# 5 Money and Banking

## 5.1 Monetary Policy

As in the previous year, the SBP continued to maintain a tight monetary policy throughout FY06, even though the principal policy variable, the discount rate remained unchanged at 9.0 percent during the period, in contrast to the 150 basis point rise seen in FY05. Instead, during FY06 the SBP focused essentially on improving the transmission of the policy rate, by draining excess liquidity from the inter-bank market and driving the overnight repo rates very close to the discount rate[1] (see **Table 5.1**). This approach proved to be very effective.

**Table 5.1: SBP Monetary Tightening**

| | FY05 | FY06 |
|---|---|---|
| Number of OMOs | 51 | 92 |
| Number of absorptions | 46 | 62 |
| Number of injections | 5 | 30 |
| Average overnight repo rate | 3.8 | 7.9 |
| Coefficient of variation | 0.6 | 0.1 |

**Table 5.2: Key Macro Targets and Performance**

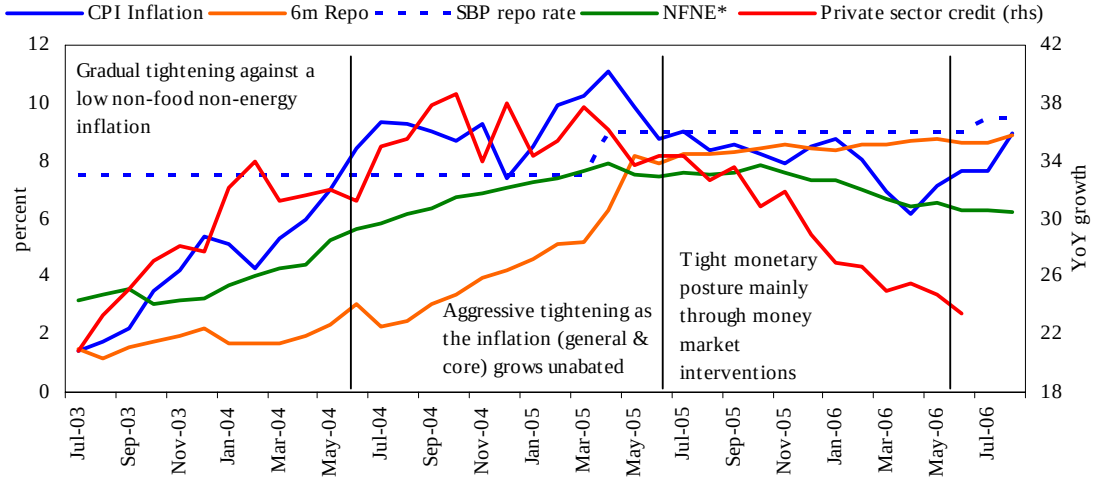
growth in percent

| | FY05 | | FY06 | |
|---|---|---|---|---|
| | Targets | Actual | Targets | Provisional estimates |
| GDP | 6.6 | 8.6 | 7.0 | 6.6 |
| Inflation | 5.0 | 9.3 | 8.0 | 7.9 |
| M2 | 14.5 | 19.3 | 12.8 | 15.2 |
| Reserve money | - | 17.6 | - | 10.2 |
| Private credit | - | 34.4 | - | 23.5 |

The impact of the improvement in the transmission channel from the policy rates to the retail rates is clearly evident in the sharp deceleration of major monetary aggregates, and the lower growth in private sector credit during FY06. Although the overall money supply growth for the year reached well above the 12.8 percent target, it was nonetheless significantly lower than the growth witnessed in FY05 (see **Table 5.2**). The fall in reserve money growth was even steeper. Similarly, the growth in credit to the private sector slowed very sharply, even though it exceeded the initial target.

As a result during FY06, for the first time in 6 years, the growth in broad money dropped below that

**Figure 5.1: Key Monetary Indicators**



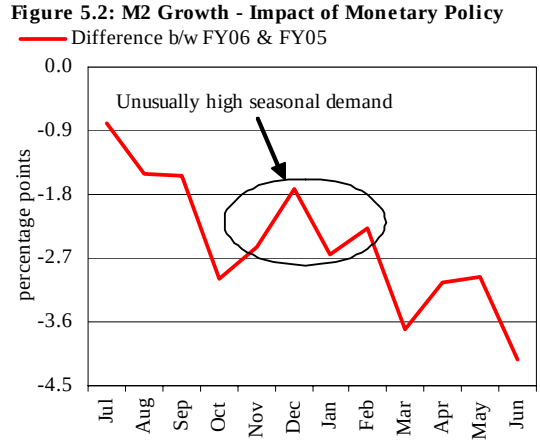

*NFNE: Non-food non-energy inflation

[1] This was because throughout H1-FY05, there was little evidence of a rise in lending rates in response to relatively sharper increase in 6-month repo rate. However, H2-FY05 onwards, the lending rates started responding due to the increase in SBP liquidity absorptions through OMOs. The objective of FY06 monetary stance was to sustain this trend.

of nominal GDP. Thus, it can be argued that the tight monetary policy was one of the significant factors in lowering inflationary pressures in the economy by reducing aggregate demand. This is suggested not only in the fall in average annual CPI inflation from 9.3 percent in FY05 to 7.9 percent in FY06, but also by the gradual deceleration in core inflation seen through FY06 (see **Figure 5.1**).

The impact of the monetary tightening is visible through most of the fiscal year, as monetary growth has continued to fall lower than that of the preceding year, in most months (see **Figure 5.2**). Only during the peak lending period of the credit cycle, the normal seasonal money demand has been *stronger* than in FY05.[2]

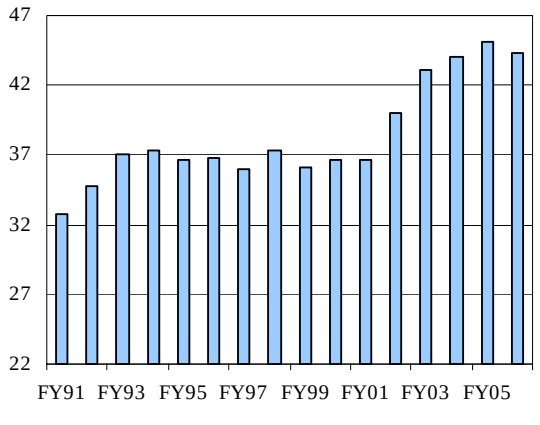
**Figure 5.2: M2 Growth - Impact of Monetary Policy**




On the whole therefore, it would appear that the central bank was successful in modulating monetary policy to contain inflation within the 8.0 percent annual target, without prejudice to the country's long term growth momentum. However, as in the previous year, the continued tight monetary policy attracted considerable debate, with some calling for a reversal of the policy in order to support a perceived faltering domestic demand and slowing exports; while others continue to argue that monetary policy has not done enough. In fact, proponents of the latter view insisted that monetary tightening should have been greater in FY06, with a further hike in policy rate, complemented by a depreciation of the Rupee.

However, the evidence for a serious slowdown in the broader economy is scanty. A look at **Figure 5.3** shows that despite the sharp deceleration, monetary growth during FY06 was amongst the highest in the last 15 years, relative to the growth in nominal GDP. Moreover, while inflation has certainly declined significantly, it should be kept in mind that the 7.9 percent average CPI inflation for FY06 remains high, and that the deceleration in core inflation in the same period has been modest. Similarly, the exceptional growth in the country's imports indicates that demand pressures are still quite strong in the economy.

**Figure 5.3: Money Supply (as percent of GDP)**




Why then didn't the central bank significantly raise its policy rate? Quite simply, this was because SBP forecasts indicated the likelihood that monetary tightening was adequate to achieve the target inflation rate, and because it was anticipated that the exceptional import growth would moderate significantly by H2-FY06. The decision for not raising the policy rate was further guided by the following:

(1) In the initial years of the current decade, the focus on monetary policy

[2] It is important to see that the money supply growth during the 2nd quarter (period of seasonal off take) has on average remained larger in FY06 at 3.1 percent compared with 2.8 percent during FY05. This suggests that the SBP stance of controlling inflation without a significant derailing of the growth momentum was effective.

had been greater on reviving economic growth rather than containing inflation. While this focus reverted to reducing inflation FY05 onwards, there was a conscious decision to lower inflationary pressures *gradually* over a longer time (2-3 years), since attempts to hasten the pace of disinflation ran the risk of destabilizing the growth momentum of the economy. Thus, the targeted inflation reduction in FY06 was a very modest 1.3 percentage points.

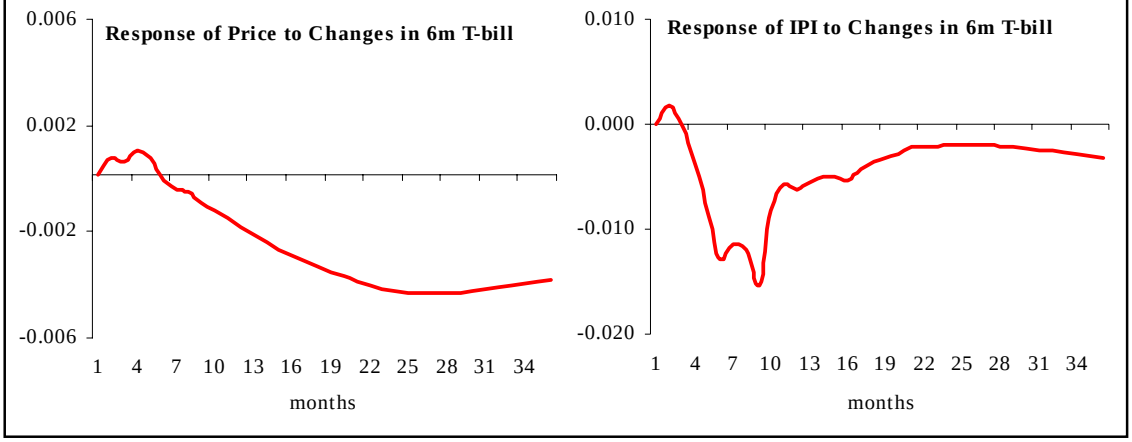
(2) Moreover, recent research findings indicated that a significant impact of monetary tightening on reducing inflation persists over almost 28 months. Thus, monetary tightening during FY06 had to encompass both, the impact of the improvement in transmission of changes in policy rate, as well as the lagged impact of the hike in policy rates during FY05 (see **Box 5.1**) on output and inflation in FY06. It was felt that the impact of aggressive policy rate increases in FY06 would have been exaggerated by the lagged impact of earlier tightening, raising the risk of an economic slowdown.

**Box 5.1: The lags involved in monetary policy transmission in Pakistan**

Only a few studies have been conducted in Pakistan that have empirically estimated the relative strength of various channels through which the monetary policy transmits to the ultimate objectives of growth and inflation. As such, the lags that are involved in transmission mechanism have also rarely been quantified. In this perspective, recent research at the SBP provides useful insights on the response of the economy to a tightening of monetary policy.

The estimation in the study has been done on monthly data from July 1996 to March 2004 using 6 months as optimal lag length in all of the VAR system. The study has concluded that during the first 6 months of a monetary shock, the aggregate price level responds very little. However, 6 months onwards, the price level declines persistently. In sharp contrast to this, the output responds very quickly and bottoms out after 7 months; later which it dissipates (see **Figure 5.1.1**).

**Figure 5.1.1: Impulse Response Function**




Another recent finding is the Khan and Schimmelpfennig (2005) which has attempted to figure out whether or not the inflation is a monetary phenomenon in Pakistan. Using the monthly data covering the period from January 1998 to June 2005, they concluded that the inflation is found to be a monetary phenomenon caused mainly by the growth in money supply and credit to private sector. According to their estimates, there is a lag of about 12 months, within which the broad money growth and the private sector credit explains the inflation developments.

**References:**

(1) Khan, Mohsin and Schimmelpfennig, Axel; Money or Wheat, SBP Research Bulletin, Vol.2, Number 1, 2006..
(2) Mubarik, Yasir Ali, Agha, Asif Idrees, Ahmed, Noor and Shah, Hastam, Transmission mechanism of monetary policy, SBP Working Paper no. 09 dated 2004.

(3) The moderate target reduction in inflation, together with evidence that inflation was finally responding to monetary policy, was a comforting factor for the central bank.[3] It should also be kept in mind that the eventual disinflation in FY06 would very probably have been even greater were it not for the unexpectedly strong rise in international oil prices.[4]

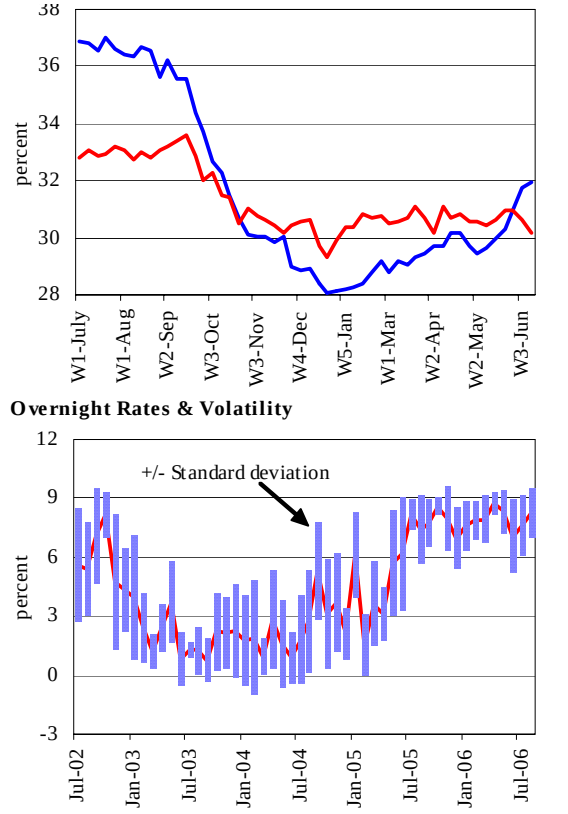
(4) The initial numbers on the trends in monetary aggregates, including M2, reserve money and private sector credit for FY06 were also showing signs of deceleration. The SBP projections for M2 growth were though higher than the original estimates; but were significantly lower than the actual growth in FY05. Private sector credit YoY growth, in particular, was showing a sharp deceleration which coupled with significant weakening in the LSM sector was a major factor in keeping the policy rate unchanged.

(5) Finally, while the external account imbalance was certainly troubling, it was hoped that the import growth would moderate significantly during H2-FY06.

As a result of above factors, the SBP focused instead on improving the transmission of its monetary signals through increased money market operations (OMOs) during FY06, concentrating on raising the lower end of the yield curve. These OMOs were aimed at reducing volatility in the short-term rates so as to define an implicit band within which the SBP wanted the interest rates to move.

Specifically, as shown in **Figure 5.4**, the major objective of increased frequency of OMOs during FY06 was not entirely to achieve excessive liquidity shortages, as seen from a higher liquidity ratio[6] in credit off take period during FY06; but to ensure lesser volatility and increased persistence in overnight rates (see **Box 5.2**). Thus with

**Figure 5.4: Liquidity Ratio**




[3] Both CPI and core inflation, which hardly showed any respite up till the end FY05; started decelerating with the start of FY06. Please see ***Chapter 3 Prices*** for details.

[4] While the government helped reduce the direct pass-through impact of high international energy prices on the economy by not passing on the full price rise to consumers, this protection was limited. Firstly, domestic energy prices did rise somewhat, and more importantly, higher international oil prices meant that the import cost of all oil derivative products (e.g. plastics, PSF, etc), as well as energy intensive goods (cement, steel, etc.) and services (transportation) inevitably increased. It may be mention here that the SBP has been using average oil prices of US$ 70 per barrel (simple average of Brent, WTI and Dubai Fateh) for FY06 in its forecast for key macro variables. The average prices for FY06 turned out as US$ 61.76 per barrel.

[6] Liquidity ratio is the ratio of total liquidity maintained (in form of reserves with SBP, NBP, cash in Pakistan and other deposits), as percent of total time and demand liabilities (net of foreign currency deposits). The liquidity ratio shown in the Figure does not include the data on Islamic Banks.

[8] Either by directly adding to availability of goods and resources in the economy or through enhancing the production capacities.

inter-bank rates reliably persisting close to the discount rate, banking institutions were increasingly forced to price-in a liquidity premium into their lending decision, leading to a relative slowdown in credit growth (see **Box 5.3**).

**Box 5.2: Volatility in Overnight rates**

The Central Banks that follow an interest rate targeting regime formally announce the level or the band within which short term rates are being kept. In these markets, moderate levels of volatility in overnight rates are not a concern for monetary policy, as the formal announcement of target interest rate (point or range) eliminates the possibility that fluctuations in the short term rates in the market would give misleading signals about monetary policy. In the markets where the short term rates are not explicitly announced also, some degree of volatility is bearable in the overnight rates. This is because; (1) the central banks allow the swings in short term interest rates as these reflect the build-up /easing of liquidity pressures which is instrumental in signaling the monetary policy stance; (2) volatility in the overnight rates is sometimes allowed to absorb certain temporary pressures so that the stability in longer money market rates could be preserved.

However, significant volatilities in the overnight interest rates is a source of concern because; (1) volatile overnight rates may obscure the policy signals. This is because, if the Central Bank accepts the temporary swings in the overnight rates that reflect technical adjustments or other seasonal factors; this could be misinterpreted as changes in the monetary stance; (2) The fact the orderly money market conditions promote a more rapid and a predictable transmission of monetary policy; (3) financial institutions may better assess and manage the interest rate and market risks with a less volatile overnight rates; (4) stable interest rates benefit the securities dealers who have to frequently borrow in very short term markets to finance their activities; and (5) if the volatility transmits up the yield curve to longer term interest rates, it may even influence the spending or investment decisions in the economy.

***Source:*** Jozef Van 't dack, Implementing monetary policy in emerging market economies: an overview of issues; BIS Policy Papers June 14, 1999

**Box 5.3: Impact of overnight rates on benchmark rates**

In order to analyze the impact of inter bank overnight rates on the benchmark 6 month repo rates, we have estimated the six month repo rate function with the following specifications:

*6m repo rate = f($RR_{t-1}$, $CO_t$, $ON_t$, $CDR_t$, $CPI_{(t-6)}$ )*

Where, the $RR_{t-1}$ represents the one month lag of 6 month repo rate; CO shows the 6 month cut off rate for the period t, ON represents the average overnight rate for the period t, CDR represents the credit to deposit ratio for the period; and CPI reflects the 6 month lag value of the point to point CPI inflation.

**Table B5.1: Dependent Variable: 6m Repo Rate**

Sample (adjusted): 2002:08 2006:06

Included observations: 47 after adjusting endpoints

| Variable | Coefficient | Std. error | T-statistic | Prob. |
|---|---|---|---|---|
| RRt-1 | 0.24 | 0.082 | 2.926 | 0.006 |
| COt | 0.584 | 0.08 | 7.337 | 0 |
| Ont | 0.06 | 0.034 | 1.768 | 0.085 |
| CDRt | 0.026 | 0.01 | 2.5 | 0.017 |
| $CPI_{t-6}$ | 0.078 | 0.032 | 2.435 | 0.019 |
| Constant | -1.644 | 0.633 | -2.597 | 0.013 |
| R-squared 0.99 | Adj R-sq 0.99 | DW 1.47 | | |

As shown in **Table B5.1**, while the movement in 6-month cut off has the largest impact on the current value of benchmark 6 month repo rates; rest of the variables, credit to deposit ration and CPI inflation shows expected sign. The impact of overnight rates on the benchmark rates is also clearly visible. This suggests that by managing the levels of overnight rates, the SBP can influence the movements in benchmark rates.

Note: The residual series passed the stability tests and the tests for i.i.d. normal properties (normality, autocorrelation, heteroskedascity).

Indeed, this was important to offset the inflationary impact of money creation stemming from government's increased fiscal operations. Specifically, the year end position of government sector borrowing appears satisfactory given that the total borrowings were slightly lower than the original estimates. However, the borrowings during the course of the year have remained a source of disquiet as the government has been borrowing heavily and directly from the SBP. As a result, although the actual growth and contribution of government sector borrowings in monetary deceleration has been

smaller compared with the preceding year (see **Table 5.3**); this required a more proactive liquidity management.

**Table 5.3: Trends in Monetary Aggregates**

percent

| | Actual growth | | Contributions to M2 | |
|---|---|---|---|---|
| | **FY05** | **FY06** | **FY05** | **FY06** |
| Govt. borrowings | 14.6 | 12.1 | 3.9 | 3.1 |
| Non-govt. borrowings | 30.7 | 22.9 | 16.8 | 13.8 |
| Other items (net) | -75.6 | -48.9 | -3.6 | -3.4 |
| Net domestic assets | 22.4 | 17.1 | 17.1 | 13.4 |
| Net foreign assets | 9.2 | 8.1 | 2.2 | 1.7 |
| Money supply | **19.3** | **15.2** | **19.3** | **15.2** |

The impact of these tightening measures, coupled with the lagged transmission of the earlier tightening measures, was evident from the deceleration of private sector credit growth from 34.4 percent during FY05 to 23.5 percent during FY06. This slowdown appears to be significantly higher when seen from the context of sharp increase in trade related loans and increased banks' investments in securities of private corporate sector during the latter period. Indeed, it was due to this slowdown in the private sector credit growth that the SBP was able to eliminate the monetary overhang, that had been a persistent feature for the last 6 years (see **Figure 5.5**).

Although the central bank has had substantial success in improving the transmission of monetary policy signals during FY06, the task for FY07, i.e., lowering inflation rate further to 6.5 percent while maintaining the real GDP growth at 7.0 percent is more challenging for SBP.

1. Given the tradeoff between disinflation and slowdown in aggregate demand (or loss of output) in the short run, the central bank has to maintain a fair balance between reasonable economic growth and reduction in inflationary pressures. Unfortunately as the risk of over-restraining economic growth (i.e., cost of disinflation) rises with the incremental slowdown in inflation rate, the demand management through monetary policy has become more challenging for SBP.

**Box 5.4: The desired pace of monetary tightening, with and without credibility**

The economic research has reached to a consensus that the policy credibility is the decisive factor in determining the appropriate speed of disinflation. This result is illustrated through two extreme examples: (1) Full credibility, where firms set their wages and prices in line with the announced money growth trajectory by the Central Bank; and (2) non-credibility when firms set their wages and prices in accordance with the observed trend in money growth rate with a presumption that the disinflation measures would end soon.

The rationale to this argument is as follows. First, in the case of full credibility, firms set in too high wages and prices in anticipation of future inflation. A rapid disinflation (known as cold-turkey disinflation) as measured by aggressive monetary tightening results in a sharply reduced level of money stock. This creates a serious price overhang by creating a large gap between the desired and actual prices. As a result of this gap, the inflation though falls but not quickly enough to match the drastically reduced money growth rate, resulting in large output losses. "In this regard, it is argued that *nominal rigidities arising from the staggered timing of wage and price adjustments are the main cause of costly disinflations*". In contrast to this, a policy of gradually decline in money growth precludes the development of a price overhang. Therefore, the output losses are relatively small as inflation falls rather quickly to meet the gradually declining money growth. As a result, cold-turkey disinflation leads to greater output losses in a regime of full credibility.

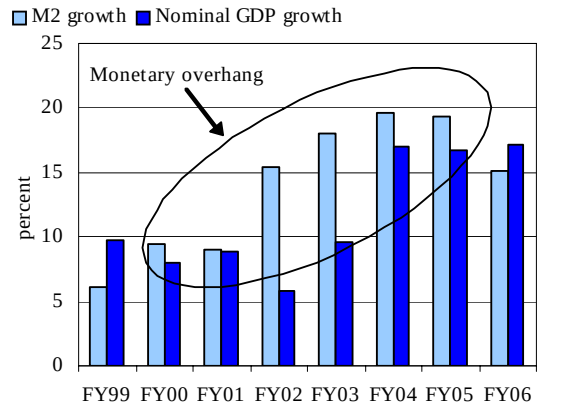
However, in the case of non-credibility, a drastic monetary tightening results in a large number of firms readjusting their wages and prices immediately. Inflation falls quickly, minimizing output losses. In contrast, a gradual disinflation policy without the credibility of policy announcement fails to induce firms to make any special adjustment, since the gap between desired prices and actual prices is quite small. Further, even if the disinflation measures proceed, firms would set prices higher than the actual level in the expectation that it is about to end soon.. Thus, the overhang of the preset prices and *exacerbated price inertia* would result in substantial output losses. Empirical studies on a number of disinflation episodes suggest that cold-turkey approach is less costly than gradualism.

Source: Sanguck, Loh, A cold turkey versus a gradualist approach in a menu cost model; Topics in Macro Economics (The BE Journal

2. In order to achieve the inflation target, the money supply has been envisaged to grow at 13.5 percent, significantly lower than the realized money supply growth of 15.2 percent during FY06. Since these estimates are based on the expected external aid inflows and privatization

receipts (that would be financing the widening fiscal deficit), any slippages or lapses in realization of such inflows may increase the government borrowings from the SBP for some time thus adding further liquidity in the banking system.

**Figure 5.5: Monetary Overhang**




3. The widening external imbalances caused mainly by the high growth of domestic imports reflect the existence of strong demand pressures in the economy. Further, the strong imports of machinery and other capital goods for capacity creation in the domestic industry during FY06 also indicated the presence of capacity constraints emerging from demand-supply gap. Thus, to the extent the rising imports were alleviating the pressure on aggregate domestic demand,[8] the use of exchange rate policy could potentially shift the demand pressures from foreign goods to domestic resources. In extreme case, such a policy could even adversely affect the economic growth by stifling capacity expansions. In such a situation, the burden of adjustment therefore disproportionately falls on monetary policy.

4. Unfortunately, the current fiscal policy is also inconsistent with the tight monetary stance. Not only is the rising fiscal deficit adding to the aggregate demand, its financing (through central bank borrowing or external sources) is making liquidity management difficult for SBP. Since the efforts to curb inflationary pressures depend significantly upon the inflation expectations that in turn depend on the credibility of the SBP (see **Box 5.4**); the monetization of the fiscal deficit has had serious implications on the effectiveness of monetary policy.

5. The deceleration in CPI inflation during FY06 appeared to be unstable given a sharp up tick April 2006 onwards. More importantly, estimates suggest that the recent hike in international oil prices is there to persist at least in the medium term. Thus with the prevailing supply side pressures to the inflation; it was extremely important to restrain excessive growth in the aggregate demand of the economy.

6. Finally the monetary growth which had remained within the target level up till end May 2006, registered a phenomenal growth of 2.6 percent during June 2006 especially during the last week. As a result, the FY06 full year monetary growth though remained smaller than the preceding year growth; but exceeded the target as envisaged in the Credit Plan. Given that part of the end month increase in M2 usually persists (as the trends indicate); it was likely that resulting inflationary pressures would be carried forward into FY07.[9]

As a result, the Credit Plan for FY07 has been aimed at lowering the inflation further to 6.5 percent, while maintaining the FY06 real GDP growth target at 7.0 percent in view of the better harvests of key crop and the expected recovery in industrial sector. To achieve this, the growth in money supply

[9] For a detailed analysis on the end June impact of growth of monetary aggregates, please see ***Monetary Policy Statement*** for July-December 2006.

has been envisaged at 13.5 percent, significantly lower than the realized money supply growth of 15.2 percent during FY06.

Indeed, given the above mentioned challenges in achieving the inflation target of 6.5 percent for FY07 appeared ambitious and required a few more episodes of aggressive money supply tightening.

Consequently, the SBP increased the extent of monetary tightening FY06 onwards; re-committing itself to achieve the objective of price stability. In doing so, the SBP has raised the reserve requirements during July 2006 to drain significant volume of liquidity from the inter bank market[10] (see **Special Section 1**). Further, in order to accommodate the short term rates to signal the liquidity tightening; the SBP also moved the discount rate up by 50 basis points, a week later.

**Table 5.4: Causative Factors of Money Supply**
billion Rupees

| | FY05 | FY06 | |
|---|---|---|---|
| | Actual | Credit plan | Actual |
| **Monetary assets** | **479.8** | **380.0** | **450.1** |
| *percent change* | *19.3* | *12.8* | *15.2* |
| **1. NFA** | **53.7** | **15.0** | **51.5** |
| SBP | -8.5 | | 61.8 |
| Scheduled banks | 62.3 | | -10.3 |
| **2. NDA** | **426.0** | **365.0** | **398.6** |
| SBP | 130.3 | | 22.5 |
| Scheduled banks | 295.7 | | 376.1 |
| **A. Government sector** | **95.8** | **120.0** | **90.8** |
| a. Budgetary support | 71.8 | 98.0 | 70.9 |
| SBP | 155.6 | | 135.1 |
| Scheduled banks | -83.8 | | -64.1 |
| b. Commodity operations | 21.9 | 20.0 | 19.9 |
| c. Others | 2.0 | 2.0 | -0.1 |
| **B. Non government sector** | **418.7** | **320.0** | **408.4** |
| a. Private sector credit | 437.8 | 330.0 | 401.8 |
| b. PSEs | -12.7 | -10.0 | 7.6 |
| c. Other financial institutions | -6.4 | 0.0 | -1.0 |
| **C. Other Items (net )** | **-88.4** | **-75.0** | **-100.5** |
| a. SBP | -19.2 | | -111.9 |
| b. Scheduled banks | -69.2 | | 11.4 |

The increase in reserve requirements and the discount rate would certainly be instrumental in achieving a further slowdown in monetary expansion as envisaged in the Credit Plan for FY07. This is because the revised reserve requirements are expected to activate the bank lending channel of the transmission mechanism that will aid in amplifying the interest rate channel for controlling inflation. However, the SBP will continue to monitor the risks to the economy and would be adjusting its policies in order to protect long-term growth prospects of the economy.

### 5.2 Monetary Survey

The money supply during FY06 registered a growth of 15.2 percent; significantly lower than the FY05 growth of 19.3 percent (see **Table 5.4**). The slow growth was caused by both the NDA and NFA (though both exceeded the estimates in the Credit Plan for FY06). However, the contribution of NFA to the slowdown was marginal. The dominant contribution was from a sharp fall in private sector credit that was complemented by a small drop in government borrowings.

#### 5.2.1 Net Foreign Assets

While the absolute change in the NFA of the banking system during FY06 was only a little lower than that in the preceding year, the underlying determinants varied significantly in the two years, reflecting the difference in exchange rate expectations in the two periods.

Through most of FY05 the market anticipated a large depreciation of the rupee, which led to a rise in forex deposits of banks, and substantial net retirement of outstanding FE-25 loans (see **Figure 5.6**). Both of these factors increased the scheduled banks' NFA. Conversely, during FY06, the expectations of exchange rate stability had led to a slowdown in mobilization of FE-25 deposits and

[10] Further the SBP has also introduced for the first time separate CRR requirements on demand and time liabilities; increasing the CRR requirements on demand liabilities and lowering the same for the time liabilities. This was done to provide banks an incentive to raise the returns on deposits especially on the longer tenure deposits.

the increase in foreign currency loans. Both of these factors reduced the scheduled banks' NFA during FY06.

On the other hand, through most of the FY06, the SBP NFA had shown a similar trend as in FY05 reflecting mainly the SBP provision of liquidity support for oil import payments (see **Figure 5.7**). However, this drain on SBP NFA was offset March 2006 onwards by large inflows including the proceeds from successful privatization transaction and from the issuance of sovereign Eurobonds.

Interestingly, although the country's overall balance of payments improved FY06 compared to FY05, the growth in the net foreign assets was lower in FY06. This apparent disconnect is explained by differences in the accounting treatment of the BoP and the NFA of the banking system (see **Box 5.5**).

**Figure 5.6: Utilization of FE-25 Deposits**

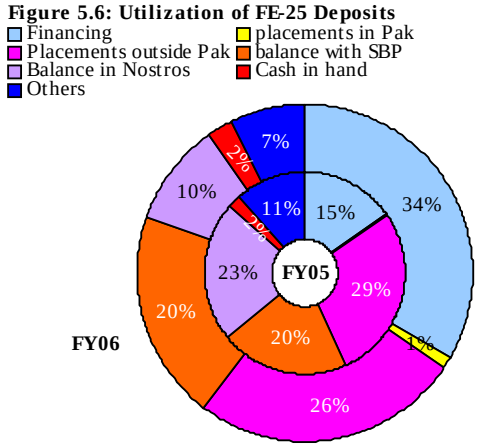



**Figure 5.7: SBP Market Interventions and NFA of SBP**

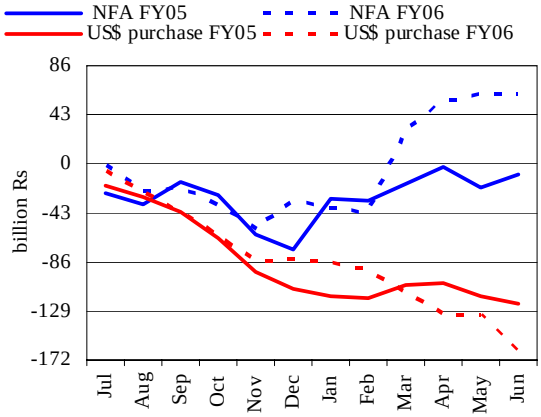
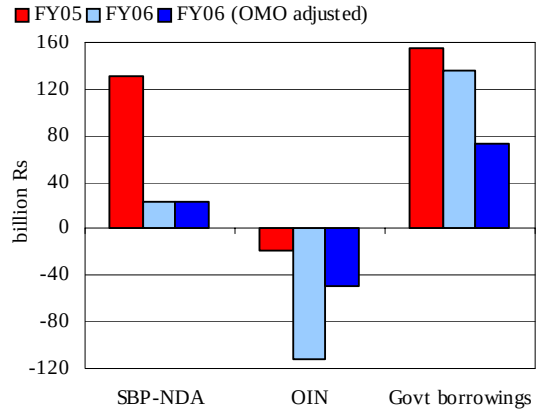



**Figure 5.8: Composition of NDA of SBP**




### 5.2.2 Net Domestic Assets

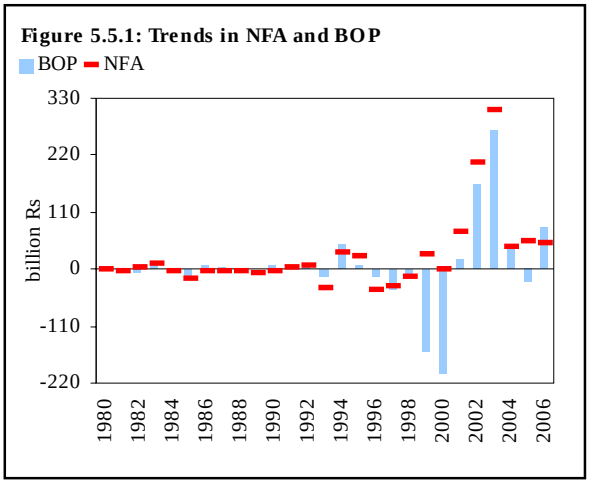
The slowdown in M2 growth during FY06 stemmed principally by a slow down in NDA growth which in turn was caused by the slowdown in private sector credit and the government budgetary borrowings. The composition of NDA however shows that while the NDA of the SBP has registered a significant decline; the NDA of scheduled banks has registered a larger expansion during FY06 as lower government retirements and increase in OIN have masked the impact of sharp slowdown in private sector credit.

Most of the decline in SBP NDA, intriguingly, was caused by a sharp decline in other items (net) of the SBP as the slowdown in budgetary borrowings was relatively smaller (see **Figure 5.8**). However, the data during the two periods is not comparable because of a change in the accounting procedure for reporting the OMO transactions during FY06. Specifically, prior to July 2005, the sale and purchase of government securities through OMOs used to result in shift of claims on government between the SBP and scheduled banks. However, July 2005 onwards, these transactions are only reflected in the other items (net). Specifically, the SBP liquidity absorptions through OMOs have been recorded as a decline in SBP OIN and an increase in scheduled banks' OIN during FY06; that

were reported as decline in government borrowings from SBP during FY05. Adjusting for these transactions to reach at a comparable position between FY06 and FY05, over 76 percent of the slowdown in SBP NDA was caused by the slowdown in government borrowing from the SBP during FY06.

**Box 5.5: Difference in the BoP balance and NFA**

It is widely assumed that the net foreign assets of the economy that appear on the monetary survey is a mere reflection of country's balance of payments. However, often significant disparities are found between the two. A quick look at the trends in Pakistan's BoP and NFA reveals that the difference between the two accounts has customarily been negligible (often reflective of exchange rate adjustments). However in the past few years, the difference between the NFA and BoP has increased significantly (see **Figure 5.5.1**).




This disparity is explained mainly by the difference in accounting treatment of two major variables; (1) outstanding export bills; and (2) FE-25 nostro accounts.

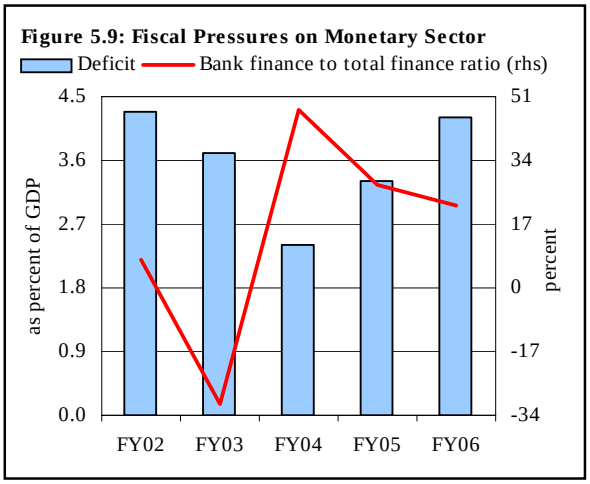
Specifically, as the name suggests, the FE-25 nostros constitute the placements by domestic commercial banks with their foreign counterparts out of FE-25 deposits mobilized by these banks. In BoP, the increases in FE-25 deposits appear on the current account (as unilateral transfer) with a positive sign while the increases in FE-25 nostros appear on the financial account with a negative sign[1]. Thus, in the overall balance, the actual increase (or decline) in FE-25 nostros is diluted[2]. However, in the NFA, these two accounts are reported separately in assets and liabilities without being netted. Similarly, the outstanding export bills (OEB) appear in the BoP with negative sign in the Financial Account; as the positive counter entry is appeared in the exports under the Trade Account. Thus, in the overall balance, the value of OEB is netted off. However, in the NFA, OEBs are reported as an asset entry since the OEBs reflect the foreign currency receivables. Adjusting for these two entries, the NFA account and the overall balance in BoP reconcile.

[1]An increase in assets or a decrease in liabilities is represented by a negative sign in the financial account. In an accounting sense, this can be considered as a foreign exchange outflow from the country. Similarly, a decrease in assets or an increase in liabilities is reported with positive sign, i.e., this will be treated as a foreign exchange inflow (for details please see **Box 7.4** in **SBP Annual Report** for FY05.

[2]However, if for instance, the FE-25 nostros decline along with the increase in FE-25 deposits, the FE-25 nostros would also appear with a positive sign in the Financial Account.

***Government Budgetary Borrowings***

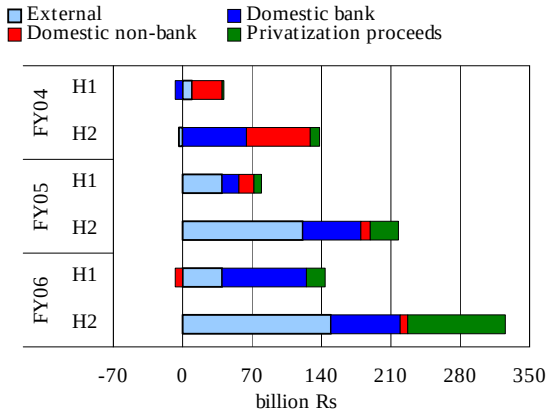
Although the fiscal gap has worsened during FY06, the government borrowings for budgetary support from the banking system increased by only Rs 70.9 billion; slightly lower than Rs 71.8 billion in FY05. In other words, a smaller share of the deficit was being financed through the domestic banking system in FY06 (see **Figure 5.9)**.




This is explained by greater availability of external financing in FY06. As seen in **Figure 5.8**, the reliance on domestic non-bank borrowings has remained more or less unchanged from the previous year, and it was a sharp increase in external financing (including the issuance of Eurobonds, loans from the donor agencies and the large inflows under privatization receipts) that helped government to limit its domestic bank borrowings during FY06 (see **Figure 5.10**), despite a larger fiscal deficit.

Ostensibly the lower financing of the deficit from the banking system by the government would have reduced the crowding out of the private sector. However, given that the SBP was continually mopping up excess liquidity from the system, there would be no net impact on credit growth (see **Box 5.6**). Of greater importance is the fact that an increasing part of the government borrowings from the banking system were through T-Bills, as the amount of PIB/FIB maturities continued to rise. While this strategy would, in the short-term, reduce the interest cost of government debt, it would also leave this cost vulnerable to shifts in short-term domestic interest rates. It may therefore be desirable for local borrowings to be conducted through a mix of long- and short tenor instruments. In this regard, the resumption of large PIB issuance will have favorable implications.

**Figure 5.10: Sources of Budgetary Finance**




**Box 5.6: Monetary implications of alternate modes of budgetary finance**

Interestingly, financing the budget deficit through different sources has varying monetary implications;

***(1) Central bank borrowing:*** Theoretically, government borrowing directly from the SBP is referred to as 'monetization' of budget deficit. This is because SBP borrowings result in an increase in monetary base and thus the multiplier times impact on money supply in the economy, if not sterilized (through OMOs, for instance). Therefore, such borrowings could be a source of inflationary pressures. However, if the SBP shifts the claims on government to the commercial banks, the implications would be similar to commercial bank borrowings.

***(2) Commercial bank borrowing:*** In contrast to SBP borrowing, when the government borrows from the commercial banks, the monetary base does not increase; instead, the composition of banks' assets changes and the money keeps on increasing through multiplier effect. However, excessive government borrowings from the commercial banks may create significant upward pressures on the interest rates and therefore can result in crowding out of private investment.

***(3) Non-bank domestic borrowing:*** The non-bank domestic borrowing in Pakistan comprises principally of the investments in National Savings Schemes instruments and non- bank corporate sector holding of Pakistan Investment Bonds. Clearly, the government borrowings through these sources do not result in money creation since the process does not involve banking intermediation. Rather, non-bank borrowing is a source of disintermediation in the economy. For instance, in case of investment in NSS instruments or the PIBs; the investing amount would actually be 'transferred' from the investor's deposit (debit account) to the government deposit (credit account). Therefore, as an immediate impact, banks are left with lesser liquidity available for private sector credit. Eventually, financing through non-bank borrowings leads to disintermediation when the funds so generated are transferred to the government deposits with the SBP.

***(4) External financing:*** External financing through foreign loans from monetary perspectives has almost similar implications as in the case of monetization. Loans from international donor agencies or funds generated through issuance of sovereign bonds increases the NFA of SBP. If the SBP does not sterilize the impact of increase in NFA; the monetary base will increase.

However, in terms of interest rate differential between the domestic and foreign currency, government may benefit in the form of low debt servicing cost. Nevertheless, the reliance on external financing leads to an accumulation of external debt, which needs to be serviced and repaid eventually. This makes the economy potentially vulnerable to changes in the exchange rate and global interest rates. Therefore the deficits financed in this way need to be assessed in the context of the external debt position of the country, the medium-term balance of payments prospects and the terms under which borrowing takes place.

### *Private Sector Credit*

Private sector credit registered a sharp slowdown during FY06 compared with FY05 (see **Figure 5.11**). This was an outcome of a number of factors, including: (1) a slowdown in the production of synthetic textiles as an outcome of increase in yarn imports; (2) an increase in loan write-offs by

ZTBL; (3) the domestic telecom industry seeking finances from the external sector; (4) liquidity constraints mainly with smaller domestic banks; and (5) increase in lending rates, especially during H2-FY06 that has decelerated significantly the growth in consumer finance (see **Figure 5.12**).

***Concentration declines further***

The credit growth during FY06 was broad based and the trend of declining sectoral concentration seen for the last four years continued into this year as well. A major improvement was the decline in concentration ratio within the manufacturing sector. As shown in **Figure 5.13**, while the Herfindahl Index for all sectors has been declining for last four years; the H-index for manufacturing sector also registered a decline during FY06 after increasing during the preceding three years[12].

**Figure 5.11: Credit to Private Sector**

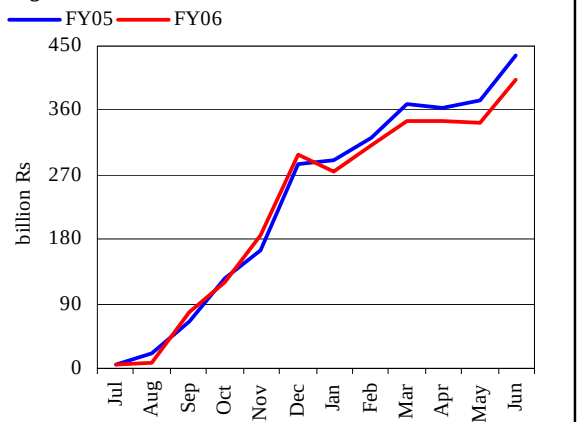
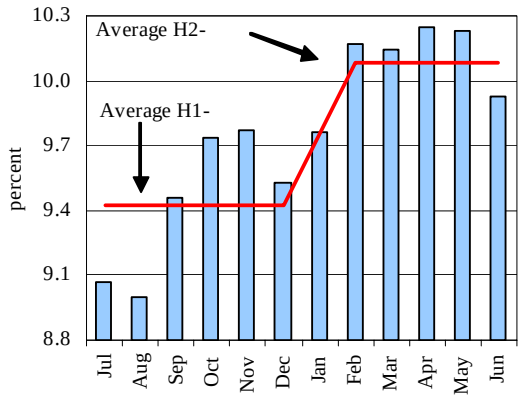
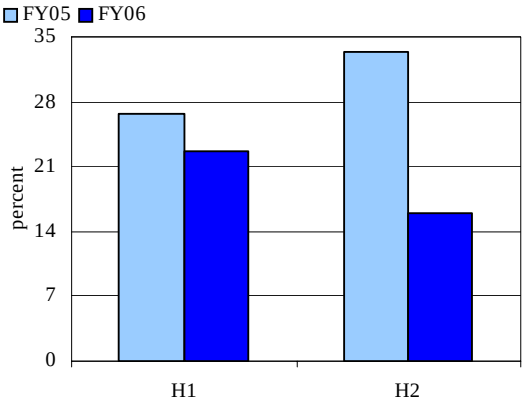



**Figure 5.12: Weighted Average Lending Rates**




**Growth in Consumer Finance**




The decline in H-index manufacturing sector is effectively the outcome of a decline in the share of textile sector credit. However, the concentration of credit in the three sectors with largest share in outstanding credit volume has slightly increased during FY06.[13] This was mainly due to a 2.7 percentage point increase in the share of credit to the cement sector

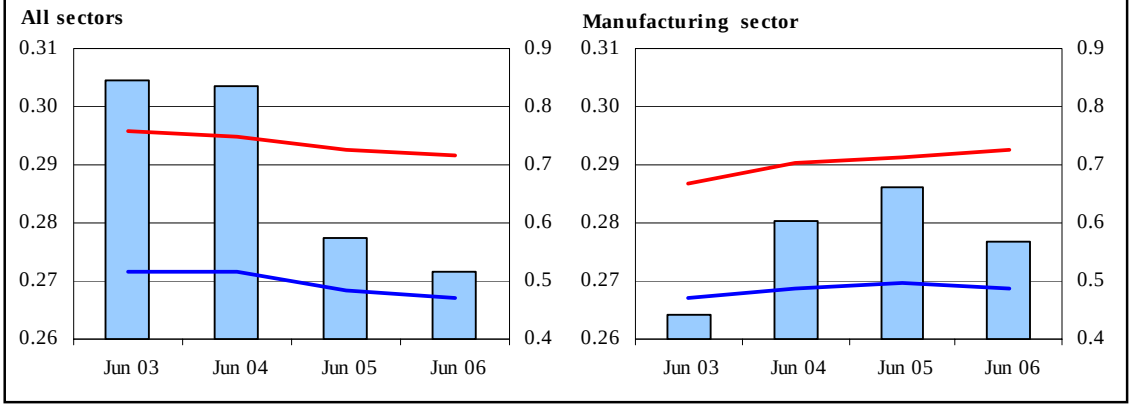
***Business Sector Loans***

As seen in **Table 5.5**, at first look, all major sectors of the economy registered a slowdown in credit off take, suggesting a fall in aggregate demand due to a tightening of monetary policy. Indeed, the continuous increase in lending rates has had a major role in constraining the credit growth. Although, a part of the deceleration in credit off-take in a few sectors incorporates unrelated one-off factors; but the contribution of these factors were quite insignificant in the overall slowdown.

[12] The Herfindahl index is the sum of is the sum of squared shares of major sectors in total bank credit. As the value of index gets closer to 1, it indicates rising concentration; closer to 0 suggests rising diversification.

[13]The largest sectors in terms of share in outstanding manufacturing credit include manufacturing of *textiles*, *food & beverages* and *non-metallic minerals* (including cement)

**Figure 5.13: Sectoral Concentration of Credit**




The apparent slowdown of credit off-take in the agriculture sector is simply a reflection of loan write offs by ZTBL.[14] Specifically, ZTBL wrote off loans amounting to over Rs 22.0 billion during FY06. Adjusting for this, the increase in agriculture sector credit during FY06 is almost equal to that of FY05.[15]

**Table 5.5: Growth in Private Sector Credit**

percent

| | FY05 | FY06 |
|---|---|---|
| **1. Private sector businesses** | 32.2 | 20.3 |
| A. Agriculture | 12.0 | 3.5 |
| B. Manufacturing | 28.5 | 17.6 |
| a. Textiles | 30.2 | 13.6 |
| *of which* synthetic | 42.6 | -12.8 |
| b. Fertilizers and nitrogen | -19.3 | 62.4 |
| c. Cement | 72.9 | 96.8 |
| C. Electricity, gas and water | 56.0 | 44.4 |
| D. Construction | 72.3 | 24.8 |
| E. Commerce and trade | 27.6 | 43.9 |
| F. Transport & communications | 111.3 | 20.7 |
| *of which* telecom | 185.3 | 39.9 |
| **2. Personal** | 63.2 | 33.2 |
| *Of which* consumer finance | 74.7 | 38.8 |

Within the manufacturing sector, the frequency distribution curve shows that credit growth in a large number of industries has slowed down significantly during FY06 (see **Figure 5.14**). In addition to the impact of base effect and pricing effect; the slowdown is attributed to a number of industry specific factors. For instance, the slowdown in textile industry stemmed mainly from the decline in production of synthetic textiles on account of heavy imports[16].

The deceleration in credit growth to construction industry is perhaps reflective of a relative decline in building material prices in FY06. Decomposing the construction sector credit, it is interesting to note that the credit for building projects registered a slowdown while credit for infrastructure projects registered an increase during FY06 (see **Figure 5.15**)

Finally, the slowdown in growth of credit to telecommunication sector was caused by absence of one-time fixed investment loans during FY05 by a new cellular company to start operations in Pakistan. However, it should be noted that during FY06, the two privately owned domestic mobile companies

[14] When a loan is written off, the outstanding amount is removed from the balance sheet; thus underestimates the actual increase in total loans during the period.

[15] During December 2005, the ZTBL announced a new policy regarding the loan write offs; as per which, the bank wrote off loan amounting to Rs 5.2 billion during December 2005 and Rs 16.7 billion during March 2006. In the previous year, the total write offs equaled Rs 3.5 billion.

[16] For details, please see ***SBP 2nd Quarterly Report*** for ***2005-06***.

have sought to raise funds from the international market and have already signed contracts of loans amounting US $ 190 million. Of these, over US $ 150 million were realized during FY06.

***Trade financing becomes appealing***

After a lackluster showing during FY05, trade related loans registered sharp growth during FY06, primarily due to an increase in foreign currency loans (see **Figure 5.16**). Specifically, the foreign currency loans registered a sharp increase of Rs 42.2 billion compared with net retirements of Rs 20.0 billion in the preceding year. The loans under export finance scheme, however, registered net retirements.

This contrasting trend in the two financing products appears to be a mirror image of exchange rate movements and also following the trend in interest rate differential. Specifically, the expectations of Rupee depreciation during the seasonal credit off take period July to December has led to a shift in the composition of trade related loans; substituting FE-25 loans through EFS borrowings.

In sharp contrast to this, the exchange rate remained stable throughout the H1-FY06. Moreover, the interest rate differential between the FE-25 loans and EFS also increased to 5.4 percentage points (on average) compared with an increase of only 1.8 percentage points during H1-FY05. As a result, the foreign currency loans increased sharply while the EFS loans registered a net decline.

With start of FY07, however, the SBP has slashed the refinance rate by one percentage point and has also squeezed the maximum margins that the banks may earn on EFS financing by 0.5 percentage points. With the resultant narrowing interest rate differential and the SBP efforts to liberalize the access of concessional long-term loans for export oriented projects (see **Box 5.7**), it is expected that the next year would witness a growth in overall trade related loans. On the other hand, the trend in FC loans would depend upon the expectation of exchange rate stability (see **Figure 5.17**).

**Figure 5.14: Frequency Distribution of Credit Growth in Manufacturing Units**

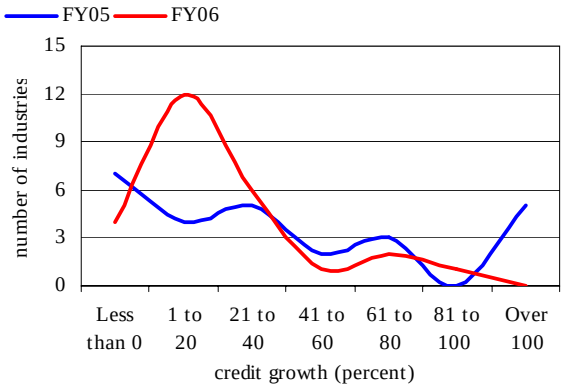



**Figure 5.15: Loans to Construction Industry**

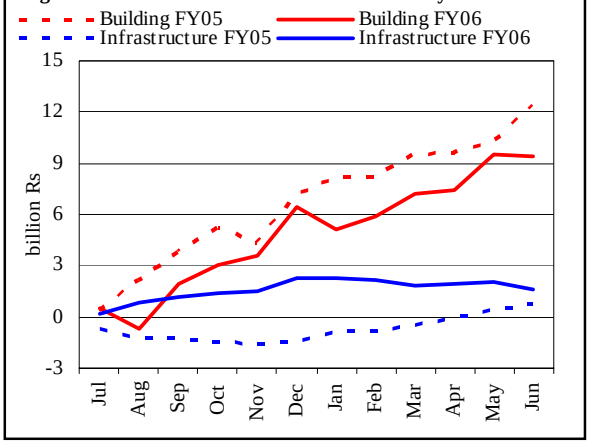
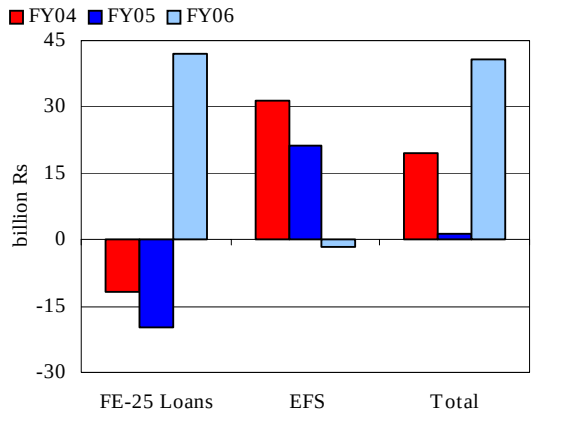



**Figure 5.16: Changes in Trade Related Loans**



**Box 5.7: Long Term Finance- Export Oriented Project**

LTF-EOP was designed to provide the financing facilities to the borrower from exporting sector (with special thrust to promote SME sector), on attractive terms and conditions on import of plant, machinery, equipments and accessories that were not manufactured locally but used in the production of goods for export.[18] Under the scheme, 50 percent of credits sanctioned, of total credit limit, were required to go the SME Sector.

Initially, the pricing of the credit under the scheme were linked with the weighted average T-bills and PIB rates in the primary market. In the prevailing low interest rate scenario in FY04, the scheme could not get the attention of the borrowers although the long term facility reduced the interest rate risk.

However, as interest rates started moving higher in FY05, the LTF-EOP rates remained almost unchanged primarily due to rejection or abandonment of PIB auctions after last successful auction of May 29 2004 (see **Table B5.2**). Even after the recent successful PIB auction of May 19 2006, the rates kept unchanged, to facilitate the export of the country.[19] Resultantly, the interest rate differential between LTF-EOP rates and weighted average rates of the relevant instruments was in the range of 4.6-5.4 percent range (see **Table B5.3**). The huge interest rate differential offered under the scheme is expected to generate considerable interest in the scheme going forward.

**Table B5.2: History of LTF-EOP Rates**

| Date of change | upto 2-y | 2-m to 3-y | 3-y to 7.5-y |
|---|---|---|---|
| 18-May-04 | 2.0 | 3.8 | 4.9 |
| 3-Mar-05 | 4.0 | 4.0 | 5.0 |
| 28-Feb-06 | 4.0 | 4.0 | 5.0 |

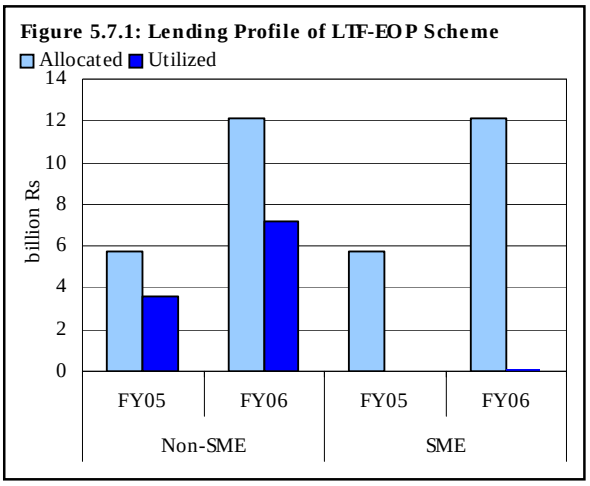
**Table B5.3: Subsidy under LTF-EOP**

| Tenor of financing | Instrument for benchmark | WA yield on benchmark instruments[a] | Rate of refinance | Implicit subsidy |
|---|---|---|---|---|
| Up to 2-yrs | 12-m t-bills rates | 9.00 | 4.00 | 5.00 |
| Over 2-yrs to 3-yrs | 3-yr PIB rates | 9.39 | 4.00 | 5.39 |
| Over 3-yrs to 7½-yrs. | 5-yr PIB rates | 9.65 | 5.00 | 4.65 |

[a]WAY of the last auction

In FY05 and FY06, despite increasing interest rate differential, a few investors got attracted to the scheme. Some of the reasons for lesser attention are; firstly, as discussed above, under the scheme 50% credit of the total limit sanctioned was required to go the Small and Medium Enterprise sector. SME's appetite for the credit specifically, in export oriented sector, is little appraisable and hence a very few credit worthy borrowers availed the facility. At the same time banks were overly cautious with the SME business as the higher presumed risk associated with the sector could have increased the risk profile of their assets.[20] Thus, almost all of the credit limits (50 percent of the total limit) allocated for the more SME sector remained unutilized (see **Figure 5.7.1**).

**Figure 5.7.1: Lending Profile of LTF-EOP Scheme**




Secondly, the Credit limit of the LTF-EOP was defined as a sub-limit of the EFS (Export Finance Scheme).[21] Interestingly, the EFS is a short term financing scheme while the LTFEOP is a long term. The mismatch of "duration" might have turned the LTF-EOP into a less desirable for the banks to promote. And finally, as the deposit rates were low in FY05, it was in the interest of the banks to finance the credit demand from their own sources.

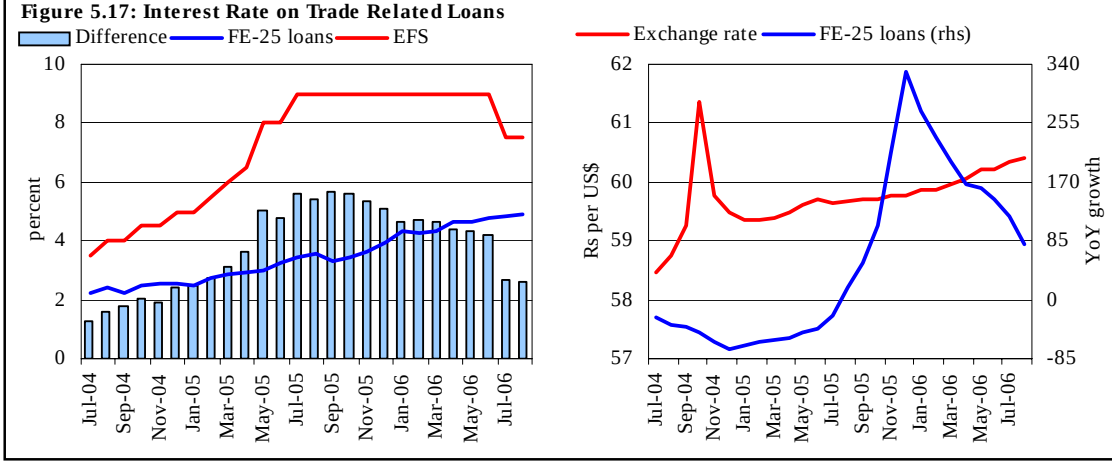
Therefore to remove the above anomalies, SBP on July 14 2006, announced the revamping of LTF-EOP facility, bringing about a number of changes in the scheme. The important of which is firstly, the initial restriction of 50% of the credit required to be disbursed

[18] See BPD Circular No.14 of 2004.
[19] The huge trade deficit of FY06 due to steep rise in import and inappropriate performance of export might have kept the revision of the rates in abeyance.
[20] The major source of concern for the banks was the lack of documentation of the SME sector. Besides that, the dealing greater number of SME borrower with low credit volume was increasing the transaction cost of the banks.
[21] In FY04, 10%

to the SME sector is relaxed. And secondly, procedure of allocating limit of LTF-EOP as a sub-limit of EFS was revised. Instead, a separate limit for the scheme has been allocated for the purpose. Both moves are expected to renew the investors' interest in the scheme.

To facilitate further the borrowers from the exporting sector, SBP announced on September 04 2006, credits swap for the textile sector (other than spinning) that was disbursed by the banks after January 01 2003.[22] That means all the credit extended to the textile sector other than spinning and that exports 50% of their output; will enter for a credit swap with SBP at the announced rate of the scheme. As result of this relaxation initial estimate show that SBP might go for credit swap up to Rs 30 billion.[23] The purpose is to help the textile sector that previously borrowed and made investment at the floating KIBOR rates and are now feeling the pain of sharp inclination in KIBOR due to monetary tightening.

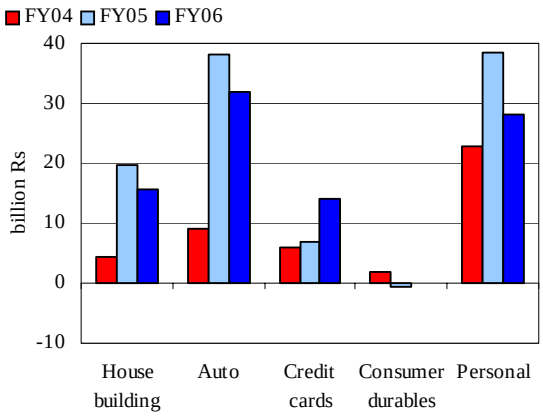
**Figure 5.17: Interest Rate on Trade Related Loans**




***Personal Sector loans***

Within the personal finance segment, consumer finance registered a sharp slowdown. This is seen in all financing products other than credit cards loans, where growth was stronger than in FY05 (see **Figure 5.18**). However, since credit card loans constitute a relatively small component in consumer finance, the aggregate credit growth in consumer finance weakened significantly from 69.0 percent in FY05 to 42.2 percent in FY06. As seen in the **Figure 5.12**, a significant part of this slowdown was visible in H2-FY06 principally due to a rise in the weighted average lending rates that have reached to double digits after remaining in single digit during the previous three years.

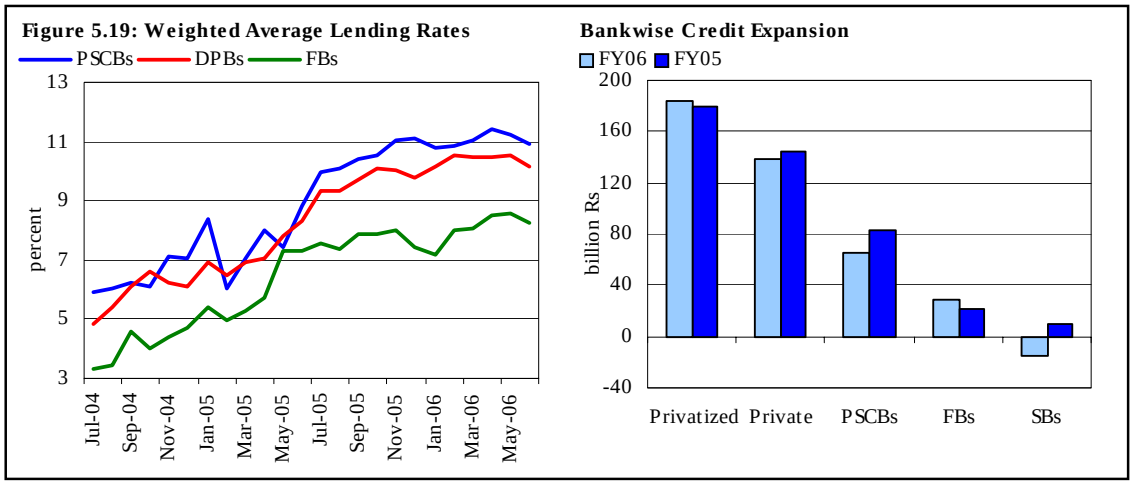
**Figure 5.18: Changes in Consumer Finance**




Unlike FY04 and FY05, most of the increase (in absolute terms) in consumer sector loans during FY06 was driven by the auto loans. This was because a few more banks have entered in the auto finance business along with innovated products.

[22] See SMED Circular No.19 of 2006.
[23] This figure could swell further substantially.

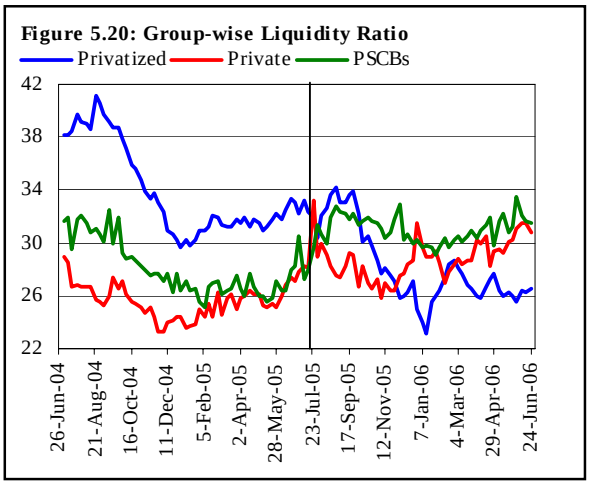
The slowdown in personal loans seems to be an outcome of the SBP measures to curb the bank borrowings to finance speculative activities as well as to improved the transmission of the tight monetary policy. Specifically, after acquiring sufficient evidence on the use of personal loans to finance stock market activities, the SBP had directed all the banks to ensure that the borrowers' personal loan accounts should not be utilized for investing in IPOs. Soon after the decision, the growth in personal loans decelerated.[24] Finally, the housing finance activities after having registered




over 300 percent growth in the FY05 have decelerated during FY06, recording a growth of 57.5 percent.

***Privatized Banks Taking the Lead***

The largest five banks[25] continued to dominate the credit growth, although the share of this group in incremental credit declined to 52.6 percent during FY06 compared with 54.2 percent in the preceding year. Most of this share was captured by the sharp growth in credit expansion by foreign banks. The share of foreign banks in incremental credit has increased from 5.0 percent in FY05 to 7.1 percent during FY06. Indeed this growth reflects the widening spread between the lending rates offered by domestic banks and foreign banks. More specifically, the spread between the WALR of public sector banks with respect to foreign banks has widened to 288 basis points on average compared with 197 basis points on average during FY05 (see **Figure 5.19**).




Within the private sector banks, the large privatized banks were able to increase credit expansion over the preceding year. As shown in **Figure 5.20**, the privatized banks group in the preceding year operated with maximum liquidity comfort in the preceding year, despite the largest contribution in private sector credit. During FY06, however, a larger credit expansion by this group has led to a sharp decline in liquidity ratio. The smaller private banks, however, could not maintain the preceding

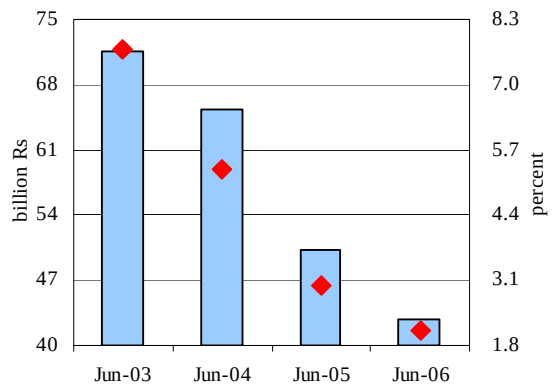
[24] Please see ***Financial Sector Assessment 2005*** for details.
[25] The largest five banks include HBL, NBP, MCB, ABL and UBL.

year's performance largely on account of liquidity constraints mainly in the first half of FY06, which is attributable to a relatively weaker deposit mobilization by these institutions. [26]

***Credit quality improves further***

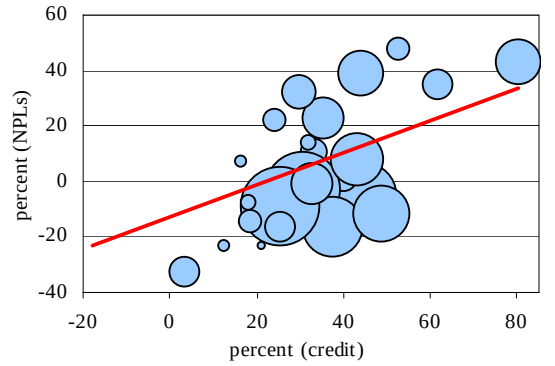
The improvement in the credit quality of banking industry seen in recent years continued into FY06 as well. The net NPLs of the banking industry (from domestic operations) declined to Rs 42.8 billion at end-FY06 compared with Rs 50.2 billion at end-FY05. Thus, the net NPLs to net advances ratio has reached to an all time low at 2.1 percent (see **Figure 5.21**).

**Figure 5.21: Asset Quality of Banks**




However, it should be noted that while the improvement in the said indicator of specialized banks was due to the decline in gross NPLs of these institutions; the improvement in commercial banks' net NPLs to advances ratio is attributed entirely to the increase in provisioning during the year. Specifically, the gross NPLs of commercial banks are seen to increase slightly (by Rs 4 billion) during FY06 compared with a decline of Rs 14.0 billion during FY05. Importantly, this increase is evident despite the slightly higher volume of loan write offs in FY06.[28]

**Figure 5.22: Bankwise NPLs and Credit Growth**




This is a scatter diagram where the bubble size shows size of the bank

The detailed data suggests that there exists a positive correlation between the banks' credit growth and the NPLs growth. As shown in **Figure 5.22**, the banks having registered a higher credit growth during the preceding three years (on average) have also registered a higher NPLs growth during the same period (on average). It should be noted that NPLs of most of the domestic private banks (other than large five banks) have increased during the period (see **Box 5.8**).

This said, the growth in NPLs is still very low. This appears to reflect the gains from improved credit appraisals processes in commercial banks as well as macroeconomic stability, higher earnings of the corporate sector, declining corporate leverage in previous years (see **Box 5.9**), and improved restructuring policies of the banks (which increased the coordination between banks and bank borrowers). In addition, the proactive monitoring through Credit Information Bureau and other credit rating agencies, it has become convenient for banks to evaluate the borrower in terms of their available credit history (see **Box 5.10**).

### 5.2.3 Deposit Mobilization

[26] The lower deposit mobilization in these banks was an outcome of the reluctance to raise deposit rates (see **Section 5.2.3** for details)

[28] The commercial banks wrote off the loans amounting to Rs 7.7 billion during FY06; slightly higher compared with Rs 7.4 billion.

The deposit base of the banking industry registered a growth of 16.3 percent during FY06. While this is considerably lower than the 20.5 percent growth in the preceding year (see **Figure 5.23**), it is nonetheless quite strong, especially seen against the 10-year average of 14.4 percent. The strong deposit growth is high mainly on the back of significant increases in income, robust remittance growth and strong credit expansion.

**Box 5.8: Panel regression for NPLs growth**

The generalized least squares (GLS) estimates of simple panel regression suggest that the preceding five years have shown a negative growth rate in gross NPLs compared with the reference year, FY02 (see **Table B5.4**). However, the smallest coefficient of FY06 indicates that the growth in NPLs has been larger compared with the preceding four years. The coefficient estimates of the ownership dummies suggest that compared with the specialized banks, the NPLs of all the banking groups have registered a negative growth. However, the difference is largest in case of large five banks. Encouragingly, in contrast to their historic performance, these large five banks have shown one of the best performances in managing asset quality. Similarly, the foreign banks have also shown a significantly better performance compared with the specialized banks.

Unfortunately, the performance of the other private sector banks is only marginally better than the specialized banks. Coupled with the fact that it was these institutions that have outperformed other institutions in credit expansion for last 4 years; it is suggested that these banks ensure better credit appraisal practices and a more stringent criterion for loan processing.

**Table B5.4: Panel Regression with Ownership and Time Dummies**

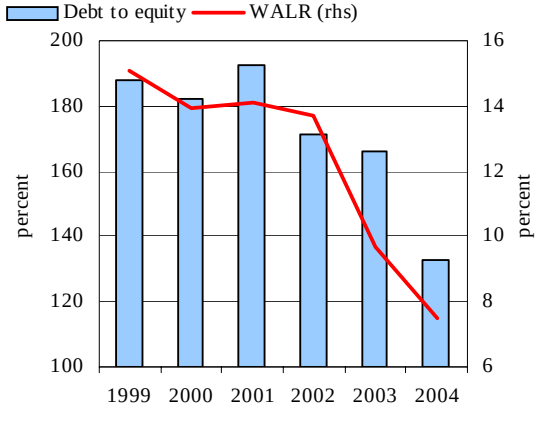
Dependent variable: growth in NPLs

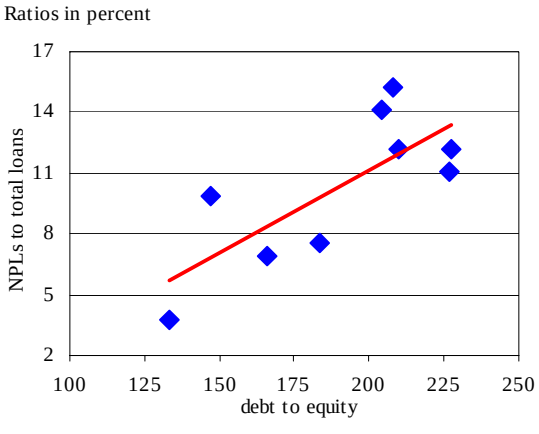
| Variable | Coefficient | t-Statistic |
|---|---|---|
| Constant | 4.63 | 3.51 |
| FY03 | -0.52 | -1.65 |
| FY04 | -0.70 | -1.05 |
| FY05 | -0.45 | -0.49 |
| FY06 | -0.21 | -2.91 |
| Large five banks | -4.86 | -1.75 |
| Other public banks | -4.06 | -3.24 |
| Foreign banks | -4.24 | -1.19 |
| Other private banks | -1.80 | 3.51 |
| Number of observation | 804 | |
| Adjusted R-squared | -0.01 | |

**Box 5.9: Non-performing loans and corporate leverage**

The Financial Sector Assessment Program (FSAP) mission has developed and estimated a model to analyze the relationship between corporate sector Financial Soundness Indicators (FSIs) and banking sector asset quality FSIs. The mission has estimated a model to estimate the relationship for a large number of countries with a panel data set composed of 47 countries and 10 years of annual data. They have found that the banking sector asset quality is dependent on the financial health of corporate sector. Specifically, the non-performing loans to total advances ratio has a positive relationship with the corporate sector leverage (as measured by debt to equity ratio). This is because a declining leverage reflects the lesser vulnerability of the corporate sector to macroeconomic shocks and therefore is theoretically considered to be a good omen for banking system soundness.

**Figure 5.9.1: Corporate Leverage**




A study was also conducted in India to examine the association between corporate leverage and banks' NPLs. Using the data for 1993-2004 on Indian manufacturing sector, the study concluded that the lagged leverage was an important determinant of banks' NPLs. Specifically, a 10 percentage point increase in the corporate leverage is, on average, associated with 1.3

percentage point increase in banks' NPLs relative to loans, after a one period lag. Thus the analysis suggests that the leverage ratio can serve as a useful warning signal of banks' asset quality.
In Pakistan, the relation between banks' NPLs and corporate leverage has yet to be estimated empirically. However, it should be seen that the corporate leverage has been declining for past few years which has been complemented with a fall in weighted average lending rates during the same period. Using the data from 1996-2004, we conducted a preliminary exercise to check the relationship between corporate leverage and banks' NPLs through a scatter plot. As shown in **Figure 5.9.1** there appears to be positive relationship between the corporate sector leverage and banks' asset quality in Pakistan for the said period.
Source: (1) Ghosh, Saibal 'Does leverage influence banks non-performing loans? Evidence from India'; Applied Economics Letters, volume no. 12, issue no. 15, p. 913-918, December 2005.
(2) Financial Soundness Indicators, Background Paper prepared by International Monetary Fund staff of the monetary and financial systems and statistics departments dated May 14, 2003.

**Box 5.10: Credit Information Bureau**

The Credit Information Bureau (CIB) was established in 1992 by the State Bank of Pakistan as a part of the Banking Supervision Department with two major objectives: (1) To fulfill the statutory obligation under 25-A of the Banking Companies Ordinance (BCO) whereby the SBP is required to collect and disseminate credit information to the banking institutions; and (2) To track *connected lending* for supervisory purposes. Only the financial institutions operating in Pakistan are entitled to become member of the CIB and the membership with CIB, as per instructions of SBP and SECP, is mandatory for all financial institutions.

The CIB gets all the positive and negative information from the financial institutions on all fund and non-fund based credit facilities taken by the borrowers. Prior to May 2006, the financial institutions were required to report the credit facilities of Rs 500,000 and above to the CIB. However, effective from May 20, 2006, all the facilities are required to be reported to CIB irrespective of the outstanding amount.

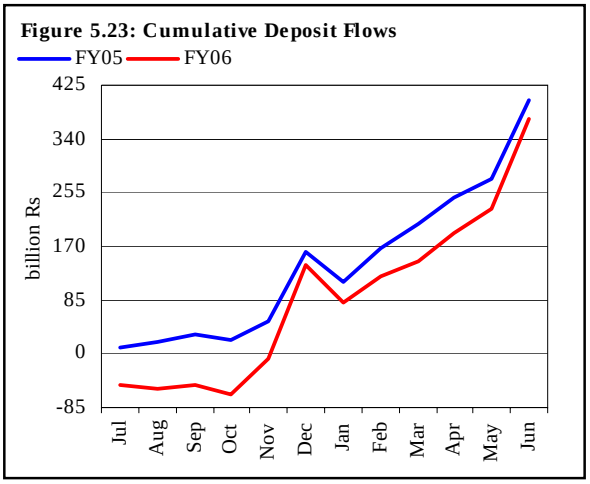
Based on the information provided by the financial institutions, the CIB prepares factual statement of borrowers' credit position, the Credit Worthiness Report (CWR) with an objective to facilitate the financial institutions in assessing the credit risk potential or current borrowers on the basis of credit history. Before extending any financing facility, of Rs 500,000 and above, all the financial institutions are required to obtain the borrowers' CWR. It is important to note that the SBP does not restrict any institution from lending to the borrowers with a negative CWR. Instead, banks are allowed to make lending decisions on the basis of the CWR, and their own lending policies.

The financial institutions provide the borrowers' information on monthly basis through which the CIB updates its database. As such, the CWR only reflects the borrowers' credit worthiness at a certain date which may improve or deteriorate later subject to the repayment settlement between the institution and the borrower. However, in case of consumers, the CWR contains the regular (current) position as well as the history of previous 12 months. This suggests that even if a borrower settles its default; the default would continue to appear in CWR for the next 12 months.

The currency composition of the deposits shows that the slowdown was contributed by both the Rupee deposits and foreign currency deposits (see **Table 5.6**).

While the slowdown in Rupee deposits is mainly reflective of the slowdown in overall monetary growth; the lower mobilization in FCDs during FY06 is an outcome of a shift in exchange rate expectations. In specific terms, through most of FY05 there was a strong growth in FCDs in an expectation of exchange rate appreciation. However, by the end of FY05, these expectations dried up and the depositors' choice of currency had again reverted to the local currency. A similar trend is seen for deposit mobilization during FY06.

**Figure 5.23: Cumulative Deposit Flows**




Disaggregating by type of banks, it is seen

that most of the slowdown was registered by smaller domestic private banks. This slowdown appears mainly to reflect the relatively lower inflow of workers' remittances in these banks during FY06 compared with the preceding year (see **Figure 5.24**) as well as the relatively lower credit growth by these institutions. The lower credit growth, in turn was an outcome of the liquidity shortages in these banks stemming from lower deposit mobilization.

**Table 5.6: Total Deposits**

billion Rupees

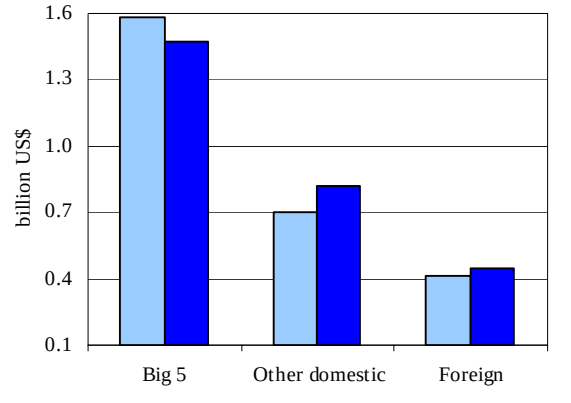
| | Rupee deposits | | FCAs | | Total deposits | |
|---|---|---|---|---|---|---|
| | **FY05** | **FY06** | **FY05** | **FY06** | **FY05** | **FY06** |
| Large five banks | 131.4 | 137.5 | 15.4 | 4.3 | 146.8 | 141.8 |
| Other domestic | 204.7 | 186.0 | 21.3 | 11.5 | 226.0 | 197.5 |
| Foreign banks | 29.2 | 31.9 | 1.0 | 3.1 | 30.1 | 35.0 |
| Specialized banks | -1.4 | -2.4 | 0.0 | 0.0 | -1.4 | -2.4 |
| Total | **363.9** | **353.0** | **37.7** | **18.9** | **401.6** | **371.9** |

The deposits include government deposits as well, and thus will not reconcile with the deposits that appear on monetary survey.

Thus in order to increase the deposit base, the smaller domestic private banks have increased deposit rates sharply by 214 basis points on average compared with just 60 basis points increase in the preceding year. Interestingly, however, the large five banks and the foreign banks raised their deposit rates more aggressively (see **Box 5.11**).

Indeed, the continuous rise in deposit rates would not only help the banks in maintaining sufficient liquidity to continue lending operations; but would also aid in narrowing the banking spread (difference between lending and deposit rates) that had showed an increasing trend through most of FY06. This dispersion between the lending and deposit rates, among other factors, is an outcome of the inherent rigidities in the deposit rates (at least in short term, compared with the lending rates) arising out of slow responsiveness of depositors against the deposit rate movements and comparative levels.[29]

**Figure 5.24: Bank-wise Remittances**




**Box 5.11: Pace of Increase in Deposit Rates**

To estimate the difference between the pace of increase in deposit rates among banking groups, we have used the panel data of the changes in deposit rates for the period July 2003 to June 2006. However, to assess the asymmetry between the magnitudes of changes in the deposit rates when interest rates rise and fall; we have disaggregated the data in three periods, FY04, FY05 and FY06 (see **Table B5.3**).

**Table B5.5: Panel Regression with Ownership Dummies**

Dependent variable: changes in deposit rates

| | Coefficients | | | |
|---|---|---|---|---|
| | **FY04** | **FY05** | **FY06** | **FY04-06** |
| Constant | -0.002 | 0.099 | 0.016 | 0.060 |
| Large five banks | -0.012 | -0.048 | 0.047 | -0.005 |
| Foreign banks | 0.024 | 0.076 | 0.006 | 0.030 |

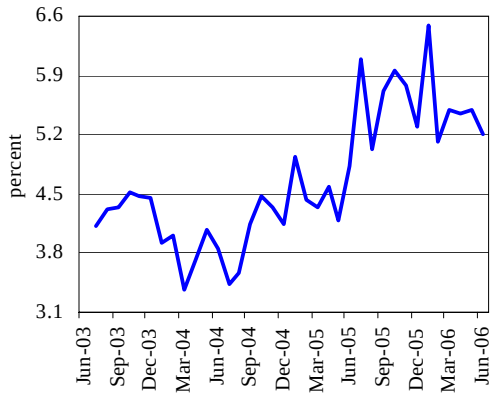
The reference group is other domestic banks

The Generalized least square estimates suggest that during FY04, when the interest rates were falling; the changes in deposit rates in smaller domestic banks were on average 0.012 percentage points larger than the changes in large five banks. During FY05, however, the large five banks did not raise deposit rates as sharply as the other domestic banks. This was quite understandable since the deposit base of large five banks is too large to create significant pressures for maneuvering interest rates; thus on average the deposit rates of this group increased by just 25 basis points. Later, during FY06, with mounting liquidity pressures across the banking sector (as also exhibited by the converging liquidity ratio of different banking groups), the deposit rates of the overall banking industry increased sharply. All the banking groups registered over 200 basis points increase. However, the increases in deposit rates of foreign banks and large five banks were larger compared with those of other domestic banks as reflected by positive coefficients of these groups.

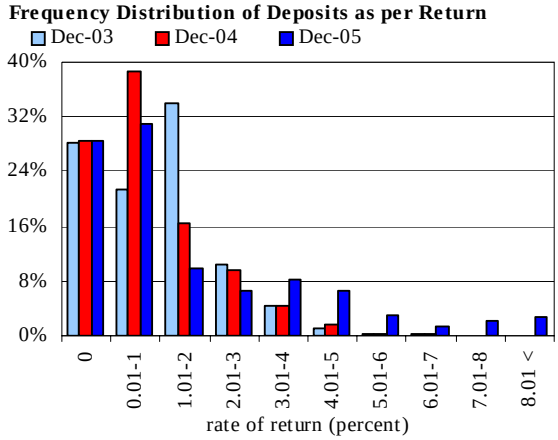
[29] For details, please see ***Special Section 3 "Interest rates and banking spread"*** in ***SBP 2nd Quarterly Report*** for ***FY06***.

However, with new reserve requirements in place, there will be an increase in deposit rates across the banking industry in months to come. Specifically, the new reserve requirements have encouraged banks to mobilize longer tenure deposits by applying a lower CRR on time deposits. Therefore, it is expected that banks would make special efforts to mobilize higher return long term deposits to minimize non-remunerative placements under CRR.

**Figure 5.25: Banking Spread**

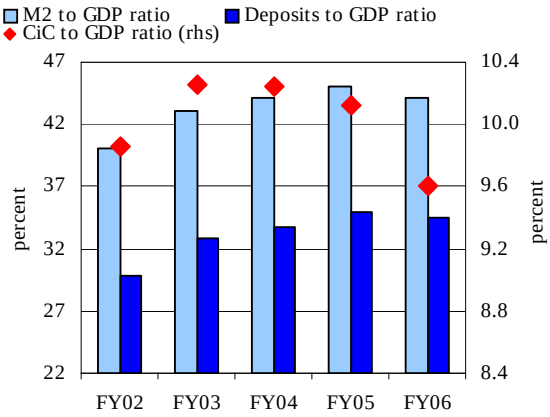



**Frequency Distribution of Deposits as per Return**




Further, to remove the rigidities in deposit rate movements and also to promote competition by facilitating the customers in making informed decisions; the SBP has directed all the banks to display the offered deposit rates on different tenures prominently on their websites as well as in their branches.[30] Moreover, the SBP has directed all banks to also inform their customers the intricacies of ATM charges. These measures are expected to strengthen the competition among banks. As shown in **Figure 5.25**, the banks have already started offering higher returns to their depositors.

**Figure 5.26: Monetary Depth**




***Monetary Indicators***

The performance of the monetary sector during FY06 can be further gauged through analyzing trends in various monetary indicators;

*Monetary Depth*

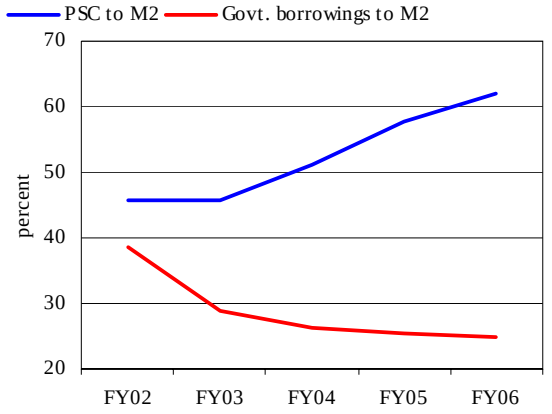
For the first time in the preceding six years, the *M2-to-GDP* ratio declined slightly during FY06 (see **Figure 5.26**). This was attributed to a slower growth in M2 compared with nominal GDP during the year first time since FY01. Indeed, this was a policy objective of SBP against the incessant inflationary pressures arising out of the overheating economy. The composition of the indicator shows that both the deposits to GDP ratio and the currency in circulation to GDP ratio has registered slight decline during the year.

*Financial Efficiency*

[30] see BPD Circular No. 06 of 2006 dated July 14, 2006

Though the *M2-to-GDP* ratio reflects the monetary deepening in the economy; however in terms of efficiency the ratio could be misleading. Specifically, a higher deepening can be achieved simply by monetizing the fiscal gaps which may not necessarily be spurring economic activities. Therefore it is imperative to decompose the asset side of the money supply. As shown in the **Figure 5.27**, during the preceding five years, private sector credit to M2 has increased tremendously while the government borrowing to M2 ratio has declined. This trend continued through FY06. The increasing credit to M2 ratio coupled with a further improvement in credit quality suggests that banking sector allocative efficiency has increased in recent years.

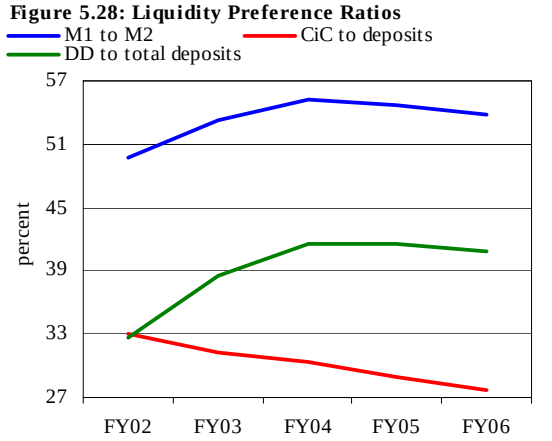
**Figure 5.27: Financial Efficiency Ratios**




*Liquidity Preference*

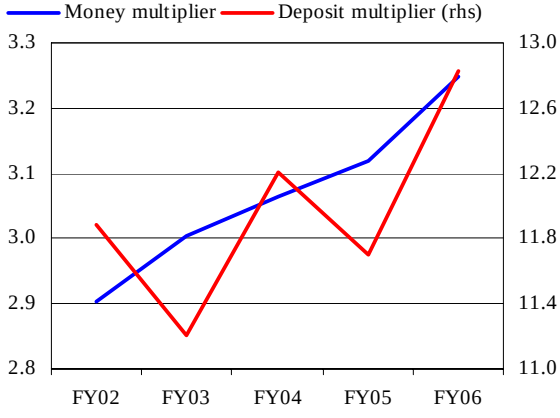
Despite the rising inflationary concerns, the liquidity preference indicators during FY06 exhibited further improvement as both the M1 to M2 ratio and the currency to deposit ratio registered slight declines (see **Figure 5.28**). This improvement is basically reflective of (1) the confidence of the general public over the financial health of the banking institutions; and (2) a gradual shift from cash oriented economic transactions towards the usage of plastic money.

**Figure 5.28: Liquidity Preference Ratios**




Intriguingly, in the previous four years when the deposit rates were at historic low; the currency to deposit ratio continued to decline reflecting perhaps the low inflation environment and a low interest elasticity of domestic bank deposits. However, it will be interesting to see how the liquidity preference behavior of the economy shifts if inflationary pressures persist for long.

**Figure 5.29: Pace of Money Creation**




*Pace of Money Creation*

The continuous decline in the *currency to deposit* ratio has also helped in increasing the pace of money creation in the economy. In specific terms, the money multiplier as defined by ratio of money supply to reserve money has further increased during FY06 mainly on the back of a sharp slowdown in reserve money growth (see **Figure 5.29**).

The deposit multiplier as measured by bank deposits to bank reserves ratio (which shows that against the banks' reserves, to what extent could banks multiply their checkable deposits) has also increased

sharply during FY06 after having declined during FY05. Ironically, although the deposit multiplier was higher during FY06 compared with FY05; the deposit growth was higher in the latter period. This is again attributed to a decline in the public's desire to hold their monetary assets in currency form which increases the multiplicability of banks' reserves into deposits and also the higher credit to deposit ratio during the year.

*Level of Dollarization*

The level of dollarization in the economy is basically reflective of the public's confidence in the local currency. However, there are contrasting implications of asset side and the liability side dollarization. In specific terms, the liability dollarization is reflective of expectations of a decline in the value of domestic currency, i.e., larger the expectations of exchange rate appreciation, higher the liability dollarization and vice versa. Contrary to this, asset side dollarization is reflective of expectations of stability in the exchange rate. As shown in the **Figure 5.30**, the liability dollarization, as measured by ratio of foreign currency deposits to total bank deposits, has declined during FY06 after having increased in the preceding year. Indeed, this is an outcome of expectations of exchange rate stability.

*Credit to Deposit Ratio*

The credit to deposit ratio is a crude measure of liquidity comfort with the banks simply because the ratio shows the extent to which commercial banks have extended loans against certain level of deposits. Total credit to deposit ratio[31] has further increased and has reached to 86.6 percent at end FY06 (see **Figure 5.31**). Interestingly, however, the spread between the credit to deposit ratio and the advances to deposit ratio has widened during FY06 after the gap of three years. This was mainly due to an increase in the investment component in total credit during the year.

**Figure 5.30: Dollarization in the Economy**

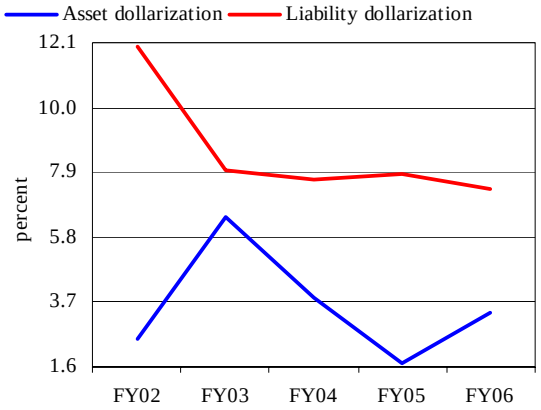



**Figure 5.31: Credit to Deposit Ratio**

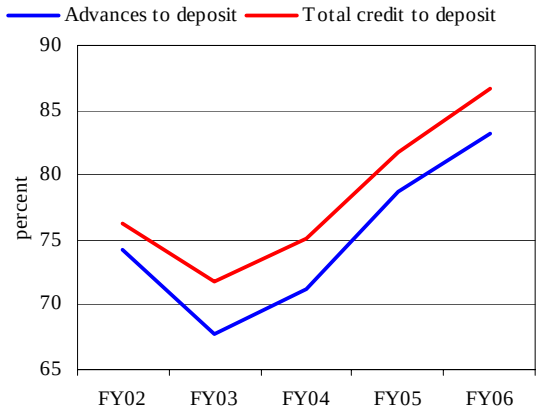
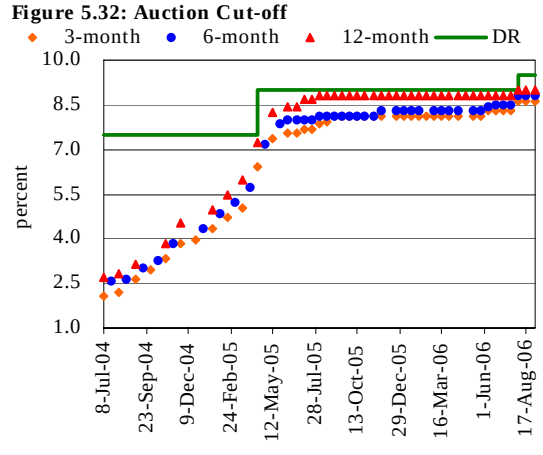



**Figure 5.32: Auction Cut-off**




**5.3 Money Market**

[31] The credit includes advances, bills and investment in private sector (including shares, TFCs, etc).

As discussed earlier, the focus of the SBP's tight monetary policy during FY06 was essentially on improving the transmission of policy signals, by draining excess liquidity from the inter-bank market and driving the overnight call rates very close to the discount rate.

### 5.3.1 Primary Market

***Treasury Bills Auction***

The interest rate in the primary market of the T-bills auctions remained more or less unchanged during FY06 (see **Figure 5.32**). The SBP's reluctance to sharply raise the auction cut off rates during FY06 is also reflected in low net acceptance in T-bill auctions during FY06 (see **Table 5.7**).[33]

**Table 5.7: Highlights of T-Bill Auctions**

million Rupees

| | FY05 | FY06 |
|---|---|---|
| Target | 1,016 | 748 |
| Maturity | 936 | 736 |
| Net target | 80 | 12 |
| Net offer | 682 | 390 |
| Net acceptance | 114 | 3 |
| *Change in cut-off rates (percentage points)* | | |
| 3-month | 5.77 | 0.81 |
| 6-month | 5.76 | 0.50 |
| 12-month | 6.20 | 0.34 |

**Pakistan Investment Bonds (PIBs)**

The government announced and successfully conducted a PIB auction on May 19 2006 (see **Table 5.8**). The aggregate target set for the auction was Rs 10 billion while the Rs 10.16 billion accepted in different tenure.

**Table 5.8: PIB Auction (3, 5 & 10 Years Maturity)**

Auction held on May 19, 2006

| | | 3-yr | 5-yr | 10-yr | Total |
|---|---|---|---|---|---|
| Target | billion Rupees | - | - | - | 10.0 |
| Offered | billion Rupees | 3.9 | 6.5 | 5.6 | 16.0 |
| Accepted | billion Rupees | 2.8 | 4.1 | 3.2 | 10.2 |
| Cut-off (price) | Rupees | 99.1 | 98.6 | 98.3 | - |
| Coupon | percent | 9.1 | 9.3 | 9.6 | - |
| Cut-off (yield) | percent | 9.4 | 9.6 | 9.8 | - |
| **Last successful auction (May 29, 2004)** | | | | | |
| | | **3-yr** | **5-yr** | **10-yr** | **Total** |
| Target | billion Rupees | 10.0 | 3.0 | 2.0 | 15.0 |
| Offered | billion Rupees | 3.0 | 4.3 | 10.4 | 17.7 |
| Accepted | billion Rupees | 1.9 | 3.0 | 10.0 | 14.9 |
| Cut-off (price) | Rupees | 104.5 | 107.1 | 104.4 | - |
| Coupon | percent | 6.0 | 7.0 | 8.0 | - |
| Cut-off (yield) | percent | 4.4 | 5.3 | 7.4 | - |

Due to insufficient supply of PIBs in the market during the last two years, [34] their outstanding stock has declined from Rs 334.2 billion at end June FY04 to Rs 303.8 billion by end June FY06. Of that, Rs 151.4 worth of PIBs stock is being held by banks, mainly under 'held till maturity' and 'available for sale' categories.

### 5.3.2 Secondary Market

***Open Market Operations (OMOs)***

SBP brought about important modification in conduction of OMO during FY06.

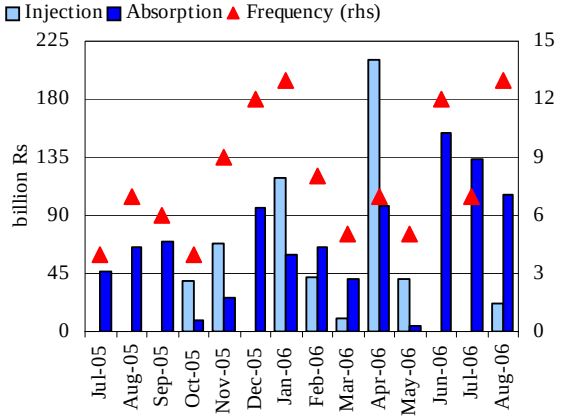
Firstly, the OMOs had a maturity in terms of number of days whereas OMOs conducted earlier had maturity in terms of number of weeks.[35] This reduction in maturity provided SBP greater flexibility in mopping up the excess liquidity from the interbank market.

Secondly, SBP was more proactive as OMOs were used both for absorbing as well as injecting liquidity from the interbank market (see **Figure 5.33**).

[33] Adjusting for the maturity, the absorption was just Rs 2.6 billion against the market offer of Rs 390 billion.
[34] Of the four PIB auctions announced for FY05, government conducted only three auctions, all of which were scrapped.
[35] The detail discussion on change in maturity profile of OMO is given in the forthcoming FSA 2004-05.

Thirdly, more recently, SBP has started conducting more than one OMO at a time with different maturity period thereby increasing the short term investment opportunity for the market. These modification helped SBP in keeping the secondary market dry of the liquidity, thereby pushing the KIBOR upward and improving the transmission of its policy rates to lending rates.

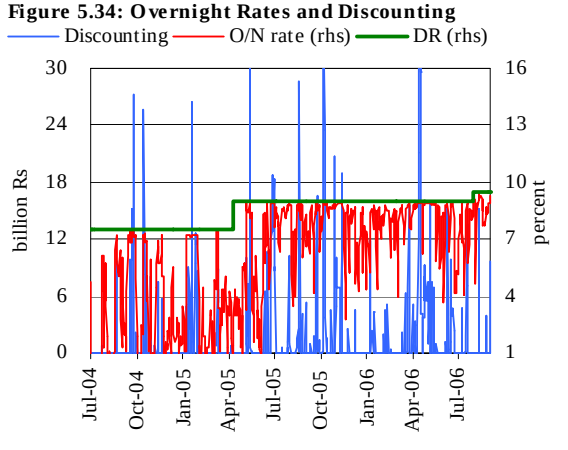
**Figure 5.33: Open Market Operations**




***Overnight Rates***

As a result of SBP's more aggressive liquidity management, the overnight rate stabilized near the discount rate. The average overnight rate for FY06 was 7.9 percent with a coefficient of variation of 14.4 percent, while in FY05 the average of overnight rate was 3.8 percent with a coefficient of variation at 65 percent. The better liquidity management by SBP is also evident from the average amount discounted per visit by the banks (see **Figure 5.34**). In FY06, banks on average discounted Rs 5.9 billion per visit, while in FY05 this amount was Rs 6.5 billion.

**Figure 5.34: Overnight Rates and Discounting**




***KIBOR***

As discussed in the previous section, SBP's effective liquidity management through OMO translated in KIBOR, a benchmark used for the corporate lending. The difference between the 6-m repo rates (inter-bank borrowing rates) and the 6-m KIBOR has increased significantly since the beginning of FY04 (see **Figure 5.35**).

Going forward, the current scarcity premium is expected to sustain in the wake of recent tightening initiative taken by the SBP. The recent upward revision of the reserve requirement under CRR and SLR has helped SBP to drain almost Rs127 billion of liquidity from the banking system.[37,38] On the other hand, the upward revision of the SBP 3-day Repo rate from 9.0 percent to 9.5 percent has further consolidated the tight condition of the secondary market.

***Trading Activity***

One of the important regulatory step taken by the SBP in FY06, relating the activity of the secondary market was restriction on banks from using PIBs placed in their Held till maturity (HTM) category for all type of Repo purposes. Previously, banks were using the PIBs placed in HTM as collateral in inter-bank borrowing purposes, thereby hindering the SBP's effort to keep the secondary market dry.

[37] For detail discussion of impact of revision of CRR and SLR, see *MPS Jul-Dec 2006*.
[38] The difference between the KIBOR and the repo rates indicates a default risk premium due to tighter monetary condition. Hence this difference could be taken as a proxy of the liquidity scarcity premium.

The restriction has strengthened the decline in the share of PIBs in the secondary market trading activity (see **Figure 5.36**).[39] Despite a decline in the PIB share, the secondary market trading volume continued to grow largely due to the increased activity in the 12-m paper. In FY06, average monthly trading volume was Rs 45 billion while in FY05 the same was Rs 40 billion. This indicates that the secondary market depth has increased over time.

**Figure 5.35: Repo-KIBOR Differential**

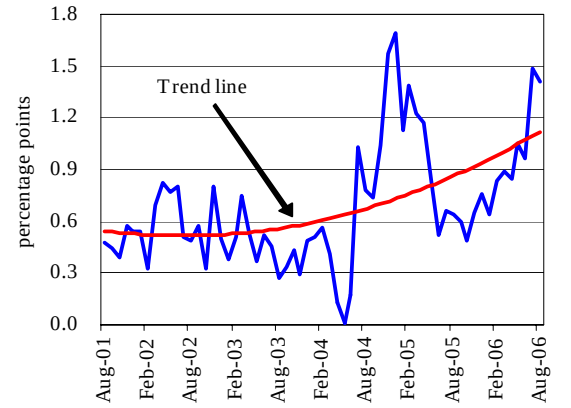
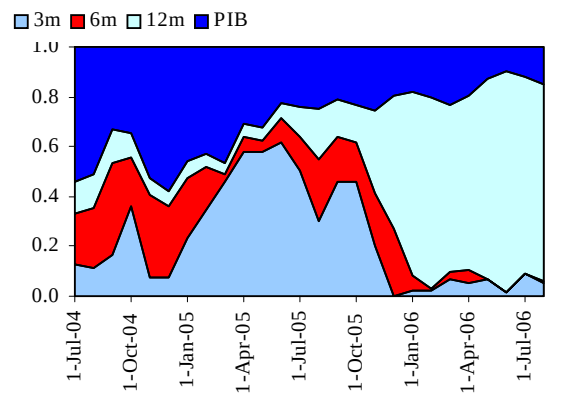



**Figure 5.36: Secondary Market Trading**

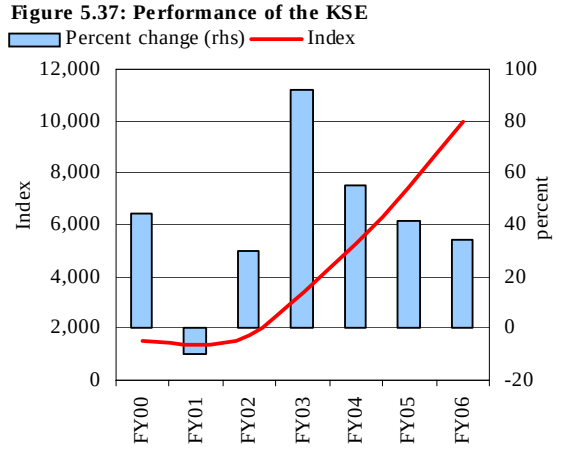



## 5.4 Capital Market

The Karachi Stock Exchange (KSE) has performed remarkably well during most of the FY06. The index registered a gain of 65 percent till April 13, 2006 over end-June 2005 level, but over the next two and half months the market showed the massive correction which led the index to fall sharply. Despite this correction however, the index recorded a YoY growth of 34.1 percent during FY06 (see **Figure 5.37**).

The robust rise of KSE-100 index up to April, 2006 was mainly due to favorable market fundamentals, including (1) expected corporate earnings as reflected in corporate results 2005,[40] particularly in banking, oil & gas exploration, marketing and power generation sectors; (2) settlement of privatization transaction for PTCL and KESC and expectations of privatization of other profitable listed public sector corporations; (3) high international oil prices and gas discoveries (that pushed up prices of energy stocks); (4) investor confidence on economic management specifically foreign investors; and (5) the relatively low yields on financial assets and available market liquidity.

**Figure 5.37: Performance of the KSE**




After touching its peak, the KSE-100 index however experienced a massive correction in April 2006 mainly due to following:

- Overbought position by big investors and as a consequence of foreign and institutional traders profit-selling in oil and bank shares;
- Petition against Pakistan Steel Mill privatization;

[39] The PIB share in the secondary market trading activity was declining due to low supply.
[40] The annual corporate performance measured by the available earnings of 441 companies listed at the KSE showed a remarkable growth of 39.4 percent in 2005 over the preceding year (The two sets of sample is almost the same for the two years).

- Delays in the expected privatization of PPL PSO SSGC and SNGC;
- Pre-budget expectation of capital gain tax on trade;

The negative sentiments strengthened further during May following the rumors of an increase in withholding and value-added tax in the upcoming FY07 budget. The downtrend in KSE-100 index continued in June 2006 as well following the increase in Capital Value Tax (CVT) on stock purchases from 0.01 to 0.02 percent; and proposed imposition of withholding tax on stock market transactions.

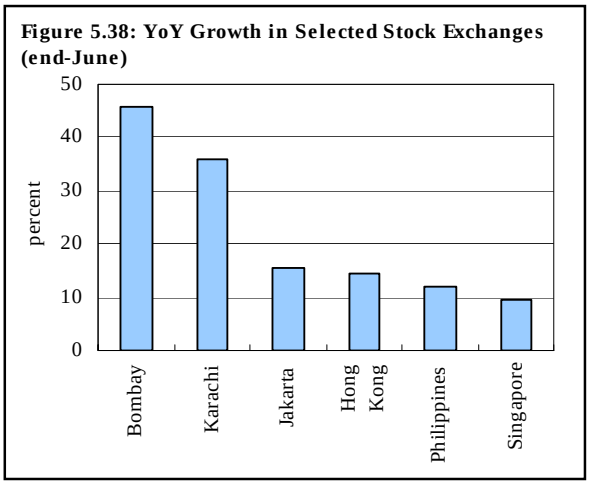
Despite this correction, the market capitalization has shown a rise of Rs 2,801 billion during FY06 – an increase of 34.4 percent over the year (see **Table 5.9**). A comparison of Karachi Stock market with emerging markets of the region suggests that KSE-100 has been attractive for both foreign and local investors over the period (see **Figure 5.38**). However, it is disappointing to note that the market saw very few new equity listings in FY06 that is only 4 compared with 18 during FY05. Further, the number of listed companies at KSE almost remained the same but in fact the increase in total listed capital suggests that healthier companies in terms of market capitalization have replaced the weaker ones. The capital raised through right and bonus shares upto June 30, 2006 (six months) amounts to Rs 13.8 billion compared to Rs 27.6 billion during 2005 (12 months) indicates that the base of market shares through these issues has been increasing.

**Table 5.9: Overview of Capital Market**

| **Equities (KSE)** | | **FY03** | **FY04** | **FY05** | **FY06** |
|---|---|---|---|---|---|
| Listed companies | numbers | 701 | 666 | 659 | 658 |
| Listed capital | billion Rs. | 313 | 377 | 439 | 496 |
| Market capitalization | billion Rs. | 755.77 | 1,422 | 2,068 | 2,801 |
| Market capitalization as % of GDP | percent | 19.7 | 25.2 | 31.4 | 36.3 |
| New listed companies | numbers | 6 | 14 | 18 | 4 |
| New listed capital | billion Rs. | 4.6 | 55.6 | 32.3 | 7.8 |
| **Debt instruments (all listed)** | | | | | |
| New debt instruments listed | numbers | 15 | 6 | 12 | 7 |
| Amount | billion Rs. | 10.7 | 3.32 | 15.6 | 7.0 |
| **KSE-100 index** | | | | | |
| High | | 4606.0 | 5620.7 | 10303.1 | 12273.8 |
| Low | | 2356.5 | 3430.8 | 4890.2 | 6970.6 |
| **Turnover (KSE)** | | | | | |
| Average volume per day (shares) | billion | 0.31 | 0.39 | 0.35 | 0.32 |
| Total value | billion Rs. | 3841.00 | 4862.00 | 7167.58 | 8707.46 |
| Turnover ratio | | 4.0 | 3.42 | 3.47 | 3.11 |
| **Lahore stock exchange** | | | | | |
| LSE-25 index | | 2034.6 | 2828.3 | 3762.3 | 4379.3 |
| LSE market capitalization | billion Rs. | 751.2 | 1406.2 | 1995.3 | 2693.3 |
| Market capitalization as % of GDP | | 15.6 | 24.9 | 30.3 | 34.9 |
| **Islamabad stock exchange** | | | | | |
| ISE-25 index | | 8210.1 | 11894.3 | 11571.4 | 11528.2 |
| ISE market capitalization | billion Rs. | 541.3 | 1106.2 | 997.6 | 2101.6 |
| Market capitalization as % of GDP | | 11.2 | 19.6 | 15.2 | 27.2 |

Source; Stock exchanges

### 5.4.1 Mutual Funds




During FY06 (upto March 31, 2006) growth in mutual funds industry has been substantial. Net Assets under management by mutual funds grown by 39.2 percent and number of fund has increased by 9 compare with June 2005. Among the Total Net Asset Value (NAV) of the mutual funds, UTP Income, Atlas Stock Market Fund, Meezan Islamic and United Money Market Fund have demonstrated strong growth ranging from 99 percent to 53 percent during the period under review. Mutual fund assets have grown faster in the last three years and the industry is set to grow further, due to booming stock market and rising demand for funds among retail investors. The industry's combined net asset value stands at Rs 173.7 billion as on March 31, 2006 from Rs112.2 billion in June 2004 (see **Figure 5.39**). The over all growth in these funds suggests that the investors confidence is increasing in these lesser risky instruments due to better performance of the market and improved monitoring by the regulator and secondly the returns on these funds has also been substantial.

**Table 5.10: Floatations in FY05 & FY06**

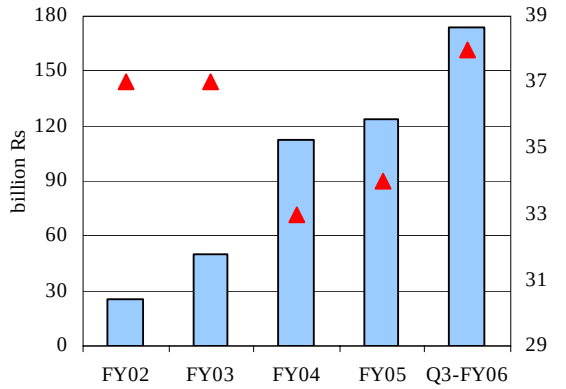
million Rupees

| Company | Issue date | Coupon rate | Tenor | Amount |
|---|---|---|---|---|
| **FY05** | | | | |
| Bank Al-Habib | 15-Jul-04 | 6-Month KIBOR+1.5% Floor 3.50%, Cap 10.00% | 8 | 1350 |
| Trust Leasing | 16-17 July-04 | 6-Month KIBOR+3% Floor 6.00%, Cap 10.00% | 5 | 375 |
| United Bank Limited | 9-10 August 04 | 8.50% | 8 | 2000 |
| Bank AlFalah | 22-23 Nov 2004 | 6 month KIBOR + 1.5 % | 8 | 1250 |
| Jahnagir Siddiqui II | 20-21 Dec 2004 | 8.29% | 5 | 500 |
| Askari Commercial bank | 3-4 Feb 2005 | 6 month KIBOR + 1.5 % | 8 | 1,500 |
| Prime Commerical Bank | 9-10 Feb 2005 | 6 month KIBOR + 1.9 % | 8 | 800 |
| Chanda Oil and Gas | 15-16 Feb 2005 | 3 month KIBOR + 3.25% Floor 8.95 % Cap 13.0% | 7 | 1,000 |
| United Bank Limited II | 14-15 Mar 2005 | 9.49% | 8 | 2,000 |
| Naimat Basal Oil and Gas Securitisaion | 11-12 April 2005 | 6 month KIBOR + 2.5 % Cap 13.0%, Floor 7.50 % | 5 | 1,200 |
| Soneri Bank Limited | 4-5 May2005 | 6 month KIBOR + 1.6 % | 8 | 1,200 |
| TeleCard | 26 -27 May 2005 | 6 month KIBOR + 3.75.5 % | 6 | 2,400 |
| | | | | **15,575** |
| **FY06** | | | | |
| Azdard-9 | 19-20 Sep 2005 | 6-Month KIBOR+2.40%, No Floor & Cap | 7 | 2,000 |
| Jahangir Siddiqui & Co. Ltd | 29-30 Sep 2005 | 6-Month KIBOR+1.75%, 6% Floor 16% Cap | 5 | 500 |
| Askari Commercial Bank | 31-Oct-05 | 6-Month KIBOR+1.5%, No Floor & Cap | 8 | 1,500 |
| Trust Leasing | 14-15-Nov-2005 | 6-Month KIBOR+2.0%, No Floor & Cap | 5 | 375 |
| Bank Alfalah 2 | 24-25-Nov-05 | 6-Month KIBOR+1.5% No Floor, Cap | 8 | 1,200 |
| Union Bank Limited III | 1-Feb-06 | 6-Month KIBOR+2% No Floor, Cap | 7 | 1,000 |
| Searle Pakistan Limited | 7-9-Mar-06 | 6-Month KIBOR+2.5% No Floor, Cap | 5 | 400 |
| | | | | **6,975** |

### 5.4.2 Corporate Debt Market

The growth of the corporate debt market in Pakistan remained weak during FY06 both in terms of the number of TFCs issued and issue size. The listings of new debt instruments were 7 worth approximately Rs 7.0 billion compared to 12 issues with Rs 15.6 billion during FY05. Out of 7 new issues during FY06, 3 were by commercial banks (see **Table 5.10**).

**Figure 5.39: NAV of Mutual Funds**




Given the rising interest rate environment and the need to hedge against interest rate volatility, new issues of TFCs are now anchored to floating rate instruments. But instead of pegging corporate instruments to any long term benchmark (i.e., PIBs), all the floating rate issues in FY05 and FY06 were anchored to the short-term KIBOR rates (see **Table 5.10**). In fact, the lack of fresh PIB issues that not only made the secondary market relatively illiquid, but also made the longer end of the yield curve unrepresentative. Thus, PIB rates are no more used as benchmark rates. However, given the expectation of continuing volatility in rates many issues also incorporated embedded options to protect both issuers and investors.

The size of the corporate debt market is still very small however; the prospects for the growth had improved due to number of recent developments. On the supply side, rising interest rates have led corporate to lock-in funding costs, even as the demand profile is improving due to: (1) the increasing number of mutual funds; (2) rising maturity of institutional NSS investments; (3) the increasing role of professional fund managers in pension & provident funds, trusts, etc. While the primary market of TFCs has made some progress and has potential to grow, the recent decision to allow institutional investment in NSS scheme is a setback to the prospects of the corporate debt market. While yields on NSS long-term instruments appear similar to returns on PIBs, the comparison is not appropriate, as the NSS investment incorporates an implicit put option that makes the yield on similar tenor PIBs significantly less attractive. Similarly, issuers of long-term corporate bonds would have to offer significantly high yields to compete with NSS instruments.

**Special Section 5.1: Reserve Requirements for Commercial Banks**
The objective of this section is to estimate and analyze the importance of reserve requirements in the conduct of monetary policy.

***The function of reserve requirements***
The reserve requirements perform three main functions for the central banks: (1) changes in reserve requirements can be used to signal changes in monetary policy; (2) reserve requirements can help the Central Bank in maintaining stability in overnight rates when the liquidity conditions are changing; (3) since the reserve requirements reflect the demand for Central Bank balances, the impact of any sharp swing in the supply of liquidity in the inter bank market can be offset through changes in these requirements.

***Changes in reserve requirements in Pakistan***
During July 2006, the SBP has raised the Statutory Liquidity Requirements (SLR) from 15 to 18 percent of the total time and demand liabilities effective 22nd July 2006. Further the SBP has also introduced for the first time separate Cash Reserve Requirements (CRR) on demand and time liabilities. Specifically, the SBP has set CRR of 7 percent (weekly average) on total demand liabilities and 3 percent of total time liabilities. Moreover, the SBP has also revised the definition of time and demand liabilities to be used for calculating these requirements. Certainly, the decision was in line with the continued tight monetary posture and was expected to drain excess liquidity from the money market.

The revision in requirements could be analyzed in two respects; (1) the implication of change in definition of TDL; and (2) the impact of increase in requirements on the liquidity ratio of banks.

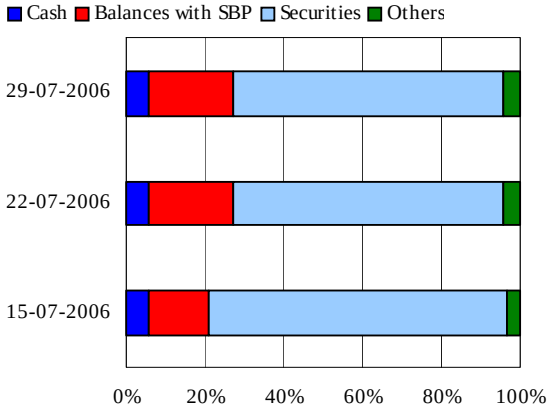
Before analyzing the implication of definitional change in TDL, it will be interesting to have a look on country practices especially in the emerging market economies. As shown in **Table S1**, there are different definitions being used for the purpose of calculating reserve requirements. In India, for instance, the reserve requirements are being calculated after netting off the inter bank credit from the total TDL. However, in Indonesia, Korea, Malaysia, Singapore, Brazil, Chile and Peru only the deposit liabilities are considered for reserve requirements. In Malaysia, the definition also includes inter bank borrowings. Although, these requirements are usually applied uniformly to all kinds of deposits; but in certain cases differential ratios are also applied; for instance, in Chile, the reserve ratio is 9 percent for demand deposits while for time deposits the requirement is only 3.6 percent. Similarly, in Brazil, the required ratios in terms of demand, time and savings deposits are set at 75 percent, 20 percent and 15 percent, respectively. These differential ratios are applied to induce banks to mobilize the deposits of longer tenures. In some countries, the marginal requirements are also used that are applied on the increase in certain balance sheet items (and not the level). Certainly, the rate and the period of these requirements depend upon the nature of such items and the resultant liquidity conditions.

In Pakistan, the demand liabilities constitute 88 percent of the total net TDL of the banking system. As such, it was expected that the increased CRR requirements on demand liabilities would result in the substantial draining of liquidity from the inter bank market. This was because banks usually keep excess liquidity with SBP well *above* the required level in order to keep a cushion against any sharp increase in the TDL through the remaining days of the week. On this basis, it was estimated that banks would keep a similar spread between the required and actual liquidity requirement, therefore it was anticipated that inter bank liquidity may fall by up to Rs 40-45 billion.

However, as an immediate response, the banks took the advantage of their excessive holding of government securities for SLR by converting securities into cash balances with the SBP.

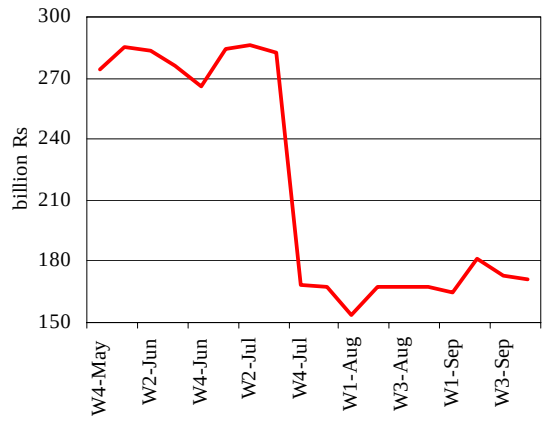
In specific terms, at end of the week prior to the changes in reserve requirements ending on July 15, 2006, the banks investments in securities for SLR purpose was 23.2 percent of total TDL; over 8 percentage points higher than the required SLR. However, the banks' reserves in the form of cash or other deposits for CRR purpose was 7 percent of total TDL; only 2 percentage points higher than the required CRR of 5 percent during that period (see **Figure SS.5.1**)[41].

**Figure SS.5.1: Composition of Liquidity Maintained**



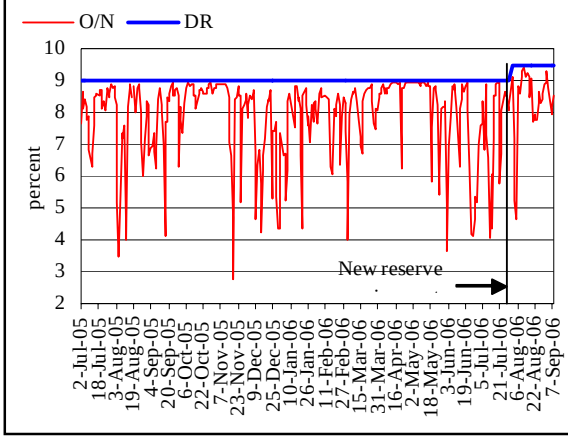

During the next week ending on July 22, 2006, when the new requirements were in place, the commercial banks' cash balances with the SBP increased by Rs 51.3 billion while banks' holding of securities registered a decline of Rs 49.4 billion. As a result, while the liquidity ratio remained more or less unchanged; the share of securities in total liquidity maintained declined from 75.7 percent at end week July 15, 2006 to 68.6 percent at end week July 22, 2006.

**Figure SS.5.2: Trend in Excess Reserves**




However, the actual impact of this measure can be seen from declining difference between the required and actual liquidity (see **Figure SS.5.2**). Specifically, at end week Jul y 15, 2006 the liquidity maintained by commercial banks was Rs 282.6 billion higher than the required liquidity. Later, it reached at Rs 168.2 billion at end week July 22, 2006; depicting a decline of Rs 114 billion during a week. As a result, the overnight rates remained very close to the discount rate and the spread between these two was squeezed by only 0.1 percent during the week.

**Figure SS.5.3: Overnight Rates and Discount Rate**




Effective from July 30, 2006, the SBP has also increased the discount rate by 50 basis points to 9.5 percent to allow overnight rates to move up. As shown in the **Figure SS.5.3**, despite the increase in discount rate, the spread between overnight rates and the discount rate remained narrow. This was because, the SBP complemented the increase in discount rate with more frequent conduct of OMOs. In specific terms, during July and August, the SBP conducted 20 OMOs, in 18 of which it absorbed liquidity.

[41] The bias of banks towards holding securities is quite clear. The reserves in form of cash or other deposits are non-remunerated; while those in the form of securities earn them a market yield.

**Table S1: Overview of Reserve requirement systems**

| | India | Indonesia | Korea | Malaysia | Singapore |
|---|---|---|---|---|---|
| Definition | Total demand and time liabilities (net of inter bank credit) | Demand, time and savings deposits | Deposit liabilities except for cover bills and financial debentures | Deposits and interbank borrowing | Deposit liabilities |
| Eligible assets | Cash balances with RBI | Deposits in central bank | Deposits in BOK; up to 35% of reserves may be held as vault cash | Deposits in central bank | Deposits in central bank |
| Marginal requirements | Imposed from time to time depending on liquidity condition | No | In case of excessive credit expansion, up to 100% | | No |
| Averaging | Yes | Yes, subject to daily minimum | Yes | Yes, subject to daily maximum and minimum | No |
| Maintenance period (end-day) | 14 days | 1 week | Half-month, 22nd & 7th (next month) | 2 weeks 15th & 30th | 2 weeks Wednesday |
| Remuneration | Yes(4% p.a) excluding the statutory minimum of 3% | No | None | No | No |
| Penalties | Yes | Yes | Yes | Yes | Yes |

**…continued: Overview of Reserve requirement systems**

| Thailand | Brazil | Chile | México | Peru |
|---|---|---|---|---|
| Total liabilities | Demand, time and saving deposits | Demand and time deposits | | Demand, time and saving deposits |
| 2% bank accounts; 2.5% max. In vault | Deposits at central bank and vault cash (up to 15%) | Vault cash and bank deposits in central bank | Deposits at central bank | Vault cash and bank deposits in central bank |
| No | Yes | Yes, in foreign currency | No | Yes, in foreign currency |
| Yes | Yes | Yes | Yes (subject to daily Max. And Min) | Yes |
| 2 weeks | One week | One month | 4 weeks | One month |
| No | Yes | No | No | Yes |
| Yes | TBC+18%p.a+penalties | 1.5 times average market rate | Twice market rate | 1.5 times the average active rate |

***Source:*** Jozef Van 't dack, Implementing monetary policy in emerging market economies: an overview of issues; BIS Policy Papers June 14, 1999