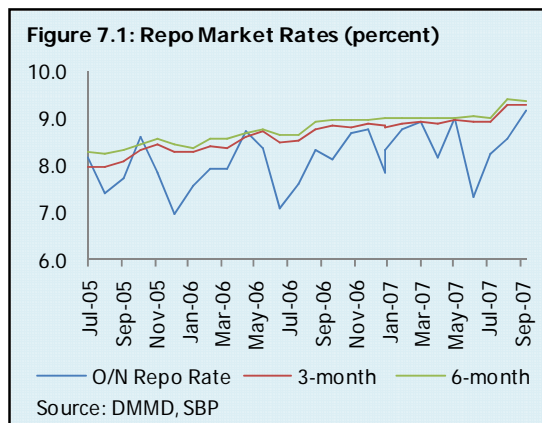


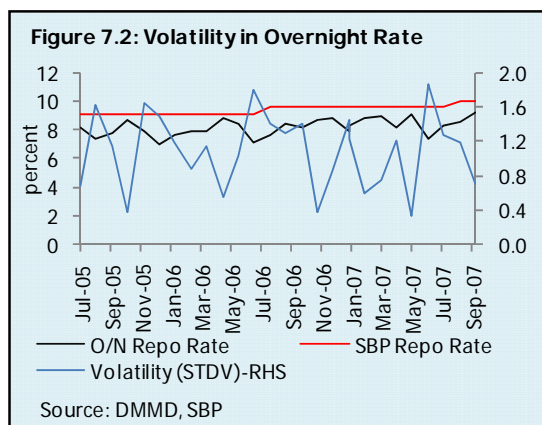
7 FINANCIAL MARKETS

Efficiencies of deep, liquid and open financial markets are a vital source of stability in the financial system. This chapter assesses the developments in the domestic financial markets during FY07.

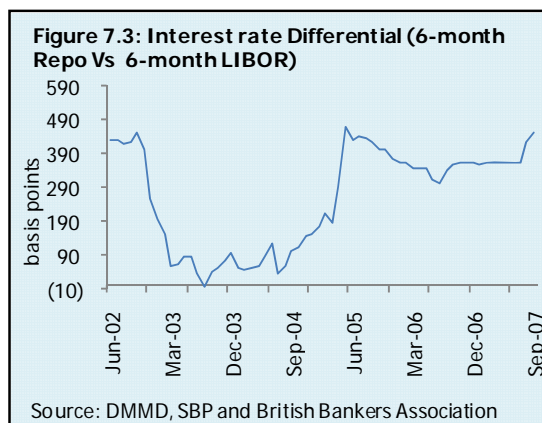
Trends in short term interest rates during the year were reflective of the prevailing monetary stance. FY07 saw an increase of 50 bps in the benchmark 3-day SBP Repo rate, to reach 9.5 percent in July FY07. Following this rate hike, the money market witnessed an increase in other retail interest rates (**Figure 7.1**). Volatility in the over-night Repo rate, reflective of trends in market liquidity, declined during FY07 in comparison with FY06. Proactive liquidity management by SBP was the driving force in reducing this volatility (**Figure 7.2**).



This increase in benchmark interest rates did not significantly impact the exchange rate, which continued to record a steady depreciation until November FY07. Monetary tightening by the US, Japan, and the Euro area in 2006 dampened the effect of the increase in interest rates on the exchange rate. This is also visible from the narrowing down and subsequently stable interest rate differentials (**Figure 7.3**) as depicted in the gap between the 6-month Repo rate and 6-Month LIBOR. However, unlike the money market, exchange rate volatility increased slightly during FY07. Specifically, the standard deviation of the exchange rate movements against the US\$ was 0.20 in FY07, as against 0.17 in FY06. This increase in volatility was primarily due to strong pressure on the Rupee due to speculative tendencies in Q2-FY07. Further pressure on the rupee due to the substantial volume of foreign inflows was prevented by SBP's sterilization operations.



In this back drop, the subsequent discussion is primarily focused on the analysis of the performance of the financial markets and the associated impact on financial stability.



7.1 Money Market Activities

A well-functioning and efficient money market is a vital source of stability for the financial system. It performs two very important functions, i.e. (a) transmission of monetary policy signals with an ultimate impact on inflation and economic growth, and (b) management of inter-bank liquidity. The stability of a liberalized financial system is largely dependent on the presence of deep and liquid markets, which ensure easy access to and timely flow of funds. A liquidity-squeezed and shallow money market can lead to the inability of a bank to fund even short-term liquidity requirements, thus creating potential risks to stability.

The money market in Pakistan has effectively aided the transmission of monetary policy signals in a rapidly changing macroeconomic environment. Besides supporting economic growth, the easy monetary stance prevalent earlier in the decade also generated inflationary pressures in the economy. SBP shifted gears in late FY04 and started to tighten its monetary stance, more markedly from April 2005. Tight monetary conditions since then have had a fair degree of success in arresting the non-food-non-energy component of inflation more effectively, besides anchoring inflation expectations.

FY07 is generally characterized by the simultaneous existence of two factors – a monetary tightening stance along with excess liquidity with banks, though this is more true for H2-FY07. As shown in **Table 7.1**, H1-FY07 was characterized by more frequent OMO absorptions than H2-FY07, while net acceptances (acceptance over and above maturing T-bills) through auctions remained negative.¹ In addition, SBP's commitment to provide foreign exchange for oil payments also helped in the sterilization of the rupee liquidity. While this was largely a strategy to keep liquidity in check in the first half of the fiscal year, larger net acceptances in auctions in H2-FY07 were due to the need for sterilization of liquidity generated through the rising foreign inflows. By H2-FY07 it was quite apparent that these capital inflows were expected to continue, which necessitated the need for sterilization through T-bill auctions and Outright OMOs. In effect, liquidity management through both mechanisms served to reduce the volatility in the O/N interest rates (**Table 7.2**).

Table 7.1: Net outflows through OMOs and Auctions During FY07
billion Rupees

	Auction		OMO		Total outflow
	Maturity	Net Accept	No.	Net Absorp	
H1	403.7	-28.6	43	539.5	510.9
H2	241.9	271.4	26	324.5	595.9
FY07	645.6	242.7	69	864.0	1,106.8

Source: DMMD, SBP

Table 7.2: OMOs and Volatility in Overnight rates
billion Rupees

	OMO's		Overnight Rates	
	No.	Net Absorption	Average	Coeff. Of Variation
FY05	51	567	3.9	0.7
FY06	94	214	7.9	0.2
FY07	69	864	8.5	0.1

Source: DMMD, SBP

The upward revision in the discount rate and CRR/SLR requirements resulted in squeezing the liquidity in July FY07. Given the already high Advances to Deposit ratio and the period required to adjust for the new tiered CRR requirements,² banks felt the liquidity squeeze that resulted in a shift of borrowing towards the call market. As a result the spread between KIBOR and repo rates widened post-July FY07 from their long-term values. These spreads however adjusted back to their previous levels as the market adjusted to these monetary management measures. The longer adjustment period is generally attributed to the co-existence of seasonal credit off-take and a surge in capital inflows.

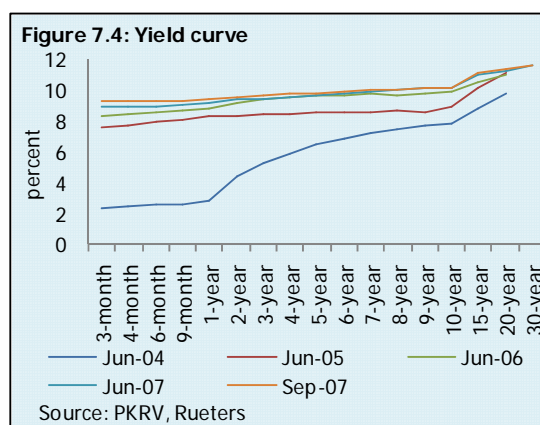
¹ Negative net acceptances also reflect market expectations of a rise in interest rates, as banks offered less than the amount of maturities, and their interest was concentrated in the 3-month paper.

² Separate CRR for demand and time deposits, with reclassification of the deposits of less than 6-month maturity, BSD Circular No. 9, dated July 18, 2006.

With the surge in foreign exchange inflows³ in H2-FY07, SBP mopped up the excess foreign exchange from the market which resulted in a continual surge in rupee liquidity in the banking system. The extent of inflows can be gauged from the fact that despite a large current account deficit (around US\$7.1 billion), market conditions moved to a gradual ease during the period — the lending rates decline during H2-FY07.

Subsequently, the rupee liquidity was sterilized through higher net acceptances from the auctions. As shown in **Table 7.1**, SBP absorbed Rs 242.7 billion over and above the amount of maturing T-bills. Though OMO interventions were less frequent in H2-FY07, the overnight rates remained stable due to the higher amount absorbed. In short, during the latter half of FY07, SBP sterilized Rupee liquidity through auctions, while OMOs were still used effectively to manage inter-bank liquidity. This strategy helped in the sterilization of liquidity for a longer period, given banks' increased interest in longer-term T-bills.⁴ However, SBP was cognizant of the inflationary pressures in the economy and acted to prevent further easing of monetary conditions by raising the discount rate by 50 bps in August FY08, to 10 percent.⁵ As a consequence, T-bill yields have seen a rise (both in the primary and secondary market). The other rates have also responded with an upward movement during Q1-FY08.

Moving on to long-term interest rates, an important development in FY07 was the extension of the yield curve to 30 years. This was achieved by the floatation of Pakistan Investment Bonds (PIBs) of 30 years tenor in December FY07 by the Government (**Figure 7.4**). While developing the longer-end of the yield curve, this has essentially served to provide benchmark interest rates over a range of tenors, i.e. from 3-months to 30 years. Having this array of sovereign benchmarks is imperative for the pricing of debt instruments for different segments of the economy with varying funding requirements, with activities ranging from working capital loans to mortgage / infrastructure financing. Furthermore, this helps the transmission mechanism of monetary policy through the provision of an extended term structure of interest rates. It is also pertinent to note that the slope of the yield curve has flattened substantially in the last few years (**Box 7.1**).



In FY07, the supply of the long-term government paper started to pick up pace as the government started to hold primary auctions of PIBs in a more regular and predictable manner. In addition, PIBs are now generally being sold through *re-openings*⁶ which has resulted in a considerable supply of *on-the-run-issues*.⁷ While pursuing its monetary tightening stance, and observing the distortion in its implementation due to government's frequent borrowings from the central bank, SBP has been persistently pointing to the need for a greater supply of PIBs to facilitate government debt management, and to reduce market segmentation. It is expected that with a greater supply of PIBs, the cost of funds for financing the fiscal deficit would decline in the long-run. In addition, it will help the

³ During H2-FY07, liquidity conditions in the money market started to ease-off as the pace of foreign exchange inflows accelerated. These flows basically represented a surge in home remittances, FDI including GDRs, privatization proceeds, and portfolio investment.

⁴ With increasing liquidity, there was a reversal in banks' interest rate expectations and they were more inclined to invest in 12-month T-bills.

⁵ Monetary Policy Statement, H1-FY08, State Bank of Pakistan.

⁶ Issue lots with the same issue and maturity date, offered on different occasions – the first opening with full maturity while in each subsequent opening the remaining term to maturity declines. This strategy effectively increases liquidity in the bond market by resolving pricing problems related to small and scattered issues.

⁷ These are bond issues of a relatively bigger size and are actively traded.

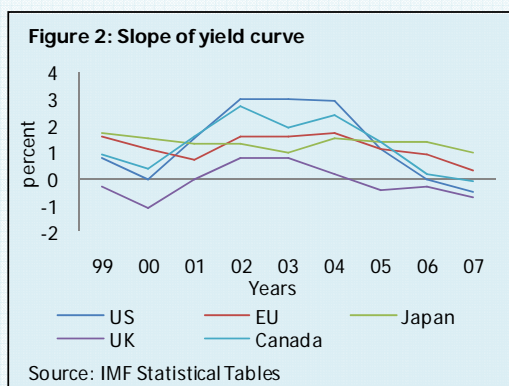
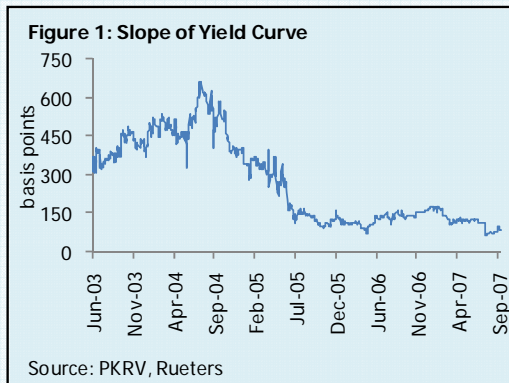
Box 7.1: Flattening of Yield Curve

Interest rates play an important role in macroeconomic stability by keeping the aggregate supply and demand in equilibrium. In addition, movements in interest rates help transmit the monetary policy stance. Monetary policy signals are transmitted instantly in the short-term interbank money market rates. In the next round, the long-term interest rates respond to these changes, and through their impacts on asset prices, affect inflation and output in the economy. This means that if long-term interest rates are slow to respond (reflecting a flattening yield curve), the monetary policy impact would be diluted. Normally, long-term interest rates move in tandem with short-term interest rates, with the differential reflecting the premium. The premium on long-term interest rates mostly remains fixed thus implying a relatively constant slope of the yield curve over time, such that movements in interest rates change only the level of the yield curve and not the slope.

Pakistan has witnessed a sharp decline in the slope of the yield curve in the last few years. With short-term interest rates gradually rising as a consequence of monetary tightening, there has been relatively less activity in the longer end of the yield curve which has remained largely stable. While short term interest rates reflect the monetary policy stance, trends in the long term interest rates could reflect one of several things, such as low risk premium, market segmentation, etc. As depicted in **Figure 1**, the yield curve is getting relatively flatter. More specifically, this flattening of the yield curve can be attributed to several factors such as: (a) market confidence in SBP's measures to reduce inflation, which leads to expectations of low inflation in the future, and a downward revision of the long-term inflation forecasts, and (b) distinct demand and supply dynamics in the market for short-term and long-term government paper, so there could be divergent movements.

In case of the domestic money market, both factors could be at play. Monetary policy has been tight since FY05, and SBP has been successful in dampening core inflation, though the persistently high food and energy prices have served to neutralize the impact of tight monetary policy on inflationary expectations. So possibly, the market segmentation explanation is more dominant in Pakistan. Last few years have seen an inadequate supply of long-term government bonds in the primary market, and a decline in the bonds available for trading, as banks transferred a chunk of their PIB holdings to the held-to-maturity category.

Empirically, the slope of the yield curve is found to be a leading indicator of real sector activities – with a lowering slope hinting towards an impending recession. Estella and Mishkin (1996) estimated a probit model (To find the probability of a recession given a set of explanatory variables, in this case the slope of the yield curve.) to explore this issue empirically for the US. Their results suggest that the slope of yield curve indicates a recession four quarters ahead – a higher slope is associated with lower probability of recession and a smaller slope with a higher probability of recession. In recent years, some major world economies including the US have seen a considerable flattening of yield curves (**Figure 2**). In most instances, whenever the yields curve in the US was flat (or inverted), it led to a recession. However, Wu (2006) opines that the recent (since July 2004) flattening of the yield curve is not a sign of expected economic slowdown as most economic indicators remain robust. Wu suggests that the recent flattening of yield curves in developed economies is due to globalization and relative stability in inflation trends (and inflationary expectations) and the real sector.



In Pakistan, flattening of the yield curve during FY05 and most of FY06 was primarily due to lack of activity in primary and secondary markets (For detail please see Pakistan Financial Sector Assessment 2005). However, from May 2006 onwards, the PIB market has seen a continual supply that has effectively increased liquidity in the government bond market. The slope of the yield curve is still quite flat compared to the FY04 level. The possible explanation lies in a confluence of factors such as : (1) lowering of long run inflationary expectations as a result of recent monetary tightening measures, (2) pent-up demand from earlier maturities that had piled-up due to lack of supply, and (3) new demand especially originating from the insurance sector which is still not allowed to invest in NSS instruments. These factors have increased the demand for PIBs which has reduced yields.

government in implementing a more prudent debt management strategy, as the volatility in the financing needs of the government can now be streamlined.

The next section discusses in detail the conduct of the money market during FY07.

7.1.1 Trading Activity

The Repo market is by far the biggest component of the interbank money market in Pakistan (**Table 7.3**). It accommodates more than 60 percent of the liquidity requirements of the inter-bank money market. The dominance of a Repo market in Pakistan is in contrast to the dominance of the Call market in most developed markets. The call market in Pakistan is still not well established primarily due to lack of information about the credit worthiness of different market participants, coupled with line and exposure limits imposed by individual banks on lending to other banks.

Though FY07 witnessed a shift in activity from the Repo to the Call market, this was primarily due to the July FY07 increase in CRR and SLR,⁸ as explained earlier.

7.1.2 Interest Rate Volatility and Spreads

Interest rate volatility creates problems for banks in making different investment decisions. As such, lower volatility is desired for the smooth functioning of financial markets. Volatility rises in a changing interest rate scenario, usually triggered off by changes in market perceptions of future changes in interest rates. SBP's effective liquidity management during FY07 has served to reduced volatility in O/N rates. The recent rise of 50 bps in the benchmark 3-day Repo rate⁹ has not resulted in increased interest rate volatility, as evident from the data for Q1-FY08, as it has helped in anchoring the divergent interest rate expectations.

Table 7.3: Trading Volumes*

Volume in billion Rupees, and shares in percent

	Market-wise			
	Volume		Shares	
	FY06	FY07	FY06	FY07
Outright	1,104.20	1,532.40	10.4	11.6
Repo	7,442.49	8,563.63	70.0	65.1
Call	1,151.53	1,810.60	10.8	13.8
Clean	926.9	1,257.40	8.7	9.6
<i>Total</i>	<i>10,625.12</i>	<i>13,164.03</i>	<i>100.0</i>	<i>100.0</i>
Category-wise				
Collateralized	8,546.69	10,096.03	80.4	76.7
Uncollateralized	2,078.43	3,068.00	19.6	23.3
<i>Total</i>	<i>10,625.12</i>	<i>13,164.03</i>	<i>100.0</i>	<i>100.0</i>

* Trading volume represents lending volume in respective markets

Source: DMMD, SBP

Table 7.4: Volatility in interest rates

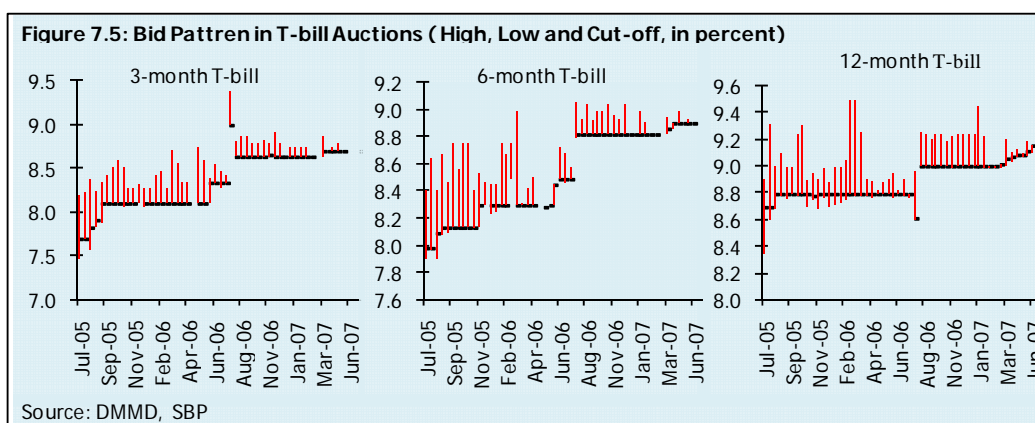
percent

	Average		Coeff. of Var.	
	FY06	FY07	FY06	FY07
Repo				
3-month	8.31	8.82	0.26	0.05
6-month	8.47	8.95	0.02	0.01
KIBOR				
3-month	8.69	10.04	0.04	0.03
6-month	9.22	10.35	0.03	0.02
PIB				
10-year	9.51	10.21	0.01	0.02
30-year	NA	11.62	NA	0.01

Source: DMMD, SBP

⁸ BSD Circular No. 09 dated July 18, 2006.

⁹ Monetary Policy Statement, H2-FY08, State Bank of Pakistan.



Despite divergent expectations of interest rate trends interest rate volatility as measured by standard deviation and coefficient of variation shows a decline for most interest rates in FY07 compared to FY06 (**Table 7.4**). This lower volatility in interest rates is primarily due to prudent monetary management. More specifically, SBP intervened on 69 occasions (mostly on the selling side) through OMOs, as a result of which the O/N rate remained close to the discount rate. These interventions were heavily concentrated in short-term tenors (**Table 7.5**).

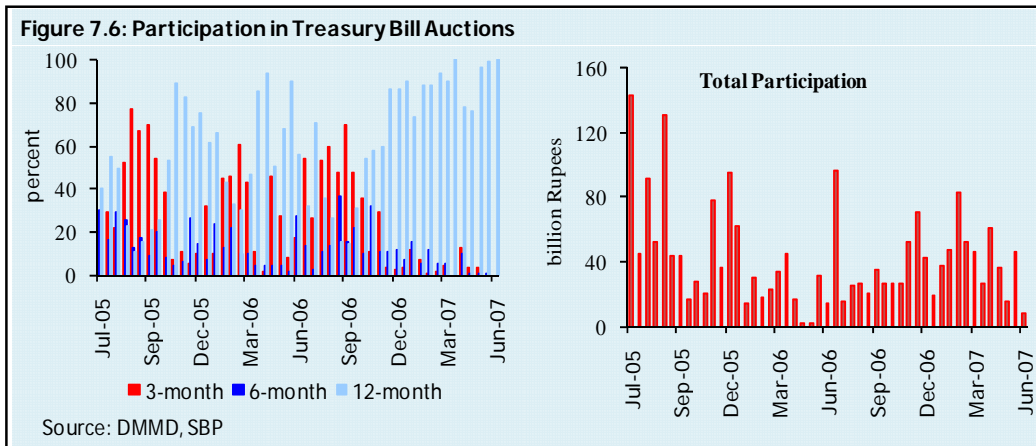
Table 7.5: Tenor-wise OMO

	Mop-up			Injection	
	Offered	Accepted	per OMO	Bid	Accepted
billion Rupees					
FY07	1,138.55	936	13.6	109.6	72
FY06	880.9	643.65	6.8	716.4	429.38
Tenor-wise intervention					
(number)					
	3 or less	4 to 7 days	8 to 10 days	11 to 14 days	15 days or more
FY07	20	22	16	14	14*
FY06	18	22	12	21	0
(shares in percent)					
FY07	32.4	33.8	16.9	14.1	2.8
FY06	32.9	35.4	11	20.7	0

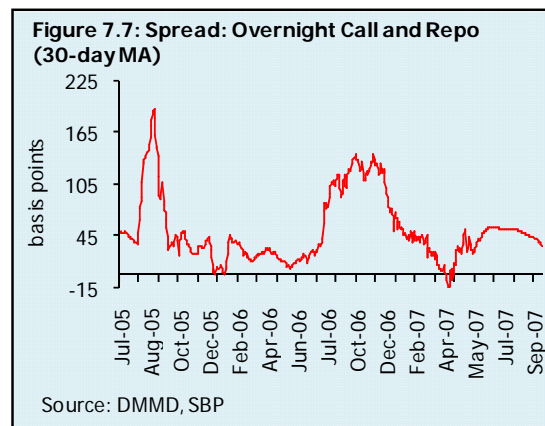
Note: Total number of OMOs in a year may not match with these numbers as different tenors can be offered in one OMO
 * including 12 outright
 Source: DMMD, SBP

Frequent interventions effectively provided stability to the market in managing liquidity. Moreover, a greater number of outright OMOs were done to supplement sterilization through auctions of T-bills. On the monetary management front, T-bill auction cut-offs remained quite stable throughout FY06 and FY07 (barring a rise in July F07 when the discount rate was increased by 50 bps).¹⁰ This stability helped to align market expectations of changes in interest rates. As shown in **Figure 7.5**, the bid pattern in all tenors of T-bill auctions remained volatile throughout FY06 and FY07. The bid spreads (difference between high and low) remained high, depicting divergence in market expectations. However, by the end of FY07, the bid spreads had stabilized substantially.

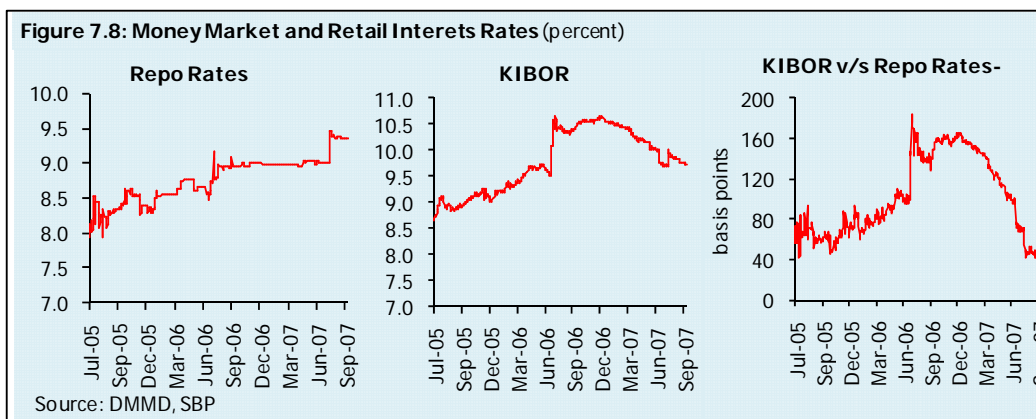
¹⁰ The discount rate was further increased by 50 bps in August FY08, vide BPRD Circular No. 11 dated July 31, 2007.



Market expectations regarding interest rates can also be gauged by the tenor-wise participation trend (**Figure 7.6**). Until around November FY07, banks' participation in the 3-month paper was relatively high – banks were booking short-term assets in anticipation of a rise in interest rates. The post-December FY07 period shows a clear shift in participation towards longer-term securities, depicting markets' view that interest rates had peaked.



Interest rate spreads between Repo and call showed some volatility during FY06 and FY07. As shown in **Figure 7.7**, the spread between the overnight call and Repo rates rose sharply in July FY07 and eventually declined by end-FY07. The rise in the call-repo spread was primarily triggered off by a rise in CRR and SLR in July FY07. Similar trends were reflected in KIBOR-Repo spreads (**Figure 7.8**). The data for Q1-FY08 also reflects the continuation of the trend that emerged in the latter half of FY07.



7.1.3 Primary Market for Government Securities

The primary market for government securities not only provides benchmark interest rates but also provides banks with the opportunity to acquire risk free assets to improve asset quality of their respective portfolios. As shown in **Table 7.6**, the primary market of treasury bills remained robust, as T-bill supplies continued to rise almost every year. The acceptance ratio

has also been rising, though the offers remained higher in the period under consideration, implying excess demand for the short-term government paper. This robust demand also helped SBP in moderating interest rate expectations, which helped maintain the stability of financial markets. Interestingly, the demand conditions for T-bills (as reflected by acceptance and offer to target ratios) remained strong despite changing monetary conditions,¹¹ thus providing SBP enough room to implement its monetary stance.

The supply position of the long-term government paper, on the other hand, is not as smooth as the T-bill market. A well developed local currency bond market is essential to alleviate potential risks related to FDI and short-term capital flows, as evidenced by the painful lesson learnt by the East Asian Economies in the late 1990s. Resource distribution becomes more efficient as a larger horizon is available for investment to cater to a broader range of risk appetites. Well-developed bond markets generate a healthy degree of competition in the financial sector by providing an alternate source of financing. All these beneficial features of a vibrant bond market contribute in strengthening financial sector stability.

Table 7.6: Treasury bill -- Auction Summary

Amounts in billion rupees, ratios and yield in percent

	No.	Offer	Accepted	Acc/Mat	offer/Tar
FY02	26	615.3	317.2	149.8	252.4
FY03	26	1,551.0	642.7	144.3	267.8
FY04	26	1,021.8	514.5	63.9	153.7
FY05	26	1,618.6	1,051.3	69.3	159.3
FY06	26	1,124.4	738.1	113.5	142.8
FY07	26	1,094.8	888.3	127	143.9

Source: DMMD, SBP

However, there have been problems relating to both the supply and demand dynamics of Pakistan Investment Bonds (PIBs), which has hindered the development of a robust primary and secondary market of the long-term government paper. Despite the initial success of PIBs in the FY02-04 period, the government remained reluctant to issue these instruments during most of FY05 and FY06, which resulted in squeezing the liquidity from the bond market (Table 7.7). Lack of supply led to the lack of credible benchmarks for long-term financing.

Table 7.7 : Pakistan Investment Bond -- Auction Performance

billion Rupees

	Held	No. of Bids		Amount		Acceptance as % of	
		Offer	Accepted	Offer	Accepted	Offer	target
FY01	6	261	182	58.8	46.1	78.4	94.1
FY02	13	1,374	486	238.4	107.7	45.2	115.8
FY03	7	1,595	323	212	74.8	35.3	113.4
FY04	7	1,273	626	221.3	107.7	48.6	85.4
FY05	3	126	17	8	0.8	9.6	8.6
FY06	1	182	133	17.1	11.2	65.8	112.4
FY07	5	898	430	199	87.9	39	90.4

Source: DMMD, SBP

The secondary market for government bonds suffered an additional blow due to a shift of a substantial portion of already issued PIBs to the 'held-to-maturity' (HTM) category in July 2004, in response to SBP's directive aimed at reducing substantial revaluation losses emanating from rising interest rates, coupled with heavy investments of banks in PIBs.¹²

¹¹ Over the period FY02-FY07.

¹² This was primarily done to immunize banks from substantial revaluation losses resulting from a rising interest rate trend. Institutions were allowed to hold securities in the HTM category until maturity, without revaluing it with market to market prices. However, this categorization, while providing some short term relief to the banking sector, also adversely affected the secondary market. In order to book minimum capital losses, banks placed a major portion of liquid issues of PIBs in the HTM category where the possibility of capital losses was greater than the other non liquid

Nonetheless, since May FY06 the government has re-started issuance of PIBs at regular intervals. In addition, besides first time issuances, all the subsequent issues are through re-opening which have started to increase the supply of on-the-run issues as mentioned earlier, giving a boost to liquidity in the secondary market, besides mitigating problems related to the complicated pricing process associated with small (and scattered) multiple issuances. In addition, the increase in government borrowing through long term bonds will serve to increase the average maturity of government debt, thus reducing rollover and liquidity risk.

Despite these positive developments, government's decision to re-allow institutional investment¹³ in National Savings Schemes (NSS) in October FY07 was a major setback to the PIB market. Institutional investment in NSS was banned in March 2000 primarily to shift maturing and new institutional investments from NSS to PIBs. However, there is also a positive element of this policy-reversal in that there is now greater competition for banks to mobilize long-term funds, thus putting upward pressure on the returns on time deposits.

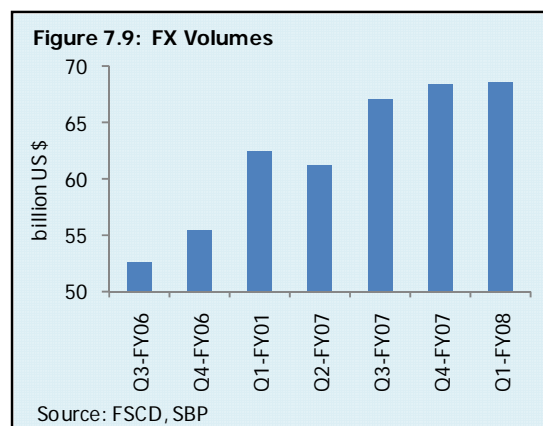
In conclusion, the money market in Pakistan has developed substantially since the process of liberalization of the financial system began in the early 1990s. There is now a vibrant primary and secondary market for T-bills. In FY07, the uncollateralized markets have effectively complimented the collateralized market to meet funding requirements without jeopardizing the stability of the financial system. The money market has also been successfully used for the conduct of monetary policy by effectively using tools such as OMOs and reserve requirements. However, impediments to the development of a robust long-term bond market poses potential risks to financial stability and more concrete measures are needed to address this issue. The government has to ensure a predictable and sufficient supply of PIBs in all tenors on a regular basis to develop the much needed local currency bond market.

7.2 Foreign Exchange Market

Movements in the exchange rate parity of the domestic currency with major international currencies directly impact financial institutions, especially the banking sector, by changing the value of its foreign assets and liabilities. There is also an indirect impact on financial institutions arising from changes in the real economic activities, as exchange rate movements have strong implications for resource allocation, trade openness, the balance of payment position and economic growth. Reducing barriers on capital mobility and increasing interdependencies of economies on account of trade/investment relations have further strengthened the direct and indirect effects of exchange rate movements in recent years. Pakistan is no exception – the exchange rate is market determined, restrictions on capital movements have been reduced substantially and trade volumes are on the rise. In view of these developments, activities of the foreign exchange market in FY07 are discussed in the following sections.

7.2.1 Market developments

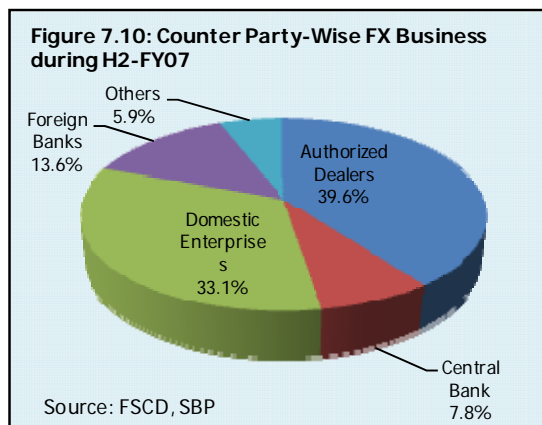
Strong economic activities alongwith increasing foreign exchange flows have resulted in visible changes in the foreign exchange market in recent years. In FY07, the foreign exchange market grew substantially in both capacity and volumes. Market volumes of foreign exchange transactions grew steadily during the year, and reached US\$ 68.5 billion in Q4-FY07, compared to US\$ 55.4 billion during the same period last year (Figure 7.9). Party-wise distribution of



issues. For detail please see Pakistan Financial Sector Assessment 2005, and BSD Circular No. 13 dated July 13, 2004.

¹³ Other than banks and Insurance Companies.

foreign exchange volumes based on average monthly data for the first 6 months of 2007 indicates that over 35 percent of the foreign exchange transactions were conducted among the authorized dealers, while another one-third of the business was generated by the domestic corporate clients (Figure 7.10).



Given that the exchange rate is market determined, the increasing volume of foreign exchange transactions has a direct impact on the level of the exchange rate. Exchange rate movements indicate that the rupee remained stable against the US\$ despite pressure on the rupee due to the sustained current account deficit. Relatively small inflows during H1-FY07 in comparison with H2-FY07, along with sluggish export numbers, culminated in a steady depreciation of the Rupee against the US Dollar in the first half of the year. A quick view of Figure 7.11 reveals that the exchange rate witnessed steady depreciation up to Jan 2007, with two way movements in the exchange rate. Subsequently, the Pak Rupee appreciated against the US Dollar, with slightly increased volatility in the exchange rate. Despite the on-going tight monetary policy, the depreciation was primarily driven by the all time high trade deficit over the past two years.

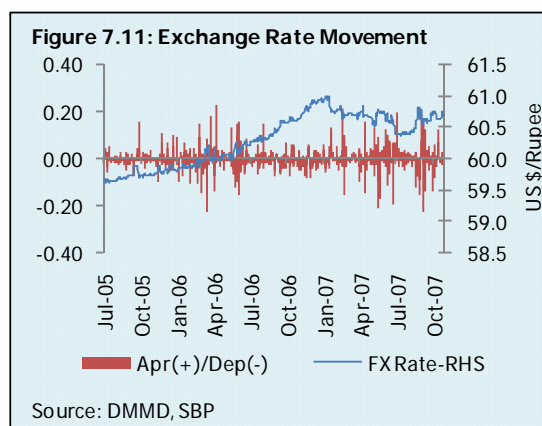
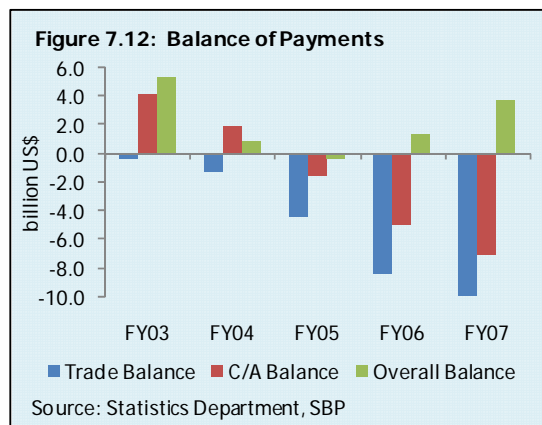


Figure 7.12 shows that the external current account deficit had reached US\$ 7.1 billion in FY07 as compared to US\$ 5.0 billion during FY06. The huge trade deficit in FY07 is primarily driven by the sluggish export performance (YoY growth of 3.2 percent), as imports growth declined to 8.1 percent during the year.¹⁴ Fortunately, the current account deficit was financed comfortably through increased external inflows in the form of FDI and portfolio investment. These strong inflows not only pushed the overall balance of payment into a relatively higher surplus, but also helped in easing off pressure on the Rupee.



The surplus balance was largely absorbed in SBP foreign exchange reserves, which surged to over US\$ 15.0 billion, with an increase of over US\$ 3.5 billion during FY07. Had SBP not sterilized these inflows, the Rupee would have appreciated even more sharply. The Real Effective Exchange Rate (REER), an indicator of external competitiveness against a given basket of currencies, indicates a positive change of only 0.7 percentage points during FY07.¹⁵

The surplus balance was largely absorbed in SBP foreign exchange reserves, which surged to over US\$ 15.0 billion, with an increase of over US\$ 3.5 billion during FY07. Had SBP not sterilized these inflows, the Rupee would have appreciated even more sharply. The Real Effective Exchange Rate (REER), an indicator of external competitiveness against a given basket of currencies, indicates a positive change of only 0.7 percentage points during FY07.¹⁵

¹⁴ This is in sharp contrast to FY06, when the trade deficit was primarily driven by imports growth of 31.6 percent.

¹⁵ An increase in REER indicates real appreciation of the rupees or loss of competitiveness.

Figure 7.13 clearly shows that there is no significant change in REER since January 2006. In fact REER has remained stable with reduced volatility. Another notable point is the change in the nominal effective exchange rate (NEER) and the relative price index (RPI). The NEER indicates continued depreciation of the rupee against a basket of currencies. In nominal terms, a slight appreciation of the Pak Rupee during H2-FY07 was effectively more than offset by the depreciation of the US Dollar against other major currencies, thus maintaining the downward trend of NEER. Far more depreciation of Pak Rupee against other major currencies as compared to the US Dollar also reflects the weakening of the US Dollar in international markets over the same period. On the other hand, the rising RPI is a reflection of the relatively high inflation in Pakistan as compared to other countries in the basket. The positive impact of nominal depreciation is offset by the sharp rise in RPI, leaving REER almost stable. Had RPI not increased sharply, the Rupee would have witnessed real depreciation during FY07.

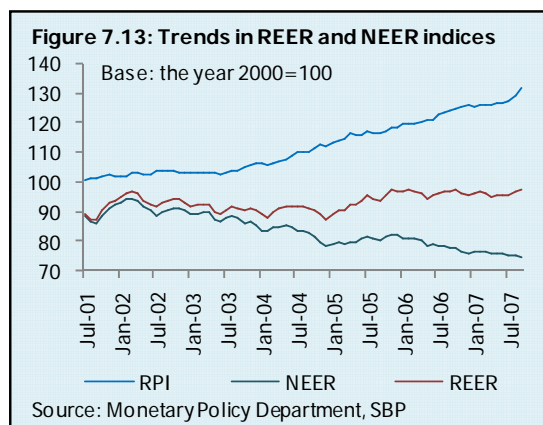


Table 7.8: Reserve Adequacy Ratios

	FY03	FY04	FY05	FY06	FY07
Import Coverage-week	43.8	40.5	27.3	22.8	26.2
Reserve to STDL (%)	6.7	8.6	6.7	7.7	10.9

STDL: Short Term Debt Liabilities
Based on SBP Reserves only

Foreign exchange reserves are considered to be an important source of financial stability, especially in the wake of the East Asian financial crises of the late 1990s. As the opportunity cost of reserve accumulation is significant,¹⁶ the optimal level of reserves is a widely debated concept. Literature on the level of optimal reserves is still evolving and different methodologies suggest different levels of reserves. According to the Guidotti-Greenspan-IMF rule, foreign exchange reserves should be equal to the short term debt liabilities (payable within a year) of the country.¹⁷ On an assessment of Pakistan's reserves adequacy ratios on the basis of this rule, it is found that the country needs to either accumulate more reserves, or to reduce STDL, as the reserves to STDL ratio was only 10.9 percent at end FY07 (**Table 7.8**). A 3.2 percentage point increase provides some comfort that the ratio has improved during the year. Another benchmark, though rather old, is the import coverage of 3 to 6 months. Foreign exchange reserves in Pakistan are well above the minimum threshold level of three months, as the import coverage ratio has increased to 26.2 weeks (approximately 6 months). Both the visible rise in foreign exchange reserves and a subdued growth in imports supported the improvement of the import coverage ratio during the year.

7.2.2 Foreign Exchange Market Pressure Index

While the above developments point to the absence of any significant pressure in the exchange rate, a widely used indicator to assess the overall condition of the market is the Foreign Exchange Market Pressure Index (FEMPI). This type of an index is developed and continuously monitored by various central banks.¹⁸ However, the methodology and number of indicators employed to make a composite index differ across these central banks. Following Eichengreen et. al (1995), and Blankson et. al (2003), we have constructed an

¹⁶ Rodrick (2006) shows that cost of accumulating reserves "amounts to 1 percentage points of GDP annually for developing nations taken as a whole".

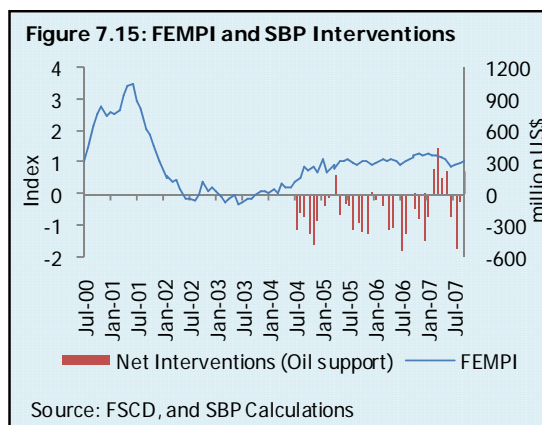
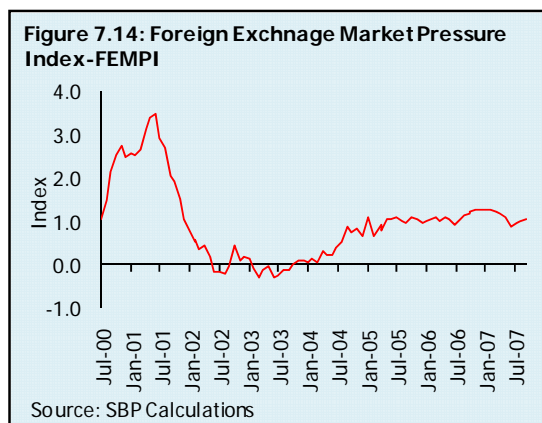
¹⁷ Rodrick (2006).

¹⁸ For instance, South African Reserve Bank, Bank of Ghana etc.

FEMPI for Pakistan on the basis of exchange rate movements, changes in foreign exchange reserves and interest rate (for details, please see **Box 7.2**).

Figure 7.14 reveals that a slight pressure on the exchange rate was built up during Q2-FY07. Stability in the FX market came under pressure in December FY07 due to exceptionally weak export numbers for the second month in a row (September and October FY06), and the release of IMF's Article IV Report which raised concerns regarding the misalignment of the Rupee, which were later diffused by SBP's clarification regarding the appropriateness of the Rupee-US\$ parity. Subsequently, pressure on the exchange rate eased off, as is also visible from the figure.

A word of caution seems relevant here, as the FEMPI has certain limitations. Without going into methodological issues, the importance of FEMPI needs to be discounted in view of SBP's foreign exchange interventions. Although these interventions are primarily designed to reduce excessive volatility in the foreign exchange market on account of huge oil payments, they also help in easing off pressures on the exchange rate. This is also evident from **Figure 7.15**, which shows that the volatility in FEMPI declined visibly following the announcement of the oil support facility



Box 7.2: Foreign Exchange Market Pressure Index

Intuitively, pressure on the exchange rate can have a strong impact on foreign exchange reserves and domestic interest rates. It may result in the loss of foreign exchange reserves, be rebuffed by increasing domestic interest rates, or by depreciation/valuation of the exchange rate. Any combination of all these three factors may also be an outcome. In constructing a composite index including these three components, the crucial point is the weighting scheme and their interlinkages. Following Eichengreen (1995) and Blankson et. al (2003), a foreign exchange market pressure index (FEMPI) is defined as a linear combination of changes in the bilateral exchange rate, foreign exchange reserves of SBP and interest rates. All three components are combined in such a way that their conditional volatilities are equal. Mathematically, this can be explained as follow:

$$FEMPI_t = \frac{1}{\sigma_E^2} \Delta E_t - \frac{1}{\sigma_R^2} \Delta R_t + \frac{1}{\sigma_i^2} i_t$$

Where $FEMPI_t$ represents the value of the Foreign Exchange Market Pressure Index in time t ; ΔE_t denotes year-on-year (YoY) percentage change in nominal exchange rate at time t ; ΔR_t denotes YoY percent change in international reserves; i_t is the call money rate/cut-off yield of 6-month t-bill rates; and $1/\sigma_j^2$ is the variance of the respective series.

It may be noted that the value of $FEMPI_t$ itself has no intuitive meaning, while a rise in $FEMPI_t$ reflects an increase in pressure and vice versa. The weighting scheme remains the most debatable issue in constructing the Index

in Q2-FY05.¹⁹ However, despite certain limitations, the FEMPI is a useful measure for assessing the building up of pressures in the foreign exchange market.

7.2.3 Further Liberalization of the FX Market

The Domestic foreign exchange market continues to strengthen in response to increasing trade volumes and improving external flows related to services, income, capital and financial accounts. These developments have helped SBP to further liberalize the foreign exchange market. An important development on this front is the change in SBP's oil support policy.²⁰ SBP has recently directed banks and authorized dealers to purchase foreign exchange for the financing of furnace oil imports from the inter-bank market.²¹ This policy shift is primarily facilitated by increased foreign exchange liquidity and depth of the foreign exchange market.

Another key development is SBP's stance on external commercial borrowings (ECB) to facilitate the corporate sector in accessing international markets. Although a system of foreign currency borrowing was already in place, such borrowings by the corporate sector are small as compared to private sector credit. Specifically, private non-guaranteed debt is only US\$ 1.9 billion as of March FY07, compared to advances of over US\$ 40 billion of the banking sector. Streamlining and liberalization of regulations related to ECB is likely to help the corporate sector in getting a cost advantage in case of long term financing, and to avoid full utilization of their per party limits with banks as per prudential regulations. In other words, the corporate sector will now have access to international markets to meet its financing requirements more effectively.

These liberalization measures have strong implications for the stability of the financial sector in general and the foreign exchange market in particular. Cognizant of these issues, SBP is already providing transactional approval for cross currency swaps (CCS) for hedging foreign exchange risk. The market has witnessed CCS worth Rs 101.1 billion during FY07.

7.3 Capital Markets Performance and Stability Analysis

Capital markets play an important role in mobilizing domestic and foreign savings, and channelizing them into productive uses. Both the equity and the bond market provide direct access to financing and investment. Efficient capital markets also perform the function of diversification of risk – a factor closely associated with the stability of the financial sector.²²

Risks to the stability of the financial system emanating from capital markets are related to financial institutions' direct investment in the equity market, indirect exposure through collateralized lending, and banks' exposure in the CFS²³ market. This section discusses the various risks arising from these possible sources.

Pakistan's capital markets have greatly benefited from the strong macroeconomic performance since FY02. Sound economic fundamentals have also enabled the country to seek financing from international capital markets. The equity market in particular benefited from the investor's search for yield in an era of excess liquidity during FY07, a phenomenon which rapidly lost ground with the onset of the liquidity crunch due to the problems associated with the US sub-prime mortgage market.

7.3.1 Equity Market

Although Pakistan has three stock exchanges, the Karachi Stock Exchange (KSE) is the largest in terms of capitalization and turnover. Market capitalization of the KSE-100 index

¹⁹ SBP announced its decision to provide adequate liquidity to the interbank market from its own resources to make payments in foreign currency in settlement of import of POL products - EPD Circular Letter No. 12 / Policy-2004 dated November 1, 2004.

²⁰ EPD Circular Letter No. 16/2(47)-2007 dated July 11, 2007.

²¹ In addition to commodities specified in Form M.

²² For more on comparison between bank financing and stock market financing, please see Singh & Weiss (1998), "Emerging Stock Markets, Portfolio Capital Flows and Long-term Economic Growth: Micro and Macroeconomic Perspectives", World Development Vol. 26 No. 4.

²³ Continuous Funding System, discussed in more detail in section 7.3.2

grew by 37.8 percent in FY07 to Rs 4,019 billion, and reached 46.1 percent of GDP at end-FY07 by crossing its highest level of 13,772 points on 29th June FY07 (**Table 7.9**). This increase in the KSE-100 index was driven primarily by sustained economic growth, strong corporate earnings and floatation of profitable public sector enterprises (PSEs), in addition to

Table 7.9 : Performance of Karachi Stock Exchange

	FY05	FY06	FY07	FY08*
No. of listed companies	659	658	658	656
Listed capital (Rs. billion)	439	496	631	637
KSE-100 index	7,450	9,989	13,772	13,351
KSE-All share index	4,876	6,708	9,758	9,409
KSE-30 index	-	-	16,993	16,183
SBP General Index of Prices	362	427	547	536
No. of IPOs	18	14	18	1
IPO Amount (Rs. Billion)	50.79	11.71	7.98	12.1
TFCs Issued	10	7	8	0
Amount of TFCs (Rs. Billion)	15.82	9.97	11.20	0
Market capitalization (Rs Billion)	2,068	2,801	4,019	4,101
Market capitalization as percent of GDP	31.4	36.3	46.1	47.0
Average daily turnover (million shares)	352	320	211	251
Trading days	250	246	240	64
SCRA investment (US\$ million)		355	978	(4.6)

* As of September 28, 2007.

Source: Karachi Stock Exchange

foreign investment flows in the stock market.²⁴ The floatations of these PSEs have increased the free-float base of shares available to the investors.

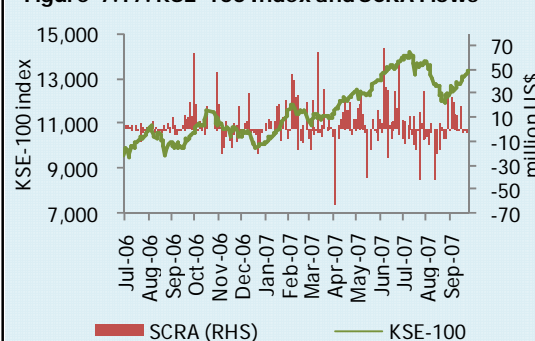
The robust growth in the KSE-100 index continued in FY08 and the index reached the highest level of 14,202 points on 13th July FY08. The rise was mainly brought about by the strong profitability of the banking sector coupled with the successful listing of UBL's GDR at the London Stock Exchange that was received well by the international investors. However, the rising political uncertainty prevailing in the country followed by rising SCRA outflows had an impact on the index which declined by 11.1 percent in August FY08. However, the rapidly evolving political environment restored investor's confidence in September FY08, and the KSE witnessed a net growth of 9.3 percent in its benchmark index, and SCRA net flows of US \$ 156 million led the overall SCRA position to close at US \$ (4.6) million in Q1-FY08. The salient feature of FY07 was the volume of foreign investment in the equity market. Equity investments routed through SCRA²⁵ in FY07 showed an impressive increase of 178 percent over FY06. Foreign participation as measured by SCRA flows reached a level

Figure 7.16: Foreign Stake on Domestic Stock Market (as percent of market capitalization)



Source: Statistics Department, SBP

Figure 7.17: KSE-100 Index and SCRA Flows



Source: Statistics Department, SBP and KSE

²⁴ The second issue of OGDC's shares amounting to Rs 2.36 billion was offered at a discount. Moreover, the UBL GDR amounting to US \$650 million also captured investors' interest.

²⁵ Special Convertible Rupee Accounts (SCRA) accounts were introduced in 1992, to facilitate international investors investing in the domestic equity and bond market to repatriate their profits in US Dollars at the prevailing market rates.

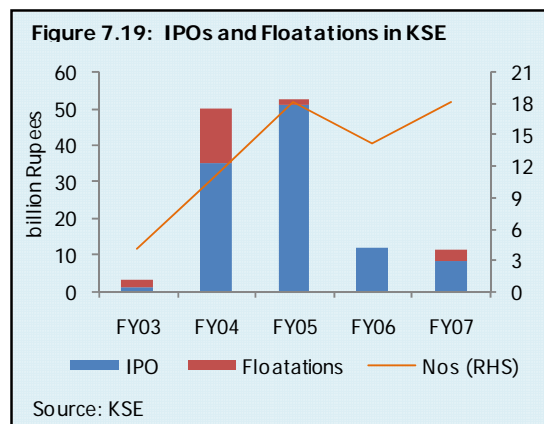
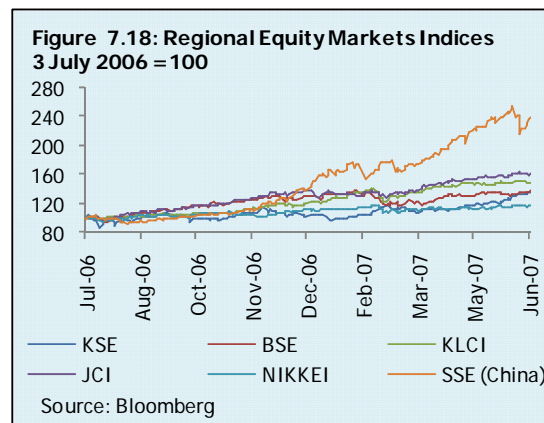
of around 6.8 percent of the market capitalization level in FY07 as shown in **Figure 7.16**

Furthermore, **Figure 7.17** shows the daily movement of the KSE-100 index and the trend of SCRA flows. Given the relatively small proportion of foreign investment, correlation with international markets is still low, though the recent decline in the KSE-100 index is also partly attributed to the withdrawal of foreign funds from the domestic market due to the turmoil in global financial markets.²⁶

KSE has been one of the best performing markets in the region (**Figure 7.18**) in the last few years, and with a projected P/E ratio at 11.8x,²⁷ it continues to trade at a discount in comparison with regional economies (average P/E at 15.1x), which is a reflection of its growth potential. Its dividend yield is also one of the highest in the region, and it continues to be a liquid market in comparison with others, as signified by the average daily turnover of 211 million shares in FY07, despite the decline since FY06 when the average daily turnover was 320 million shares. The reduction in the volume in FY07 was mainly due to market expectations regarding the abolition of CFS in H1-FY07, and a revision in the exposure limits of the members in the process of improving the risk management framework.

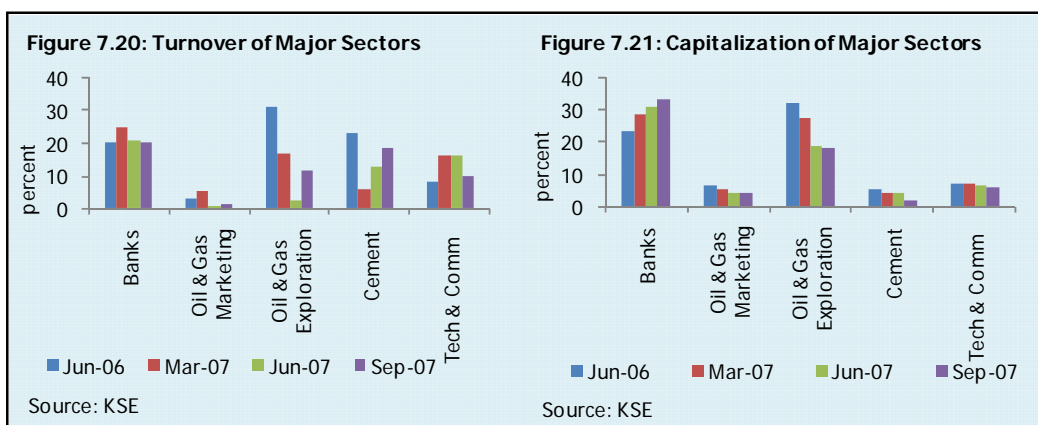
Despite this strong performance, and its high appeal for international investors, the volume of new equity issues in the market continues to be low. There were 18 IPOs in FY07, but the underlying amount was no more than Rs 7.98 billion, whereas 14 IPOs in FY06 added Rs 11.71 billion to the market capitalization. Incidentally, the biggest ever IPO in the history of capital markets in the country took place in July FY08 for Habib Bank Ltd, worth Rs 12.1 billion. Additionally, the number of newly listed companies also does not reflect an encouraging pattern (**Figure 7.19**).

Despite the presence of 36 sectors in the market, another risk factor is the concentration of trading in a few sectors such as banking, cement, telecom, oil & gas exploration and marketing, etc. Growth in market capitalization is primarily dependent on the performance of active trading in leading companies in these particular sectors, which together accounted for 55 percent of the market turnover and 65 percent of capitalization in FY07 (**Figure 7.20** and **7.21**).



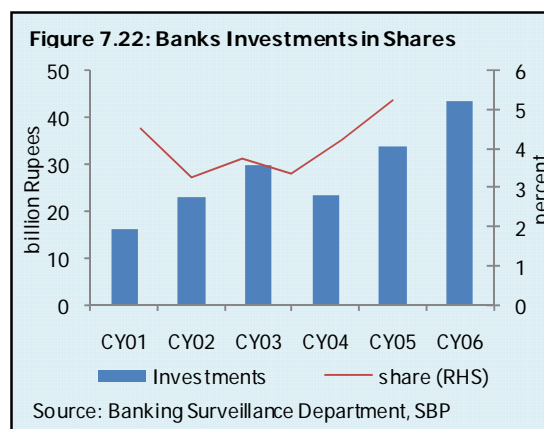
²⁶ Global Financial Markets have been in a state of upheaval since mid-July FY07.

²⁷ Based on expected corporate earnings in 2007



For a more efficient functioning of the market, several factors need to be addressed. To begin with, there needs to be an enabling environment for firms and corporations to raise funding through new equity issues (IPOs). Secondly, the KSE-100 index needs to be re-aligned more closely with sectoral shares in the GDP. At the moment it has a heavy tilt towards the banking and oil & gas sector, which together constitute around 60 percent weight in the index. The composition of the KSE-100 is one of the primary reasons why the market is perceived to have a certain degree of 'disconnect' from actual trends in economic growth. Furthermore, in order to gauge actual market activity, there has been a dire need for a more representative free-float index. The KSE-30 index introduced in September FY07 is one such step, but its composition is also somewhat aligned to that of KSE-100, given that the combined weightage of the oil & gas and banking sector is around 68 percent in the index.

The risks to the financial sector from banks' direct stake in the equity market remain low, as bank's equity investment has been 4.5 percent (average) of their total investments in the last two years, well within the limit specified in SBP's Prudential Regulations for banks and DFIs,²⁸ i.e. 20 percent of their equity. Figure 7.22 shows the amount of banks' investments in listed shares and the share in total investments.



7.3.2 CFS Market

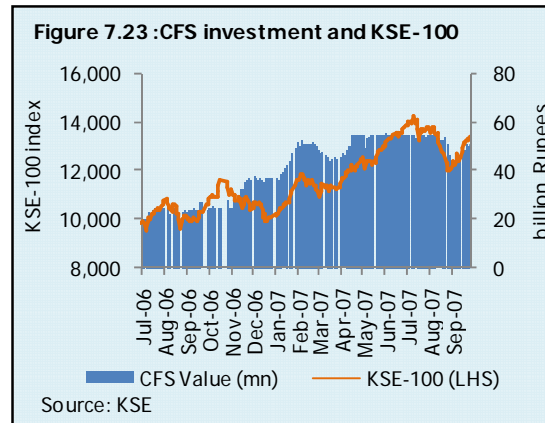
A unique feature of the Pakistan stock markets is the existence of leverage financing available through the Continuous Funding System (CFS) mechanism or *Badla* financing.²⁹

CFS is a facility for financing share purchases extended by banks and brokerage houses, which allows buyers to carry their highly leveraged positions in the market. A buyer can delay the payment for purchases indefinitely by paying the CFS overnight finance rates via an overnight sale and buy back mechanism.

²⁸ Prudential Regulation for Corporate / Commercial Banking, No. R-6, State Bank of Pakistan.

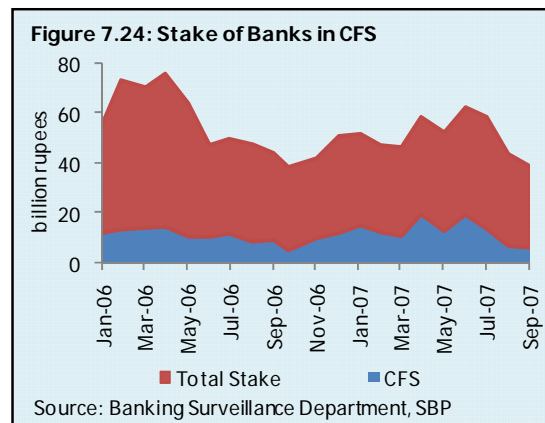
²⁹ CFS / *Badla* is an informal source of financing in which an investor can buy shares without using his own funds (weak holders). Generally, the absence of investors' stake in the transaction may lead to speculation activities. The *Badla* financier provides financing against shares at a market-determined rate of interest. The vulnerability of *Badla* arises when there is a sudden decline in market sentiment. In a bearish market, borrowers fail to liquidate their positions because of the excess supply of shares, and therefore default on their borrowings. This creates an overall leveraged position in the market and the index continues to drop until external financing is injected for settlement purposes.

CFS enables investors to obtain financing for settlement and profit taking purposes. As shown in **Figure 7.23**,³⁰ the CFS value (investment) is highly correlated with the KSE-100 index. This is so because until recently, only a few scrips, with a high weightage in the KSE-100 index, were eligible for trading in the CFS mechanism. Besides banks, CFS is available only through a few brokers. CFS investment has a maximum limit of Rs. 55 billion set by the SECP. However, to overcome the problem of liquidity scarcity and to ensure prudent risk management, the SECP is considering the removal of the upper limit and has proposed new regulations for the CFS mechanism which are discussed in **Box 7.3**.



CFS constitutes one of the major risk factors prevalent in the market. Episodes of market instability due to the CFS mechanism include the highly leveraged positions of investors in November and March FY07. A high overbought environment also caused a deterioration of the index by a massive 432 points on May 7th FY07. By widening the CFS base of eligible scrips and gradually phasing out the upper limit,³¹ SECP aims to minimize such occurrences, while also trying to capture the unauthorized or informal market which provides financing to leveraged investors at high rates.

Another concern associated with CFS is the stake of banks involved in providing this financing. **Figure 7.24** shows the consolidated CFS financing position of banks. The total indirect exposure of banks is the sum of CFS financing and collateralized lending against shares. Though the share of CFS remains low, with a rising amount of collateral in the form of shares, banks need to be vigilant in monitoring of this particular loan portfolio.



While SECP strives to strengthen the regulation of the CFS market to prevent incidents of market manipulation, an eventual phase-out of CFS would be a more desirable option to improve market efficiency and stability.³² However, the CFS system cannot be removed without the implementation of an alternative mechanism that takes into consideration the elimination of systemic risk and ensures implementation of transparency, while maintaining market liquidity.

It should also be borne in mind that the development of a genuine cash market and a thriving derivatives market would not only absorb the volumes from CFS but would also facilitate the promotion of transparency in market operations. In other international jurisdictions, it has been observed that the derivatives markets are flourishing and have overtaken margin

³⁰ The CFS limit was enhanced to Rs. 55 billion in November FY07 on account of rising leveraged positions of the investors, and since then the CFS investment has also been very close to this maximum limit, particularly in Q3-FY07. However, the effects of the decline in the KSE-100 Index and SCRA outflows in FY08 also resulted in a decline in the CFS investment to Rs 42 billion in August FY08.

³¹ Proposal under consideration.

³² It may be noted that the *Badla* mechanism was also present in the Bombay Stock Exchange (BSE) until July 2001 when it was replaced with options on individual stocks.

financing as well as other modes of financing as the preferred source of leveraged buying. The existence of CFS is a major deterrent in the development of a derivatives market with single stock futures, index futures, options, warrants etc. in line with international best practices, as the futures market cannot grow as long as CFS financing is available.

Box 7.3: Proposed Amendments in Existing CFS Mechanism

The Continuous Funding System (CFS) was introduced by SECP in FY06 as a transitory measure to replace COT / Badla by enhancing the level of liquidity while minimizing the possibility of systemic risk that was inherent in the COT / Badla financing mechanism. SECP's earlier attempts to replace COT with Margin Financing did not meet with much success and CFS was started with a cap of Rs 25 billion. CFS financing was provided for the top 40 companies, based on turnover. The limit was enhanced to Rs 55 billion in November FY06. However, the market appetite for CFS led to demands for a further enhancement of the CFS limit.

In order to continue the market momentum and to facilitate investors in availing access to liquidity, the SECP is considering a proposal for easing the restriction of a cap on CFS investment. An associated development will be an increase in the number of eligible companies, and their classification into two categories.

The 'A' category is proposed to consist of 43 companies, with an average daily impact cost* of less than 1.0 percent, traded on more than 90 percent trading days with an average volume of more than 0.5 million shares. Furthermore, these companies also need to meet the condition of posting operating profits in three full years of operations. Category 'B' consists of 41 companies with an average daily impact cost of 1.5 percent.

The companies are categorized by using the data of the last 6 months as the review period, and the selection of the pool of companies is proposed to be reviewed after 6 months. The proposed new regulations are summarized in the table.

Framework	CFS (Nov FY06)	CFS (FY08)
Implementation	CFS Replaced COT	Under consideration by the SECP and KSE.
Risk Management	Separate of T+3	Separate of T+3
Margins	Initial margin set at 85 percent	Initial margin to be at 100 percent with at least 50 percent in cash and 100 percent in securities.
Special Margins	No special Margins	Special margins in CFS market to be 100 percent in cash
Companies Traded	Total 40 Companies in CFS	43 companies in A category, 41 companies in B category. Category B was eliminated by the SECP in its revised framework.
CFS limit	Started from 25 billion and enhanced to 55 billion as upper limit.	No upper limit
Netting of Profits and Losses	Netting allowed in different scrips	Netting not allowed in different scrips

* The Impact Cost is the cost of executing a transaction in the stock market. The more liquid the share is, the less is the impact cost of that share.

**Source: KSE website

***SECP letter No. SMD-South/KSE (177)2007 dated September 08, 2007

The Indian experience with the elimination of *Badla* financing also provides some useful insights. India, like Pakistan, decided to eliminate *Badla* or COT³³ financing due to the problems it was causing for the market. COT was successfully banned in India in 2001. The

³³ Carry-over Trade.

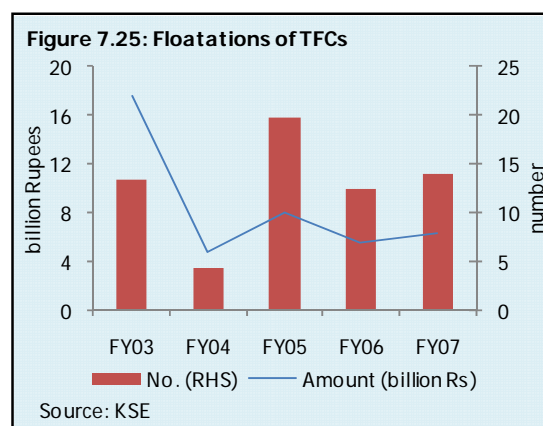
positive effects of the ban on COT are quite evident by the fact that India's cash and futures market have witnessed significant growth and development since then.

It should also be borne in mind that the development of a genuine cash market and a thriving derivatives market would not only absorb the volumes from CFS but would also facilitate the promotion of transparency in market operations. In other international jurisdictions, it has been observed that the derivatives markets are flourishing and have overtaken margin financing as well as other modes of financing as the preferred source of leveraged buying. The existence of CFS is a major deterrent in the development of a derivatives market with single stock futures, index futures, options, warrants etc. in line with international best practices, as the futures market cannot grow as long as CFS financing is available. The Indian experience with the elimination of *Badla* financing also provides some useful insights. India, like Pakistan, decided to eliminate *Badla* or COT³⁴ financing due to the problems it was causing for the market. COT was successfully banned in India in 2001. The positive effects of the ban on COT are quite evident by the fact that India's cash and futures market have witnessed significant growth and development since then.

A successful phase out of CFS would lead to improved levels of market integrity and investor protection, which would in turn provide long term benefits to the market, and would also promote the development of a thriving futures and cash market.

7.3.3 Corporate Debt Market - Listings and Floatation

The corporate debt market provides an alternate source of financing to the corporate sector, besides providing an investment option to institutional and individual investors. In Pakistan, the size of the corporate debt market is rather small. This is due to the fact that corporates continue to have a heavy reliance on bank borrowing. It was in FY05 that the corporate debt market witnessed an unprecedented amount of new listings and issuances (**Figure 7.25**), only to see a decline in activity subsequently. In FY07, most of the issuances were by financial institutions.



While future prospects of the corporate debt market remain questionable due to a variety of reasons, strong corporate profitability of relatively large-sized companies has also enabled them to seek financing from external sources by issuing Global Depository Receipts (GDRs). For details, please see the **Special Section on GDRs**.

Furthermore, the lack of development of the corporate debt market is discussed in detail in the thematic article "Need for Financial Diversification: Development of a Debt Market in Pakistan", in Part I of this report.

³⁴ Carry-over Trade.