be obtained subsequent to the purchase of shares, and requires no collateral other than the shares purchased, margin financing requires the availability of the margin (collateral) *before* a purchase can be transacted.
- Only those institutions and brokers which are registered with the SECP and are compliant with the minimum paid-up capital requirements are allowed to extend margin financing to customers.
- Banks and DFIs can extend financing only to those brokers that are constituted as limited companies and are registered with a credit rating agency. Also, banks and DFIs have to comply with SBP’s Prudential Regulations under which the aggregate credit extended cannot exceed 10 times the paid-up capital and reserves of the broker.
- Brokers and investors are required to maintain separate accounts with the Central Depository Company and brokers are also required to enter into a margin agreement with their clients which includes conditions regarding the pledge of securities bought on behalf of the investor and maintenance of the minimum margin.
- Banks and DFIs can decide whether to extend credit for the purchase of scrips of different companies at their sole discretion.³

Another possible advantage of margin financing over *badla* is that the former may help in improving the transmission of monetary policy to prices in the capital market.

¹ On April 22, 2005, the deadline for the complete phase-out of COT was extended till August 26, 2005, and subsequently the SECP on 9th July 2005 imposed a cap on COT financing at Rs. 12 billion. As of August 22, 2005, COT has been replaced by the Continuous Funding System (CFS) as an interim measure.

² In order to curtail the risk of an induced fall in the market, the KSE introduced regulations in 2002 restricting the abrupt withdrawal of COT funding from the market.

³ However, it is envisaged that the number of scrips eligible for margin finance will increase substantially, potentially helping to increase liquidity and depth in the equity market.

9.3 Role of Financial Markets in Monetary Policy Transmission Mechanism

Financial markets play a crucial role in transmitting monetary policy signals to the real economic variables in an economy. The eventual impact of changes in monetary policy instruments (such as policy or benchmark interest rates) on the business cycle and inflation can be divided into two stages. At the first stage it depends upon how the changes in monetary policy variables are transmitted to other interest rates (e.g. banks lending and deposit rates), credit availability, exchange rates, and asset prices in the economy, while at the second stage it is determined by how these variables affect economic activity. The role of financial markets in the monetary transmission mechanism (MTM)

becomes increasing vital with a rising degree of financial liberalization, especially when central banks start relying on indirect monetary policy tools.

The steps taken to liberalize the financial sector in Pakistan, especially since the year 2000, have also improved the inter-linkages among different interest rates as well as the degree of integration among financial markets. The discussion which follows is based on the first stage of MTM, focused particularly on explaining how the interest rate structure and prices in the forex market are currently linked with benchmark Rupee interest rates in Pakistan.

9.3.1 Transmission to Major Interest Rates

As mentioned earlier, the reforms taken to rationalize the financial structure in the country helped in improving the inter-linkages among interest rates on major savings and borrowing instruments in Pakistan. **Table 9.11** summarizes the details of how some important interest rates are currently linked with rates on government papers.

Table 9.11: Important Interest Rates linked with T-bills and PIBs Rates

	Linked with	Linked by	Revision period
Export Finance Schemes (EFS)	6-m T-bills	Formula	Monthly
Locally Manufactured Machinery (LMM)	6 & 12 m T-bills and 5 Y PIBs	Formula	Annual
Long-term financing of export oriented projects (LTF-EOP)	12 m T-bills, and 3 & 5 Y PIBs	Formula	Annual
Agricultural credit line by SBP (to PPCBL)	6-month T-bills	Formula	Continuous
Commercial banks lending rates	Interbank rates and liquidity	Market mechanism	-
Commercial banks deposit rates	Interbank rates and liquidity	Market mechanism	-
National Saving Schemes (DSCs, SSCs, RICs)	3, 5, 10 year PIBs	Formula	6 monthly
Other financial institutions deposits rates	Interbank rates and liquidity	Market mechanism	-
Other financial institutions lending rates	Interbank rates and liquidity	Market mechanism	-
TFCs and corporate bond rates	PIBs/T-bills/DR/KIBOR	Benchmark	-

Note: Some of these instruments also have fixed rates

It is encouraging to note that the rates on NSS have been rationalized during the last five years and are currently linked with PIB yields (though revised with a lag of 6 months). As investments in NSS have a substantial (though declining) share in the overall financial savings in Pakistan, linking their interest rate structure with monetary policy instruments was vital in improving MTM in the country.³²

Similarly, the various financing facilities provided by SBP are now linked with benchmark interest rates and changes in the monetary policy stance are also transmitted to the pricing of credit to priority areas as well. This allows the market mechanism to work, at least partially, in efficiently allocating market resources. Moreover, during the last couple of years, banks' lending behavior has also seen an important structural change which may improve the speed of transmission to lending rates. Now a substantial part of banks' credit is on floating rates, benchmarked with KIBOR.

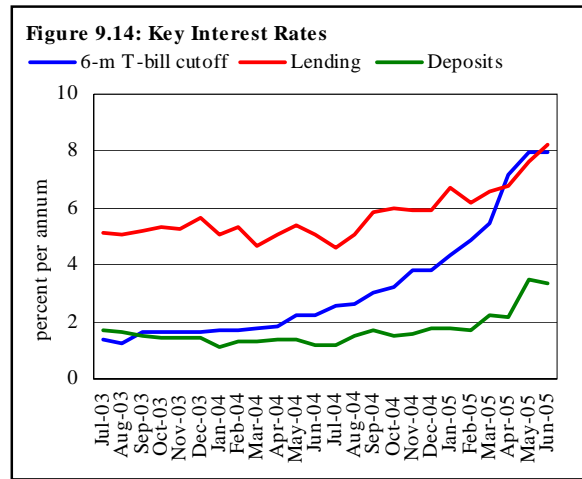
Although it would require a detailed econometric analysis to empirically analyze the extent and speed of monetary transmission to banks' lending and deposit rates (especially if it improves over time), a cursory look at the data suggests that currently the pass-through impact of changes in benchmark interest rates is only partially transmitted to banks' lending and deposit rates. During FY05, although both the weighted average lending and deposits rates followed the rising trend of T-bills rates, the extent of increase remained weak. As shown in **Figure 9.14**, while 6-month T-bills rates (in auction)

³² To put this in perspective, banks often used the high yield on NSS instruments as an argument for not reducing their lending rates (in periods when SBP had an easy monetary policy stance).

saw an increase of 576 basis points during FY05, banks' weighted average lending and deposit rates increased by only 316 and 219 basis points in this period, respectively. The fact that banks revise their offered rates on deposits on a six-monthly basis is an important reason for the slow adjustment.

9.3.2 Transmission to Exchange Rates

The introduction of foreign currency loans has played a vital role in increasing the integration of money and forex markets since 2002.³³ While domestic customers were already allowed to hold deposits in both local and foreign currency, forex loans provided an opportunity for traders to substitute between liabilities in local and foreign currencies. This has improved the likelihood of the interest rate parity condition to hold in Pakistan. In other words, now a sharper increase in domestic interest rates (as compared to LIBOR) may result in an appreciation, or at least a reduction of downward pressures on the local currency more pronouncedly. Similarly, the narrowing gap between local and foreign currency interest rates may put upward pressures on the value of the domestic currency. On the other hand changes in exchange rate expectations may also impact the interest rates of the local currency.



Developments since 2002 in the forex and money markets also provide evidence of improved linkages between the two markets. For example in FY03, with the continuous appreciation of the Rupee and a relatively higher domestic interest rate environment, traders were borrowing heavily in foreign currency. As explained in **section 9.2.3**, these loans were adding forex supply in the interbank market, which resulted in exerting further appreciation pressure on the Rupee. As SBP was aiming for a gradual appreciation of the local currency and buying dollars from the market, this in turn increased the Rupee liquidity in the interbank market. Moreover, a partial sterilization of forex purchases by SBP led to a fall in Rupee interest rates as well. Similarly, in the initial two months of FY04, when a sharp fall in the local currency interest rates substantially narrowed the interest rate differential, this raised pressure on the local currency, as traders quickly switched foreign currency (FE-25) loans with Rupee funding, effectively draining liquidity from both the forex and Rupee interbank markets.³⁴

9.4 Derivatives

While the rising degree of integration of local markets with international financial markets provides opportunities, it also increases the risk factor for domestic economic agents. Moreover, the operating environment for financial institutions is becoming more and more competitive and requires them to explore new and innovative avenues for income generation. Financial derivatives provide one such opportunity, and are now widely being used in international financial markets primarily as a tool for hedging risks.

³³ Although banks were allowed from 1998 to extend foreign currency loans to imports and exporters, the demand for these loans started picking up from January 2002, as the Rupee started appreciating against the US\$ in the aftermath of 9/11.

³⁴ Foreign currency loans increased substantially from January 2002. However, very low Rupee interest rates by August 2003 reduced the appeal for forex loans. Since these loans provided forex liquidity in the inter-bank market, declining net loans in turn reduced forex liquidity, and thereby intensified pressure on the exchange rate.

In Pakistan, the use of financial derivatives as a formal means of managing the risk profile of the corporate clients and financial institutions is very recent and currently at a nascent stage. The first recognized derivatives transaction was carried out only in the second half of 2003.

9.4.1 Policy Environment

While derivatives can be a source of potentially large incomes for financial players, at times the use of these instruments can also lead to large scale losses, especially if utilized for speculative purposes. Keeping in view these risks, at the initial stage SBP asked financial institutions, interested in undertaking derivatives transactions with their clients, to seek approval for doing so on a case to case basis. In order to curtail any speculative motive, so far these approvals have been granted strictly for hedging purposes only. Moreover, SBP has also issued the Financial Derivatives Business Regulations (FDBR) in November 2004 to develop a formal Over the Counter (OTC) derivatives market in Pakistan.³⁵

These regulations provide guidelines for transacting OTC derivatives in the country and currently permit three types of derivative transactions: Foreign Currency Options (FX Options), Forward Rate Agreements (FRAs) and Interest Rate Swaps (IRSs). Under these regulations State Bank may grant the status of either Authorized Derivatives Dealer (ADD) or Non Market Maker Financial Institution (NMI) to the eligible financial institutions. However, these institutions have to meet the minimum criteria laid out by SBP for transacting such business. The eligibility criteria takes into account the applicant's capability and capacity to transact derivatives business after detailed on-site and off-site assessments by SBP. After acquiring the desired status, these institutions would no longer be required to obtain approval on a case to case basis for their derivative transactions. By end June 2005, SBP has granted the status of Authorized Derivatives dealer to two banks: Standard Chartered Bank and Citibank N.A.³⁶

9.4.2 Current Status

As mentioned above, the use of financial derivatives is a recent phenomenon in Pakistan. Foreign banks are relatively more active in forex (FX) option transactions. These options not only provide revenue generating opportunities to banks but also help corporate entities in hedging their foreign exchange exposures. In order to hedge their own foreign exchange risks, banks are required to hedge their positions with offshore counterparties. By March 31 2005, the outstanding amount in FX options was around Rs 6 billion, where the major currency transacted was the Euro against the US Dollar.

Interest Rate SWAPS (IRSs) are also being commonly used and provide opportunities to corporate and financial sector entities to hedge interest rate exposures. IRSs have been undertaken both by local private and foreign banks, with corporate and other financial sector clients. The outstanding amount in IRSs was Rs 8.5 billion at end-March 2005. Forward Rate Agreements (FRAs) have also been introduced in Pakistan. These are short-term in nature and the outstanding amount against them was almost nil at March 31, 2005. However, FRAs involving a notional principal of Rs 3.1 billion have been transacted till end March 2005.

³⁵ Please see BSD circular No. 17 dated November 26, 2004.

³⁶ For details, please see Chapter 2 : Financial Infrastructure : An Assessment.