

5 Money and Banking

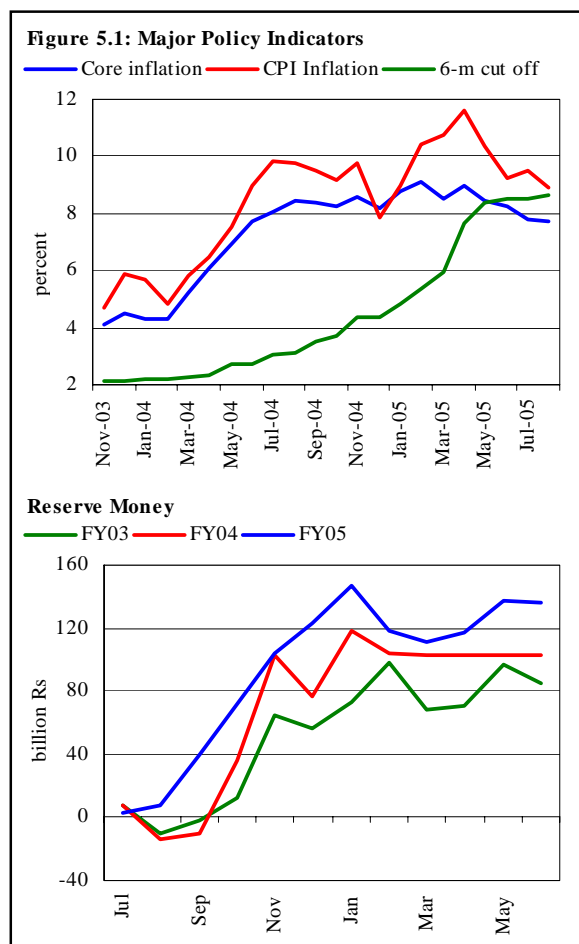
Monetary policy witnessed an important transition during FY05, switching from a broadly accommodative stance (that had continued from recent years) to an aggressive tightening in the second half of the fiscal year. It should be noted that SBP had begun to raise the benchmark interest rates early in FY04, but this increase was very gradual until January 2005. The moderate rise was driven by the fact that inflation, while increasing, was still quite low, and therefore the central bank was more concerned about derailing the momentum of the economy (see **Box 5.1**), which had only just started gathering pace after an extended period of weak growth. This consideration guided monetary policy throughout H1-FY05.

While the SBP sought to strike a balance between promoting growth (in the short-term) and controlling inflation (and therefore the long-term stability of the growth trend), during H1-FY05, the reluctance of SBP to tighten monetary policy was supported by a number of considerations, including:

(1) The contribution of supply-side and structural components to inflationary pressures. These are typically less responsive to monetary policy, and are therefore better tackled through administrative and fiscal measures. Moreover, SBP forecasts had suggested that the supply-side inflation would decelerate by Q3-FY05¹ and CPI inflation was indeed weakening (though very gradually) early in H1-FY05. All of this militated against an aggressive hike in interest rates

(2) More importantly this stance was further supported by the fact that monetary research with regard to the trade-off between growth and inflation indicates that inflation in excess of an 8-12 percent (threshold level)² (see **Box 5.2**) hurts growth in the long run and is inconclusive for inflation rates lower than the threshold level of 8-12 percent. This suggested that the SBP could actually defer an aggressive monetary tightening for some time before negative growth implications would be visible.

The SBP therefore opted to raise interest rates moderately throughout the period, but kept



¹ This was based on the assumption that improvements in supplies would reduce food prices, while an anticipated decline in the international oil prices would allow the government to keep its pledge of holding domestic oil prices unchanged.

² Khan S. Mohsin and Abdelhak S. Senhadji, Threshold effects in the relationship between inflation and growth, IMF Working Paper No WW/00/110, June 2000.

the benchmark rates well below inflation (see **Figure 5.1**).

Box 5.1: Sacrifice Ratio

Research on the relationship between inflation and growth has reached to a general consensus that high and persistent inflation is detrimental to long run economic growth. This is because high inflation causes reluctance to invest due to uncertain real returns. Thus, keeping inflation at low level is imperative for sustained long-term growth. Research, however, also indicates that bringing inflation down results in the output loss in the short-run. This is because efforts to reduce inflation by monetary authorities can lead to a temporary decline in aggregate demand. Various studies have been carried out to quantify the extent of output loss associate with reduction in inflation. The *Sacrifice ratio* in this context, quantifies the cumulative output loss, measured as a percent of one-year GDP, arising from a one percentage point permanent reduction in inflation. Estimates of sacrifice ratio are sensitive to techniques of estimation, pace of monetary tightening, expectations, pace and frequency of wage adjustments, effectiveness of monetary policy, autonomy and credibility of the central bank.

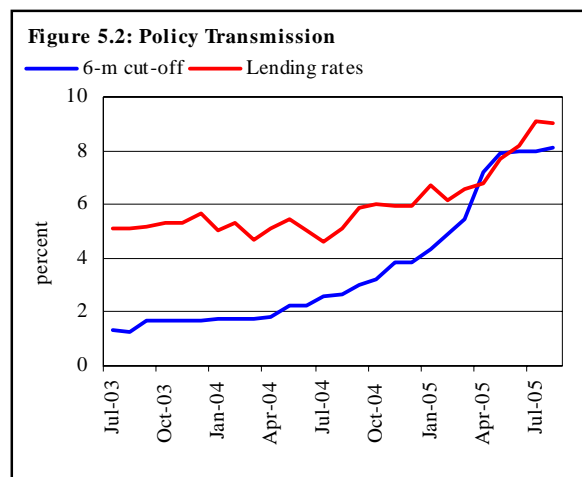
Traditionally, two methods have been used to estimate the sacrifice ratio; (1), the expectations augmented Phillips curve method; and (2) the episode specific method. Of these, the expectations augmented Phillips curve method is more frequently used that estimates sacrifice ratio through linear (constant sloped) Phillips curve; where constant slope reflects that output cost of fighting inflation does not vary with the strength of the economy. In other words, it does not take into account the variation in output loss in various stages of the business cycle. The second method, which is referred as the episode specific method, estimates the sacrifice ratio at different intervals by using moving averages of GDP and inflation indices.

Various studies have attempted to estimate the sacrifice ratio for different countries. For example, Okun (1978) evaluated the short run trade off between inflation and unemployment in United States. According to his estimates, “the average estimate of the cost of a 1 point reduction in the basic inflation rate is 10 percent of a year’s GDP, with a range of 6 to 18 percent”. Gordon and King (1982) refined Okun’s estimates of sacrifice ratio by incorporating various other factors effecting inflation & output and found that one percentage point decline in inflation was associated with cumulative 3 percent output loss after 4 years. Cerrhetti and Rich (1999) examined output cost of disinflation for U.S economy falling in the range of 1.3-10 percent of a year’s real GDP. Ball (1993) found lower sacrifice ratio in quick disinflation with more flexible wage-settings. In India, sacrifice ratio is estimated to be relatively lower than that of the industrial economies at almost 2 percent over the period of 1975-2000.

References:

- (1) Ball (1993), “What Determines the Sacrifice Ratio?” *NBER Working Paper No.4306*
- (2) Logue E. Dennis; Richard James Sweeney, Inflation and Real Growth: Some Empirical Results: Note, *Journal of Money, Credit and Banking* > Vol. 13, No. 4 (Nov., 1981), pp. 497-501
- (3) Cecchetti and Rich (1999), “Structural Estimates of the U.S Sacrifice Ratio” FRB New York Staff Report No. 71
- (4) Filardo (1998), “New Evidence on the Output Cost of Fighting Inflation”. *Economic Review (Kansas City)*
- (5) Report on Currency and Finance, 2000-2001, Reserve Bank of India

It is important to note that despite the gradual increase in interest rates, there was little evidence of a corresponding rise in the lending rates throughout H1-FY05 (see **Figure 5.2**). Not surprisingly, net credit rose by a record Rs 428.8 billion during FY05 (see **Figure 5.3**). In particular, industrial production registered an impressive growth and the capacity utilization in a number of industries increased, especially in *electronics and automobiles* where the increased activities are mainly credit driven.³ The second round effects of credit growth resulted



³ For details see **Chapter 2**.

in a more broad based credit demand (which can be seen in declining credit concentration during the year). The major demand came from the *manufacturing, construction, agriculture, power and telecommunication* sectors. Together with higher government borrowings during FY05, the private sector credit growth resulted in an acceleration in monetary expansion.

Box 5.2: Recent findings on threshold inflation in Pakistan

The most common and central objective of monetary policy in any economy is price stability and sustained economic growth. Although, the precise relation between these two variables is still unclear, a broad consensus has now been developed over some aspects of this issue. It is now widely accepted that the high inflation has a negative impact on medium to long term economic growth and that the impact of inflation on growth becomes negative only when it reaches a certain threshold level. Studies by Ball (1992) Fischer (1993), and Khan and Senhadji (2000) are a few examples of such work.

A study by Ghosh (1997) suggested that there are three threshold levels of inflation. The transition countries, with more than 35 percent inflation have an 80 percent probability of low growth. A second threshold level of inflation occurs at 9 percent; countries with more than 9 percent inflation have a conditional probability of 41 percent of achieving high growth. However, countries with less than 9 percent inflation have a conditional probability of 55 percent of achieving high growth.

Further, Khan and Senhadji (2001) estimated the threshold inflation level for both industrialized and developing countries. Using panel data for 140 countries for the period of 1960-98, they suggested the existence of a threshold beyond which the inflation exerts negative impact on economic growth. For industrial economies, this threshold estimated at between 1-3 percent and for developing countries, it was estimated to lie within the range of 7-11 percent.

In India, a number of studies have been conducted to estimate the threshold level of inflation (see **Table 5.2.1**). The difference in the estimated levels is because results are sensitive to the methodology used, period of study and the choice of plausible factors determining growth. The results reported in RBI Report on Currency and Finance 2000-01 2002-02 shows the threshold estimated threshold inflation of India at 5 percent for the period of 1970-71 to 1999-2000.

More recently in 2005, a study was conducted in SBP to estimate the threshold model in Pakistan using the data from 1973 to 2000. Before estimating the threshold model, Granger Causality was applied to gauge the linear causation between inflation and economic growth. Test statistics showed that the causality between two variables is uni-directed and it is inflation that Granger causes GDP growth in Pakistan at two lags. To estimate the equation, the model developed by Khan and Senhadji was used which is based on four variable model consisting of economic growth, inflation, population and total investment growth rates.

$$\text{GROWTH} = \beta_0 + \beta_1 (\text{INF}_t) + \beta_2 * \text{Dt} (\text{INF}_{t-K}) + \beta_3 (\text{POP}_t) + \beta_4 (\text{INVST}_t) + U_t$$

Study	Year of Study	Period of Study	threshold Inflation
Rangarajan	1998	-	5-7
Kannan and Joshi	1998	1981-96	6.0
Vasudevan, Bhoi & Dhal	1998	1961-98	5-7
Samantaraya and Prasad	2001	1970-99	6.5
Estimate of the RBI	2001	1970-2000	5.0

Source: Report on Currency and Finance 2000-2001, RBI

Here, the parameter k represents the threshold inflation level. The optimal k is obtained by finding that value which minimizes the residual sum of squares (RSS); inflation at this level has a significant impact on economic growth. The results suggested that for low inflation levels ($k \leq 9$) there is an insignificant relationship between output growth and inflation; and for higher inflation level ($k \geq 9$) there is a significant negative relationship between economic growth output and inflation. Thus, 9 percent inflation level is a threshold level above which, growth is estimated to decline by 0.08 percent.

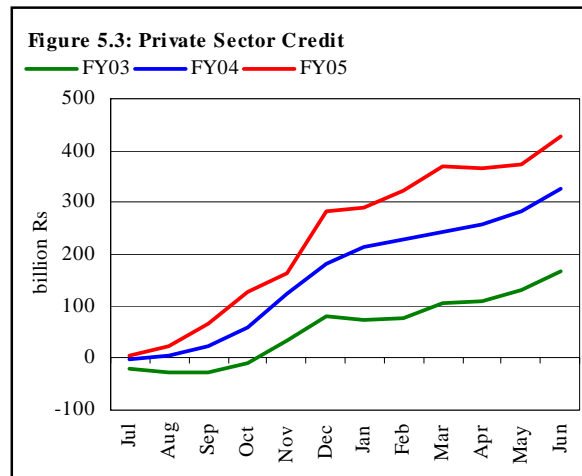
References

- (1) Khan S. Mohsin and Abdelhak S. Senhadji, Threshold effects in the relationship between inflation and growth, IMF Working Paper No WW/00/110, June 2000.
- (2) Ghosh R. Atish, Inflation in transition economies: How much? And why? IMF Working Paper No WP/97/80, July 1997
- (3) Mubarik A. Yasir, Inflation and growth: an estimate of the threshold level of inflation in Pakistan, State Bank of Pakistan Research Bulletin, Vol. 1, No. 1, 2005.
- (4) Report on Currency and Finance 2000-2001, Reserve Bank of India.

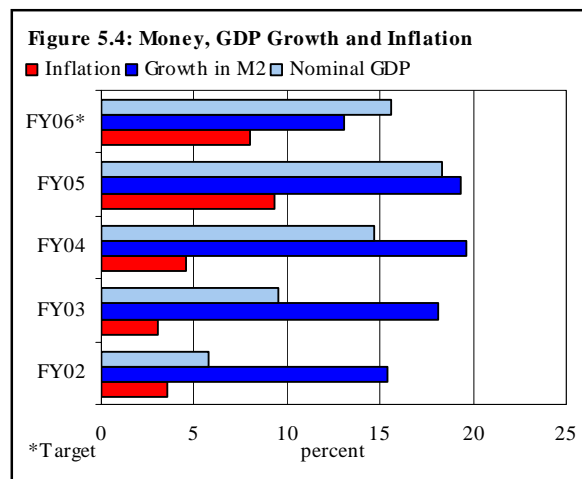
Although this monetary expansion led to a welcome increase in industrial activity, it also fed a gradual and continuous rise in core inflation which raised the pressure for a significant rise in interest rates. The inflation expectations hardened further as increases in oil prices turned out to be a permanent rather than a transient phenomenon, and the increased pressure on the government's fiscal

resources forced it to retract its commitment to keep a cap on the oil prices. As a consequence of government’s decision to pass on the impact of rising oil prices to consumers, food prices also bounced back (despite improved supplies), mainly due to a rise in transportation costs and hoarding. These pressures were further strengthened by the fact that not only the oil prices were expected to rise further; the second round effects of oil inflation had also started appearing.

In response to signs that the economy may overheat in absence of corrective measures, as well as to curb cost push inflation, SBP raised the discount rate (for the first time after June 2001) during April 2005, by 150 basis points. This rise in interest rates was supported by high liquidity absorptions through OMOs and a slow down in reserve money growth (see **Section 5.2**). This, coupled with higher acceptance ratio in T-bill auctions during these months compared with initial nine months of the fiscal year, further drained inter bank liquidity and resulted in an increase in discounting activities.⁴ As a result, the transmission of monetary signal was far more effective during H2-FY05 (see **Figure 5.2**).



The impact of these tightening measures, coupled with on-going administrative measures to ensure price stability in essential food items, was reflected in a slowdown in overall CPI inflation as well as in core inflation, May 2005 onwards. However, even the aggressive tightening cannot ensure the containing of inflationary pressures given the carry forward liquidity overhang from the preceding three years (see **Figure 5.4**) and the persistent fluctuations in international oil prices. It should be noted that although the pace of rise in inflation has subsided, the effectiveness of the SBP policy in curtailing inflation in the long run will hinge mainly on two factors: (1) How well is SBP able to manage the expectations of the stakeholders and establish its credibility (see **Box 5.3**), and (2) The efficiency of administrative and fiscal measures taken by the government.



The role of fiscal discipline, in particular, is crucial – it must be kept in mind that the low interest rates prevalent in the preceding years, was aided, in part, by the low growth in government financing requirements. The weaknesses observed in the fiscal position during Q4-FY05 raises fundamental question as to the policy mix that is required to carry on the growth momentum. In particular, the emergence of easy fiscal and tight monetary mix can potentially raise the interest rates very sharply and create recessionary pressures in the economy.⁵ It is important to note that despite higher fiscal

⁴ Please see **Section 5.2.3** for details.

⁵ It should be noted that if government borrows from central bank directly, it will increase the reserve money growth and therefore monetary tightening can turn ineffective. On the other hand, if government borrows from commercial banks, it will

Box 5.3: The role of expectations in making monetary policy effective and the role of policy credibility

In every economy, monetary policy works essentially through its influence on the aggregate demand in the economy to attain its objectives of sustainable economic growth and price stability. Any change in the monetary policy impacts the aggregate demand through various channels including the interest rate channel, exchange rate channel, asset price channel and expectations/confidence channel. Whereas the mechanism and extent of policy response through first three channels are quite clear; the expectations/confidence pass through to aggregate demand is still not quantifiable or predictable. The available economic research has at least spelled out one aspect: if expectations go in line with the committed monetary stance, it can facilitate and expedite the monetary policy transmission mechanism; or else, there will be long and variable lags in policy response getting transmitted to the macroeconomic variables.

Theoretically, the inflation expectation channels work as follows; the Central Bank announces that it is concerned over the rising inflation numbers and economy needs a monetary tightening. If the Central Bank is perceived to keep policy aligned with its announcement, then this announcement will create expectations among firms and households (economic agents) that the future inflation will be lower than the current inflation. If economic agents are confident that inflation will be kept low in future, they will adjust the wages and salaries upwards only moderately. In addition, firms will consider the prevailing increase in costs as temporary and will maintain the prices stable. In this manner, expectations can facilitate the price stability objective of a Central Bank.

However, the confidence of the economic agents on Central Bank plays a crucial role. For instance, in the channel mentioned above, the key assumption has been the credibility of Central Bank. Specifically it means that when the Central Bank announces its target, economic agents accept that the target would be achieved. In other words, there is no difference between the announced target for a certain variable and the expected outcome. However, in reality the two may differ. There are two possible reasons for this to happen; (1) lack of clarity in policy; and (2) lack of Central Bank credibility.

The first can be explained considering different interpretations of announced monetary tightening. For instance, economic agents might interpret this target as indicating that the Central Bank believes that economy is growing faster than expected, therefore there is a need to slow it down. In such a case, the interest rate rise will further boost investors' confidence and expectation of future growth. Another interpretation of the same policy measure could be that Central Bank wants to slow the growth to maintain price stability. In such a case, the expectations of future growth would be moderated and investors' confidence will also be lower.

The second is based on the assumption that economic agents do not believe what Central Bank announces. For instance, Central Bank raises interest rates and announces that the future inflation will be lower than the current inflation, but economic agents do not have confidence on the Central Bank's commitment, and continue with the current wage and price adjustments. Besides, they may also be concerned more about the stage of business cycle and events in international economy and overlook the Central Bank's commitment. Because of this, it sometimes may take longer time in adjusting expectations in the economy as per the announced policy; and therefore the policy takes time in transmitting to the ultimate objectives (and in the worst cases, the impact could be contrary to the Central Bank's objectives).

References

- (1) The transmission mechanism of monetary policy, the Monetary Policy Committee, Bank of England.
- (2) Monetary policy, cyclical fluctuations and competitiveness, Jarle Berge, Deputy Governor of Norges Bank. Address to the Norwegian Association of Economists, 5 September 2002.
- (3) Monetary policy description on The Riksbank, Central Bank of Sweden.
- (4) Monetary policy and policy credibility: Theories and evidence, Keith Blackburn and Michael Christensen, Journal of economic literature Vol. 27, No. 1 Mar 1989 (1 – 45).

deficit, the government borrowing from banks was subdued due to the availability of external finance. The happy continuation of this trend can not be taken for granted.

The State Bank has changed its policy stance in July 2005 by committing itself to achieve the objective of price and exchange rate stability, as the balance of risk has shifted clearly in this

go in line with the monetary tightening and will increase the interest rates more sharply and will also lower the credit availability for private sector.

direction. It should also be noted that while monetary policy may affect the overall inflation by controlling the demand side; prudent administrative measures should also go parallel in anti-inflationary drive. These may include rapid fiscal adjustments to a rise in international oil and commodity prices, ensuring adequate supply of major food items all the times so as to avoid even short term price hikes, and strict anti-hoarding arrangements.⁶ During the course of FY06, financial stability issues shall not be ignored given the risks associated with the rising interest rates. Monetary policy, therefore, will also face the challenge of sustaining banking system soundness and ensuring that the changes in interest rates could be translated to banks' financial positions in a non-disruptive manner.

5.1 Monetary Survey

While the revised Credit Plan for FY05 envisaged a monetary growth of 14.5 percent, the actual monetary expansion during FY05 registered a growth of 19.3 percent, only slightly slower than the 19.6 percent growth during FY04. In absolute terms, however, monetary expansion of Rs 479.1 billion during FY05 was significantly higher than Rs 407.8 billion expansion in FY04. The structure of growth in two years was quite similar as the growth in M2 has been caused by growth in NDA in both the years, in principal (see **Table 5.1**).

The major causative factor for NDA growth during FY05 was the continued growth in credit to private sector in the presence of negative real interest rates. Its impact was further supported by the larger than expected rise in government sector borrowings from scheduled banks. On the other hand, while the contribution from NFA growth in overall monetary expansion has been small in both FY04 and FY05, its structure in the two periods has been quite contrasting. Specifically, where FY04 NFA growth was led solely by SBP NFA growth, during FY05 the NFA growth was due to a rise in the NFA of scheduled banks.

5.1.1 Net Foreign Assets

The NFA of the banking system increased by Rs 53.7 billion during FY05 compared with an increase of Rs 43.5 billion in FY04, with an increase of Rs 62.3 billion in the NFA of scheduled banks being partially offset by a fall (of Rs 8.5 billion) in the SBP NFA.

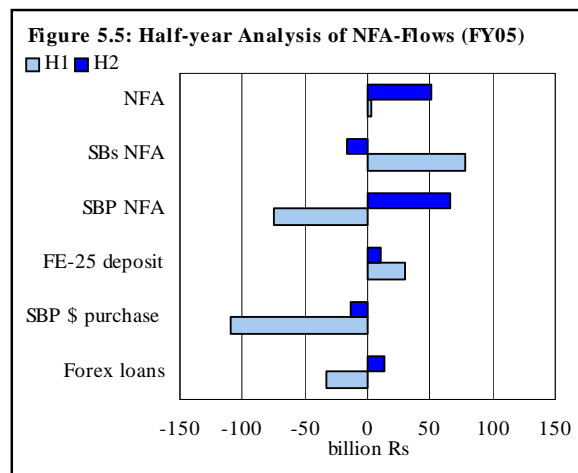
During H1-FY05, the NFA of scheduled banks rose sharply (as expectations of Rupee depreciation led to a rise in FE-25 deposits and a retirement of FE-25 loans), but the overall NFA of the banking sector remained almost unchanged as the SBP NFA declined, largely reflecting heavy market interventions to reduce market volatility (see **Figure 5.5**).

Table 5.1: Causative Factors of Money Supply

	billion Rupees		
	FY04	FY05	
	Actual	Credit Plan	Actual
Monetary assets	407.8	360.0	479.0
percent change	19.6	14.5	19.3
1. NFA	43.5	30.0	53.7
SBP	50.5		-8.5
Scheduled banks	-7.0		62.3
2. NDA	364.3	330.0	425.3
SBP	37.5		130.3
Scheduled banks	326.8		295.0
A. Government sector	58.1	65.0	92.0
a. Budgetary support	63.7	60.0	68.0
SBP	60.0		155.6
Scheduled banks	3.7		-87.6
b. Commodity operations	-8.2	5.0	22.0
c. Others	2.6		2.0
B. Non government sector	315.4	330.0	409.6
a. Private sector credit	325.2	350.0	428.8
of which EFS	30.0		23.2
b. PSEs	-2.9	-15.0	-12.7
c. Other financial institutions	-6.9	-5.0	-6.5
C. OIN	-9.2	-65.0	-76.3
a. SBP	-14.9		-19.2
b. Scheduled banks	5.7		-57.1

⁶ For details, please see **Box 3.1** in *SBP Third Quarterly Report for FY05*.

Subsequently, as the Rupee stabilized following SBP interventions, H2-FY05 saw a small decline in scheduled banks NFA as the effect of slow growth in forex deposits was offset by a small jump in FE-25 loans. The impact of the decline in scheduled banks NFA, in turn, was overshadowed by a rise in SBP NFA as net market interventions were minimal, and forex inflows (including aid flow, receipts from the *sukuk* issue and privatization proceeds) rose sharply. As a result, the aggregate NFA of the banking sector increased during the period. Indeed, the bulk of the rise in the banking sector NFA during the whole of FY05 was realized in the second half of the year.



5.1.2 Net Domestic Assets-NDA

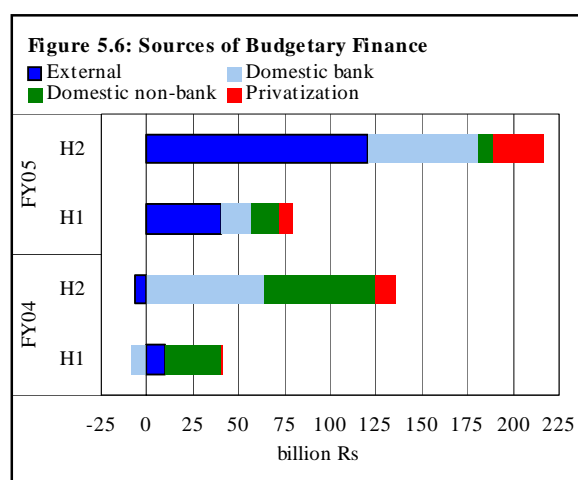
The NDA of the banking system registered an extraordinary increase of Rs 425.3 billion during FY05, significantly higher than the revised estimate of Rs 330.0 billion in Credit Plan and the Rs 364.3 billion increase seen during FY04. Moreover, while the NDA growth in both years was brought about mainly by the NDA growth of scheduled banks; the contribution of SBP NDA growth was also sizeable in FY05. The latter was mainly due to a sharp rise in government borrowing for budgetary support from SBP during FY05, especially during the first half of the year.

5.1.3 Government Borrowings

Government borrowings from the banking system registered an increase of Rs 92.0 billion during FY05, exceeding the revised target of Rs 65.0 billion set in the credit plan for the year (see **Box 5.4**). This increase was attributable mainly to a sharp rise of Rs 22.0 billion in government borrowings for commodity operations during FY05, compared with the revised target of Rs 5.0 billion and the *net retirement* of Rs 8.2 billion during FY04.

Budgetary Support

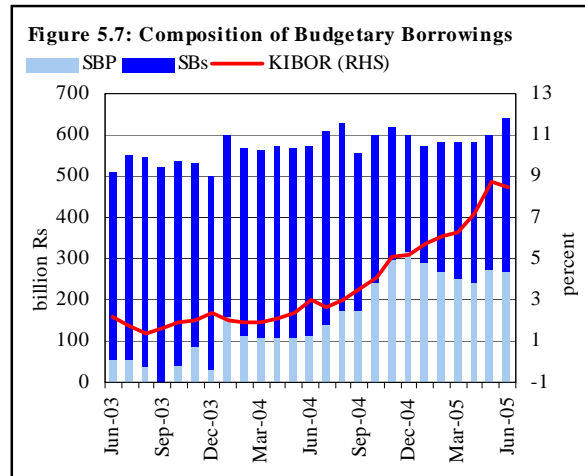
Although, in Rupee terms, the change in the fiscal balance was 35.7 percent YoY higher during FY05,⁷ government borrowings for budgetary support from the banking system increased to only Rs 68.0 billion during FY05, up only slightly from the Rs 63.7 billion during FY04. This is explained by the changing inflows under other financing heads. Specifically, below target non-bank borrowings were comfortably offset by a large jump in net external receipts (including sovereign debt offerings and higher aid inflows) and a rise in receipts from privatizations (see **Figure 5.6**).



⁷ As shown from the rise in budget deficit to GDP ratio from 3.0 in FY04 percent to 3.3 percent in FY05.

Another interesting facet of the FY05 budgetary financing is the clear shift in the composition of government borrowings from the banking system through the year. Specifically, during H1-FY05, there was a decline in the stock of government securities with scheduled banks (see **Figure 5.7**).

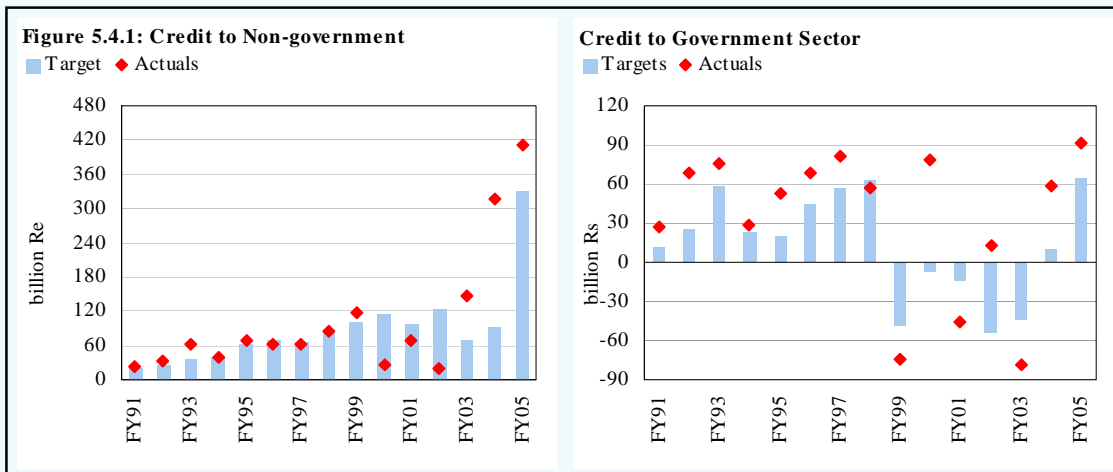
This was because banks were seeking higher rates in T-bill auctions, given the rising domestic inflation. However, as the SBP was more concerned about sustaining the balance between containing inflation and growth momentum, it allowed yields to rise only gradually. As a result, during this period, the bulk of the government's borrowings from the banking system were from SBP.



Box 5.4: Credit Plan; Targets and Actual

Expectations play a vital role in making monetary policy effective and the annual credit plan can play an important role in helping SBP establish expectations. This is because if SBP consistently meets the targets set for monetary aggregates, it can earn more credibility from economic agents. Failure in meeting the targets on few occasions is understandable, given the supply shocks or other unexpected development during the year. However, if for a number of years, estimates prove to be incorrect at the end of the year, market expectations may or may not ignore policy announcements.

In setting the credit plan, basically there are two broad factors that are estimated; (1) net domestic assets-NDA; and (2) Net foreign assets-NFA. To estimate the annual figure of NDA, estimates of credit to government sector and non-government sector are used. Where former involves the SBP coordination with fiscal authorities; the latter is reflective of the SBP's monetary stance for the year. The NFA is estimated by making projections of all expected foreign inflows and outflows during the year and likely movements in exchange rate that might influence the mobilization of foreign currency deposits. As the balance of payments, accounts are vulnerable to exogenous changes; there is an inherent risk that the estimates of NFA may go astray of the targets. However, one expects that projections of domestic credit would be more accurate as monetary and fiscal authorities have reasonable control over the underlying variables, and the likelihood of external shocks affecting these projections is relatively lower.



However, the experience of the last 15 years shows that this has not been the case (see **Figure 5.4.1**). As can be seen, almost throughout this period, the two components of the domestic credit have either exceeded or fallen short of their initial estimates. On the face it, credit to non-government sector, which is directly influenced by the SBP monetary stance, seems

to have remained largely within the target. However, this is only because prior to FY02 indicative credit targets were set for individual commercial banks for private sector credit (on the basis of five performance indicators) and the banks could not expand credit beyond their respective limits for the year. This framework of indicative credit targets remained operative till Q4-FY01 after which banks were allowed to expand credit without any indicative limit. As a result, thereon, actual credit tonon-government sector started to deviate from the credit plan. Similarly, government borrowings, which reflect the fiscal stance have also deviated significantly and consistently from the targets set in the credit plan. Although one cannot negate the possibilities of unexpected development (shocks) during some years that may have resulted in such deviations; the extent and consistency with which these deviations have occurred, do not go along well with the objective of establishing credibility.

The estimates of announced credit targets may themselves suffer from inherent weaknesses as the rapid changes in the structure of the economy, the shift in the relative composition of domestic demand for bank credit, unanticipated exogenous shocks and behavioral assumptions about the reaction functions of private economic agents may render the past relationships invalid and make it difficult to predict with any amount of certainty the growth of credit in a given period, i.e. 12 months.

This said, it should also be noted that the underlying causes for these deviations vary significantly. For instance, during 1990s, the more than expected fiscal deficits were the major factor in borrowings exceeding the targets; but FY99 onwards, out of 4 occasions (FY00, FY02, FY04 and FY05) it was only twice that a rise in fiscal deficit led to higher than expected borrowings. In rest of the two years, it was the *unexpected* shift in the composition of gross budgetary borrowings (from domestic bank, domestic non-bank and the external resources) that caused the deviations.

This gives us two different sets of errors that the pre-commitments may possess; (1) absence of ensuring monetary or fiscal discipline; and (2) miscalculation while estimating and pre-committing the variables at the start of year. While former could be a factor of a number of macroeconomic developments; latter can be rectified by following these approaches:

- (1) Use a pragmatic approach while pre-committing. This is essential because too ambitious estimates may not be accepted by economic agents; in addition to carrying a higher probability of failure.
- (2) Pre-commitments/estimates should be tied with certain constraints, domestic or international. It has been observed, that when these constraints are defined as the cause of not meeting the targets at end of the year, economic agents usually exhibit skepticism, no matter how genuine these constraints are. Instead, it is easier for central banks to explain the deviations if the constraints have already been hinted at while announcing the credit plan.
- (3) a strong coordination between SBP and government while setting the annual targets. For instance, during FY04, government decided to borrow Rupee funds to pay its expensive external debt. Since this decision was not taken into account in the Federal Budget for 2003-2004, government borrowings from the banking system were Rs 48.7 billion higher than what was estimated. During the same year, government announced large PIB auctions which the inter bank market was not informed of beforehand. Such developments not only lower the credibility of the monetary authorities but also complicate the monetary management and create volatility in short term interest rates.

References

- (1) Janjua, M. Ashraf, History of the State Bank of Pakistan (1988-2003), Chapter 2, Monetary policy and Credit management (1988-2003)
- (2) Keith Blackburn, Michael Christensen, Monetary policy and policy credibility: theories and evidence; Journal of Economic Literature, Vol. 27, No. 1 (March 1989)

However, this position had changed by January 2005. On the one hand, banks had moderated their expectations of an interest rates hike and their holdings of short term government securities were relatively low, while on the other, the SBP was increasingly tilting towards containing inflation (as the economy now seemed set to record strong growth). Thus, February 2005 onwards, scheduled banks increasingly met the government's requirements for budgetary borrowings from the banking system.

Commodity operations

Loans for commodity operations during FY05 increased by Rs 22.0 billion, in contrast to net retirement of Rs 8.0 billion during FY04. This is largely attributable to higher wheat purchases by the government as it sought to build up its reserves, in order to quell speculative pressures later in the

year.⁸ Specifically, following the efforts to deregulate wheat procurement and to encourage private sector participation in the procurement and storage of wheat, the government borrowings for commodity operations declined significantly during FY03 and FY04, with a corresponding net decline in the stocks of commodity operation loans during these years (see **Figure 5.8**).

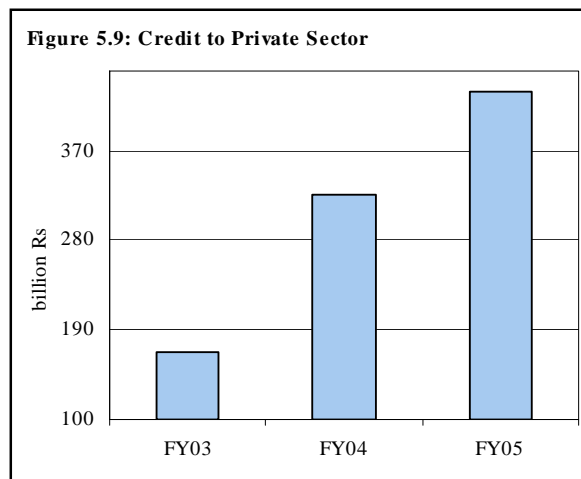
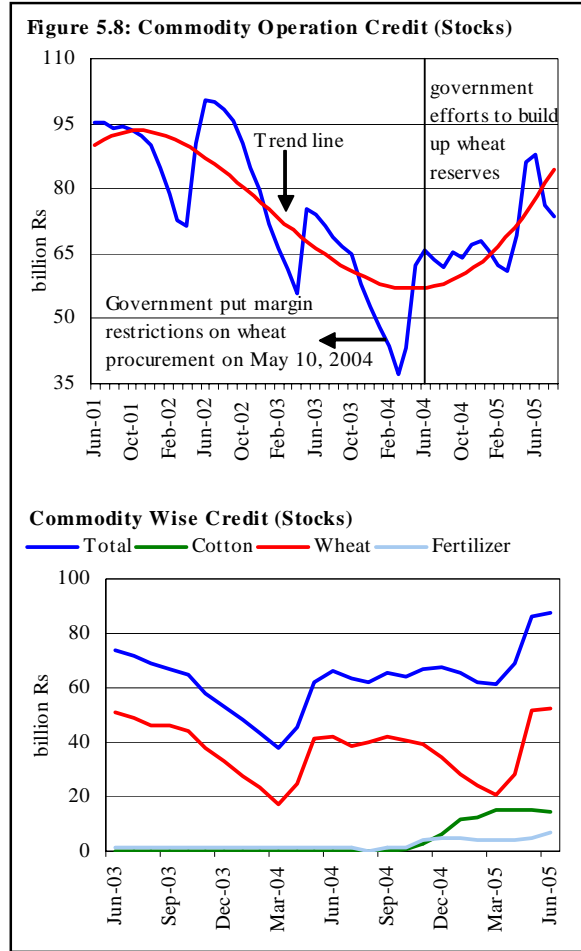
However, the smaller government wheat stocks left the door open for hoarders to push up prices by creating artificial shortages. Following this experience, the government increased wheat purchases and raised imports during FY05. This is reflected in the fact that there were negligible retirements of commodity operations loans between the first and third quarter (Q1 to Q3) of the fiscal year,⁹ when these loans normally see retirements.

The FY05 commodity operation loans were further swollen by the Rs 15.0 billion borrowed by TCP to support local cotton prices following a bumper crop. The TCP also borrowed for urea imports.

5.1.4 Private Sector Credit

The net credit to the private sector registered an expansion of Rs 428.8 billion during FY05 compared with Rs 325.2 billion expansion during FY04, and comfortably surpassing the Rs 350 billion expansion envisaged in the revised credit plan for FY05 (see **Figure 5.9**).

This was achieved despite weak growth in trade-related loans. As reflected in the sectoral distribution of the credit, the rise is attributable to a number of factors, including the growing demand for consumer credit, increased confidence in the agricultural sectors (increased credit access and commercial banks’ marketing efforts to the sector), recovery by the construction industry, etc.



⁸ This is because wheat finance constitutes over 60 percent of total commodity operations.

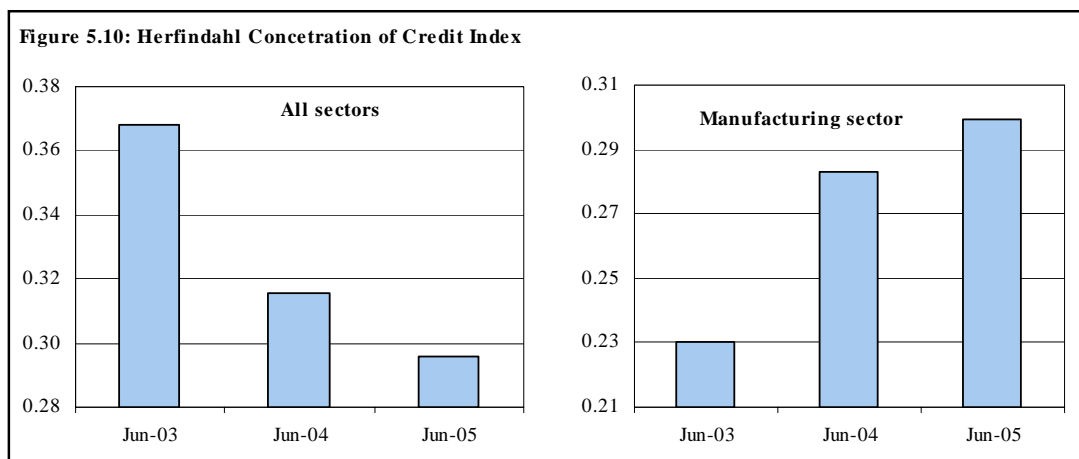
⁹ During Jul-Mar FY05, government retired Rs 4.8 billion commodity operation loans compared with the net retirement of Rs 35.8 billion in FY04.

Sectoral distribution

As seen from the **Table 5.2**,¹⁰ credit expansion has largely remained broad based, with higher credit off take being registered by almost all major sectors of the economy. Indeed, the bank's asset portfolios appear to have become more diverse in recent years, as can be seen through the declining value of the Herfindahl index¹¹ in **Figure 5.10**, which shows the decline in credit concentration. This reflects the emergence of demand from some sectors (e.g. telecommunications and construction), and the increased credit access to others (including consumer, agriculture, and SME). Interestingly though, within the manufacturing industries, the Herfindahl index has increased in recent years, indicating a rising concentration of credit in a few manufacturing sub-sectors, in particular textiles and cement.

Table 5.2: Sectoral Distribution of Bank Credit-Adjusted
billion Rupees

	FY04	FY05	FY05 growth-in percent
Agriculture	15.4	20.7	19.0
Manufacturing	145.5	162.6	27.4
Textiles	78.4	88.2	30.6
Coke and petro	1.5	8.9	205.0
Chemicals	4.7	9.9	22.6
Cement	4.7	14.6	81.9
Transport & equipments	3.5	7.3	103.5
Power	3.1	5.3	52.4
Construction	2.5	13.1	71.7
Telecommunications	4.9	19.5	171.1
Personal	47.7	90.1	56.7



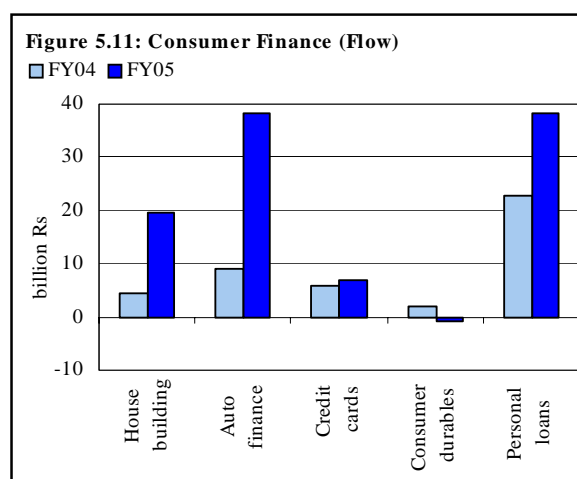
Credit demand for the agriculture sector has increased mainly due to active participation of commercial banks in agriculture credit, rise in fertilizer off-take, government's efforts to boost tractor financing and financing for other agriculture equipments and increased emphasize on building/purchase of on-farm godowns and cold storage.

Manufacturing sector has been the largest recipient of bank credit, as customary. Within manufacturing, textile sector has shown a tremendous growth of 26 percent (on stock) on a large base, while absorbing Rs 88.2 billion of credit during the year. Most of the financing has been done under the Textile vision 2005 program where around Rs 45.7 billion were disbursed during FY05 compared with Rs 36.8 billion in FY04. Cement, chemicals and machinery are other sectors where credit expansion during FY05 was strong.

¹⁰ Figures reported in this table are adjusted with the changes made in the classification of sub-categories during FY04. Therefore, these figures can not be reconciled with those reported in *SBP Annual Report for FY04* and with *Chapter 5 of Statistical Annexure in SBP Annual Report for FY05*.

¹¹ Herfindahl index 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.

Consumer finance continued to grow at robust pace and during FY05 registered an expansion of Rs 84.7 billion compared with a growth of Rs 45.9 billion during FY04. Unlike FY04, when the growth in consumer finance was led by personal loans, during FY05 auto loans and housing finance have also contributed significantly in the growth in consumer finance (see **Figure 5.11**). In fact, it was this growth in the consumer loans that probably had a second order impact on corporate loans. This is because as the demand in the automobiles and housing sector increased, the corporate financing also increased to meet the borrowing needs for increasing production in these sectors.



Credit growth in construction and telecommunication industries during FY05 was also quite significant compared with FY04. In particular, within the telecom sector, new companies have started operations in the country and existing companies are expanding networks and products, leading to a considerable increase in credit for both the fixed investment as well as for working capital. Similarly, the boom in housing industry in recent years has also been one of the factors in speeding up activities in the construction sector. Looking forward, the credit growth in the construction industry is likely to continue given the increasing emphasis on the role of private sector in undertaking infrastructure projects and the infrastructure financing in the country (see **Box 5.5**). In fact, SBP has already issued guidelines to the banks to facilitate and provide guidance to banks regarding infrastructure financing.

Table 5.3: Sector wise Break up of Loans (Domestic Operations)
billion Rupees

	FY04	FY05	Change in percent
Corporate sector	741.4	944.0	27.3
SMEs	231.7	313.6	35.3
Agriculture	108.7	131.5	20.9
Consumer finance	103.2	206.1	99.7
Commodity financing	90.0	140.3	55.9
Staff loans	39.7	40.5	2.0
Others	36.1	28.0	-22.4
Total	1350.8	1803.9	33.5

Box 5.5: Infrastructure Financing

Infrastructure financing refers to the financing for the projects relating to water management, sanitation, energy, roads & other aspects of transport, and telecommunication etc. Throughout the years, investments in infrastructure projects have been considered to be the responsibility of public sector. However, in recent years, private sector investment in infrastructure projects has risen sharply in developing countries. Investment in infrastructure projects with private participation in developing countries rose steadily through most of the 1990s, from \$18 billion in 1990 to a peak of nearly \$130 billion in 1997. By 2003 over \$890 billion had been invested in more than 2,700 projects. Of these the most successful private infrastructure projects were implemented in 136 low- and middle-income countries, with the transport sector attracting investment of \$143 billion and water sector \$ 45.5 billion. This shift and success of private sector in the infrastructure development has set new challenges for the financial institutions to innovate and design different modes of infrastructure financing, and risk management systems.

Realizing the increasing role of private sector in infrastructure projects all over the world, SBP has also encouraged banks to provide finances for the infrastructure projects in the private sector. Since infrastructure financing is a relatively different business by its very nature and design, SBP has issued prudential guidelines to banks to facilitate the projects and develop expertise among banks for financing these projects. Greater emphasis has been given to the credit appraisal process where banks have been advised to get information on the Project’s anticipated economic conditions, capital investment, and financing needs. In addition to this, banks/DFIs may also get the feasibility report independently reviewed by an engineering firm. In addition, banks are also advised to assess the different stages of the projects separately for risk mitigation purpose. In order to avoid asset liability mismatch, banks are advised to float infrastructure bonds to match the tenure of financing. This will be in addition to the asset securitization that has already been allowed to banks for lease, mortgage and toll road financing.

As many infrastructure projects have public good element embedded in them it is quite conceivable that the subsidy on account of public good characteristic of the project may be combined with market-determined risk adjusted return in an integrated project appraisal framework. Special purpose vehicles may then be set up for promoting public-private partnership or private build-operate-transfer structures to finance the infrastructure projects through this mixed financing modes and competitive bidding may be used to select the winner from among the private sector parties.

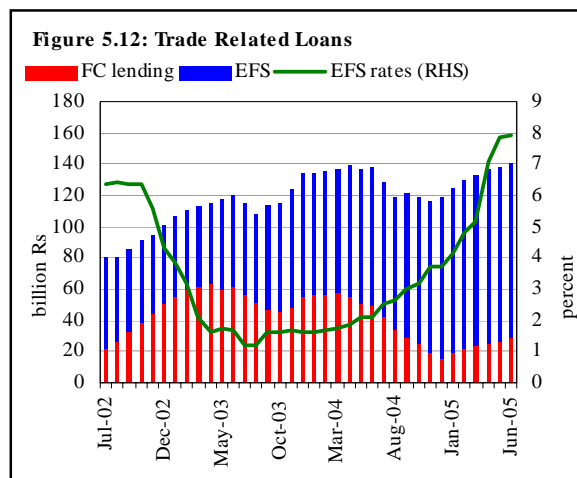
References

- (1)Public-private infrastructure advisory facility, Annual Report 2004
- (2) SBP prudential regulations for infrastructure financing

Credit to SMEs has also expanded significantly during FY05, it rose by Rs 81.9 billion to reach at Rs 313.6 billion at end Jun-2005 (see **Table 5.3**).¹² While this growth looks impressive, it is nonetheless far behind the potential for absorption of credit in this sector.¹³ Indeed, given the significant role of SMEs in domestic economy and the potential for employment generation¹⁴, it is important that credit to this sector be facilitated by the commercial banks in underserved areas of the country, and particularly where the nexus between agriculture business and small industry is quite strong.

Trade related loans

Trade related loans increased by Rs 3.2 billion, significantly lower than the Rs 18.2 billion increase seen during FY04. This smaller rise, despite of a robust growth of 17 percent in total exports of the economy is a little



¹² This table is based on quarterly financial statements of banks and the figures shown in this table will not tally with those reported in **Table 5.2** due to difference in definition.

¹³ For details see “Developing SME policy in Pakistan” SME Issues Paper -for deliberation by SME task force- Policy planning and strategy department, SMEDA.

¹⁴ In Pakistan, SMEs contribute 30 percent towards country’s GDP and along with agriculture provides 90 percent of jobs.

surprising, and appears to reflect a sharp rise in export refinance rates (that may have slowed growth); and more significantly, (2) expectations of a Rupee depreciation (that caused a net *decline* in FE-25 loans).¹⁵

As evident from **Figure 5.12**, FE-25 loans fell sharply during H1-FY05, when expectations of Rupee depreciation peaked, and only a part of this decline was offset by a rise in EFS loans.¹⁶

Thereafter, during H2-FY05 not only did EFS loans continue to rise despite a sharp increase in interest rates (reflecting rising export growth), the disbursement of FE-25 loans also recovered partially (probably mirroring the fading expectations of a large Rupee depreciation) (see **Table 5.4**). Thus, in aggregate terms, the sharp deceleration in the off-take of trade related credits is owed principally to the decline in FE-25 loans, that was only partially offset by the rise in EFS credit.

Understandably, the 450 basis points rise in EFS rates during FY05 raised concerns regarding the competitiveness of domestic exports in international market, especially textiles. In fact, the timing of rates hike was also crucial given the already increased competition in the textile exports given the phasing out of multi-fiber agreement. With this consideration, SBP changed the method of calculating the changes in EFS rates. Earlier, the EFS rates were linked with the last cut-off rate of 6-month T-bill auction. Therefore, any sharp rise in these rates resulted in a corresponding rise in EFS rates. However, July 2005 onwards, EFS rates are calculated on the basis of weighted average yield of 6-month t-bill in preceding three months. The effect of this change is evident in the widening difference between benchmark t-bill rates and the EFS rate (see **Figure 5.13**).

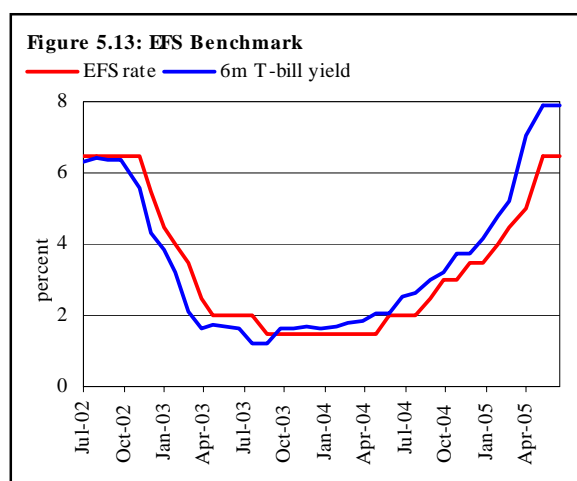
In addition to the EFS, a new scheme was introduced during May 2004 for providing long term financing for export-oriented projects (LTF-EOP). Unlike EFS, which is a short-term financing facility, LTF-EOP is a long term funding arrangement with maximum tenor ranging from 2 to 7 and a half years, and during FY05 out of total limit of Rs 11.4 billion, only Rs 3.3 billion has been utilized. Also, under this scheme, special preference has been given to the fixed investment projects related with SME finance, with the SBP allowing banks to utilize approximately half of their available limit to meet the financing needs of the SME sector. Unfortunately, however, up to June 2005, the SME sector has availed only 0.36 percent of the total limit provided for the year.

Banks' performance

A disaggregation of the credit data by type of bank reveals that all major banking groups contributed to the tremendous FY05 credit, although the largest share was accounted for by domestic private

Table 5.4: Trade Related Loans (flows)

billion Rupees	FY04		FY05	
	H1	H2	H1	H2
Forex lending	-5.2	-6.6	-33.6	13.6
EFS loans	20.3	9.7	14.9	8.3



¹⁵ An additional factor could possibly be a rise in profits of exporters (resulting in increased internal cash generation).

¹⁶ This partial substitution may simply reflect lower demand growth (as export growth was slowing in H1-FY05) or, suggests that at least part of the FE-25 loans is taken for arbitrage (and is retired when the effective cost of these loans rises).

banks. Encouragingly, despite phenomenal increase in the volume of credit, indicators do not, as yet, suggest an increased risk to banking system stability. In fact, quite to the contrary, major performance indicators show an improvement in financial health of banking institutions. For instance, banks' earnings have improved due to the large credit expansion especially given rise in interest rates and the trend in diversified deployment of credit across sectors. In particular, SME and consumer finance are relatively riskier financing products and thus yield higher returns compared with corporate finance.¹⁷

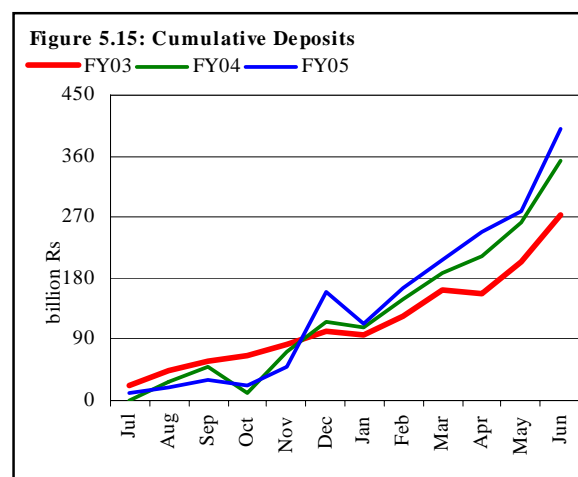
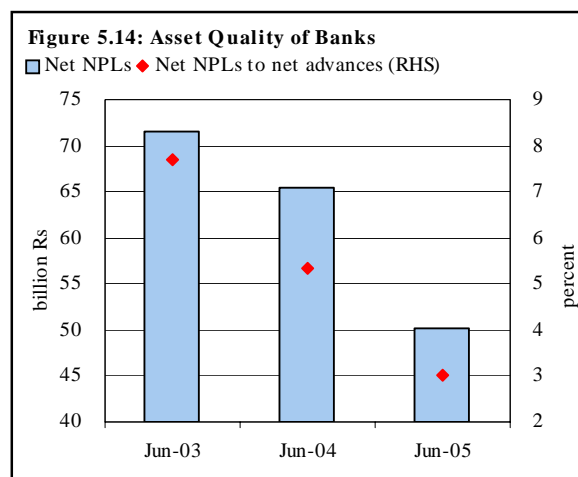
Similarly, the asset quality of banks has also improved by the end June 2005 as reflected in decline in net NPLs to net advances ratio.

This was due to both, a sharp rise in net advances and the Rs 15.2 billion decline in net NPLs during this year (see **Figure 5.14**). The latter, in turn, was the outcome of both, a decline in gross NPLs of the banks and the increase in provisioning during the year.

It should however be noted that the low interest rate environment has been one of the major factors in the improvement in asset quality of banks in recent years. However, in the preceding three months, interest rates have increased quite sharply which might have negative impact on the repayment capacity of the borrowers in future. This is important, given the fact that most of the lending in preceding years (especially in the consumer finance sector) has been done on floating rates.¹⁸ Similarly, the sharp increase in average loan size in the preceding three years has also increased banks' vulnerability against asset prices.¹⁹ This is because any sharp decline in asset prices may require banks to increase their provisioning.²⁰ Banks therefore have to remain cautious of such vulnerabilities and must improve their internal risk management systems so as to avoid deterioration in soundness indicators in the wake of rising interest rates.

5.1.5 Deposit Mobilization

The deposit base of the banking system registered a robust growth of 19.6 percent in FY05, slightly slower than the 21.0 percent growth in FY04 (see **Figure 5.15**).²¹ The strong growth, despite a high-base effect can be attributed to a number of factors such as; rising incomes, strong credit expansion,



¹⁷ This should be noted that SME finance and consumer finance constituted 18.0 percent and 22.7 percent respectively in total credit flow during FY05.

¹⁸ However, the general provisioning of 3 percent in case of consumer finance provides a cushion against these likely bad loans. Similarly, improvement in the foreclosure laws that guarantees banks' repossession of the assets, in case of default, without recourse to court also acts as a mitigant against the credit risk.

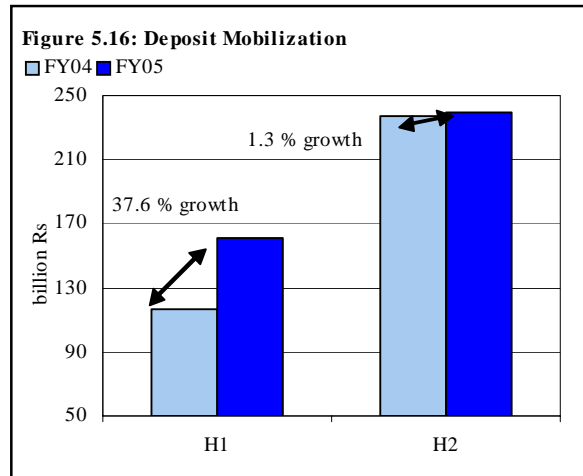
¹⁹ At present, over 22 percent of banking sector loans are backed by real estate (see *Box 4.1 in SBP Third Quarterly Report for 2004-2005* for details).

²⁰ Amount of provisioning is calculated by deducting the forced sale value of collateral from the original loan size.

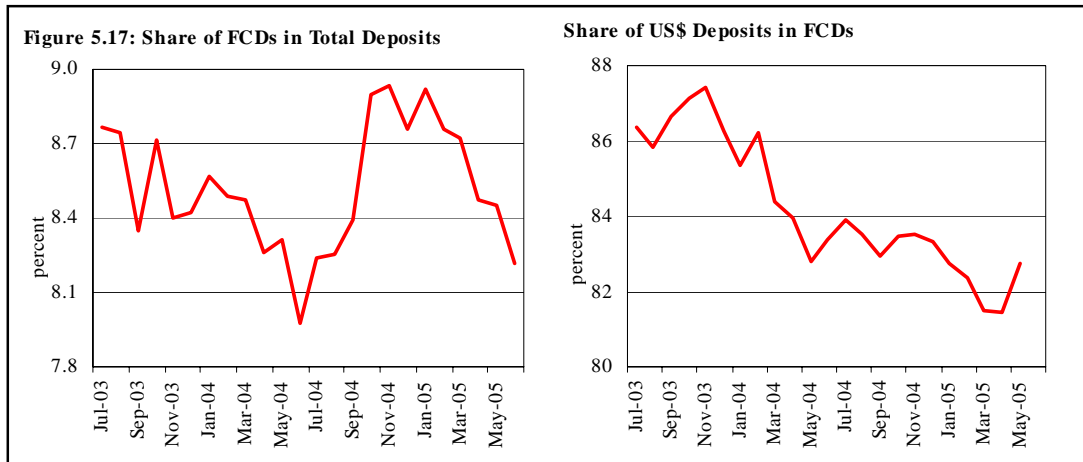
²¹ In absolute terms however, this translates into an unprecedented increase of Rs 401.5 billion in deposit base during FY05 compared with Rs 353.4 billion in FY04.

sustained high inflow of remittances, as well as the increasing intermediation efforts by the banking sector (as shown in the cash to deposit ratio).

Disaggregated data shows that deposit increase during H2-FY05 of Rs 240.2 billion was quite large compared with H1-FY05 deposit increase of Rs 161.3 billion (see **Figure 5.16**). However, the deposit growth in H2-FY05 has been quite smaller over the deposit growth during H2-FY04.



The larger share of forex deposits in aggregate deposit mobilization during FY05 reflects the expectations of a large Rupee depreciation in H1-FY05, which saw forex deposits rise 18.5 percent YoY. However, when SBP announced its commitment to preserve the exchange rate stability, market expectations changed and Rupee started gaining strength and as a response, growth in FCDs decelerated (see **Figure 5.17**). In addition to the exchange rate fluctuations, foreign direct investments coupled with the privatization related inflows in FCDs also contributed to these varying trends. The privatization inflows included the privatization proceeds of Attock Refinery and Pakistan Oil Fields that were deposited in FCDs in H1-FY05 and were shifted to SBP reserves during H2-FY05.



Another development in deposit mobilization during FY05 is the declining share of US dollar deposits in total FCAs. This was mainly due to depreciating value of Dollar against Sterling and Euro. As a result, growth in USD deposits (15.4 percent) was much smaller compared with the growth in Euro and Sterling deposits (23.8 and 32.2 percent respectively).

An analysis of the deposit concentration shows the declining trend in the holding of top ten banks from 80.5 percent to 75.5 percent in the last five years (see **Figure 5.18**). A further disaggregation shows that the domestic banks other than those nationalized or privatized have the largest share in incremental deposits during FY05. As a result, the share of deposits held by the five largest banks has also continued to decline. Another interesting development is the fact that during FY00, there were four foreign banks in the list of top 10 banks in terms of deposit mobilization and only one domestic private bank. However, by end FY05, there is only one foreign bank in the top 10 list, exhibiting the rapid growth of the domestic private sector banks.

5.1.6 Monetary Indicators

The performance of the monetary sector during FY05 can further be explored by looking at the trends of certain monetary indicators during the year;

Monetary depth

The *M2 to GDP* ratio, that gauges the monetary depth in the economy broadly, showed an uptrend during FY05 (see **Figure 5.19**). More importantly, when this indicator is decomposed into *deposits to GDP* and *currency to GDP* ratios, this suggests an increase in the contribution of the banking system in financing on-going economic activities.

Liquidity preference

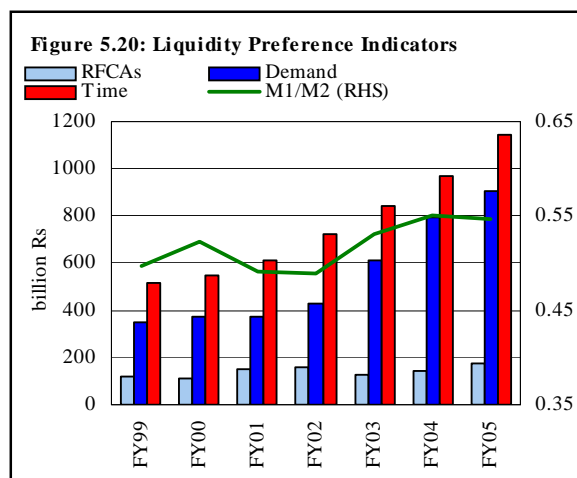
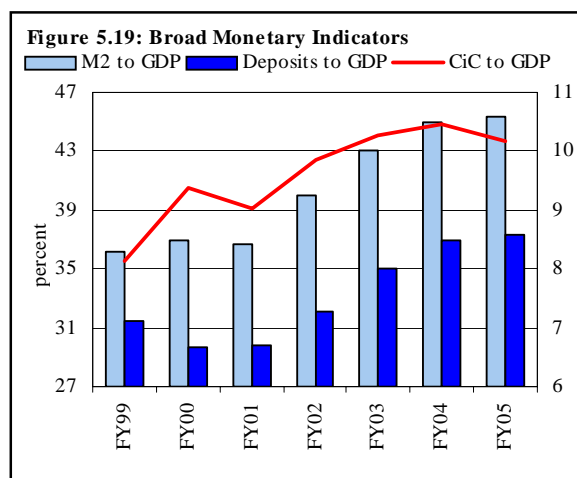
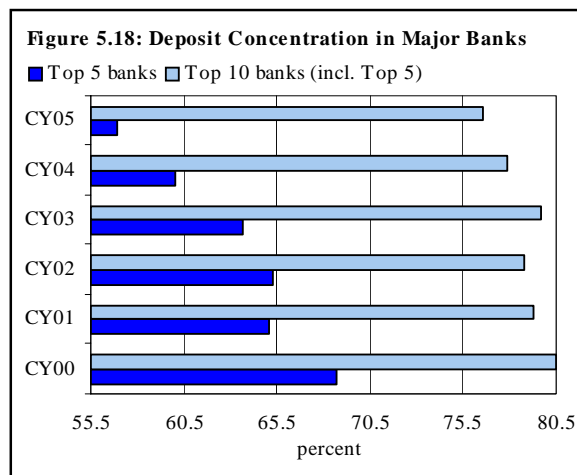
The *M1 to M2* ratio, a crude indicator of liquidity preference in the economy, has declined during FY05 reflecting a smaller growth in demand deposits compared with that in time deposits. In fact, the conversion of FCAs to demand deposits has been the major factor behind rising M1 to M2 ratio during FY03, and this continued during most of H1-FY04 as well. However, as the conversion ended (and reversed), the growth in demand deposits has slowed down from 30.1 percent in FY04 to 20.7 percent in FY05 (see **Figure 5.20**).

The trend in the *M1 to M2* ratio is further explained by the *currency to deposit* ratio that has also been declining for the last four years (see **Figure 5.21**). This is attributable to two reasons; (1) the increased use of ‘plastic’ money as a medium of exchange.

Consequently, instead of withdrawing a lump sum amount of deposited money to minimize visits to banks, individuals can either skip any cash withdrawals by using debit cards or can make use of the easily accessible ATM machines to withdraw only the required funds; and (2) increase in number of private bank branches both in urban and rural areas.

Pace of money creation

The continuous decline in the *currency to deposit* ratio has also helped in increasing the pace of money creation in preceding five years. The money multiplier has remained higher on average, at 3.12 during FY05, compared with FY04 when it was 3.01 on average (see **Figure 5.22**). Monthly data, however shows, that it was only after January 2005 that the multiplier actually increased. This

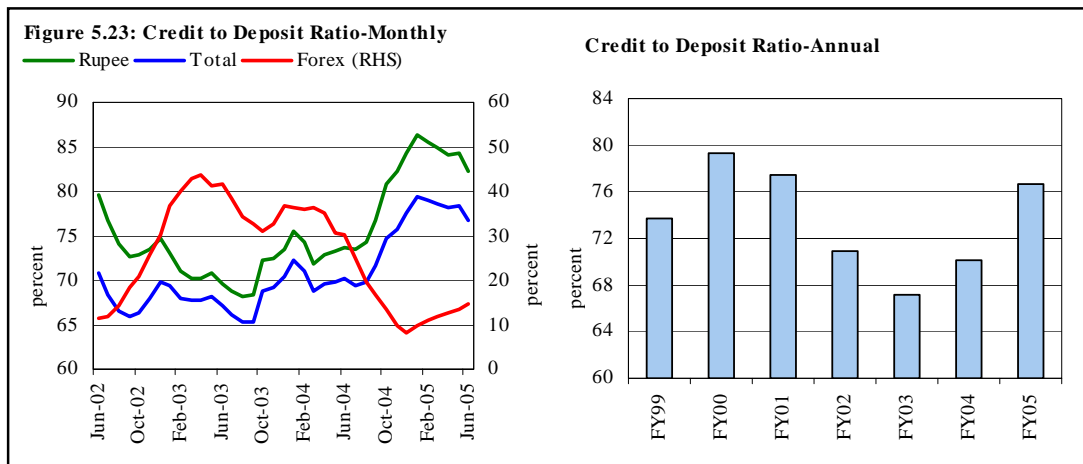
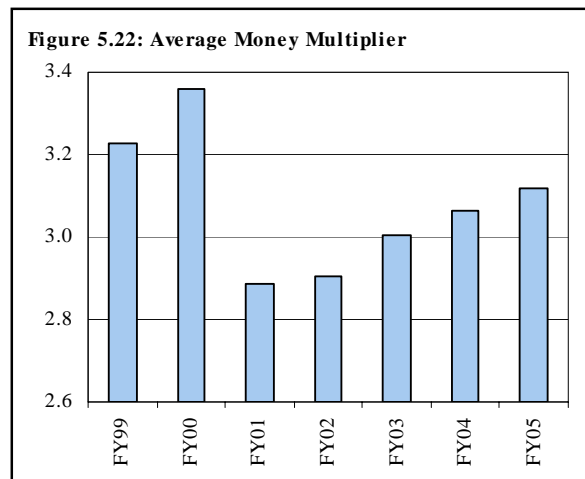
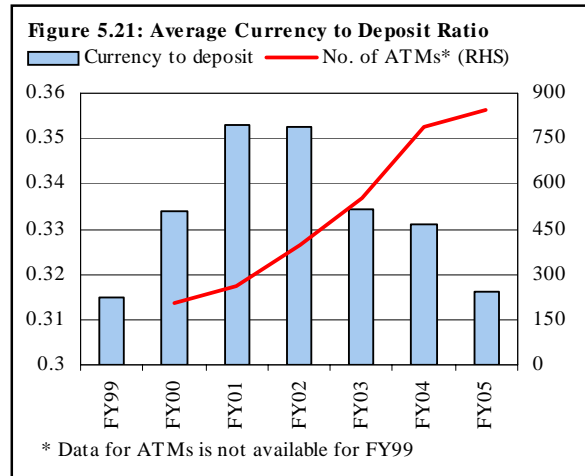


was due to the fact that January onwards the composition of government borrowing had changed drastically from SBP to scheduled banks, as mentioned earlier.

It should be noted that as the SBP tightening continued and banks' excess reserves depleted, money multiplier might decline slightly in months to come. This is because banks will then see a true liquidity constraint, which might impact the lending activities, resulting in a low multiplier.

Credit to deposit ratio

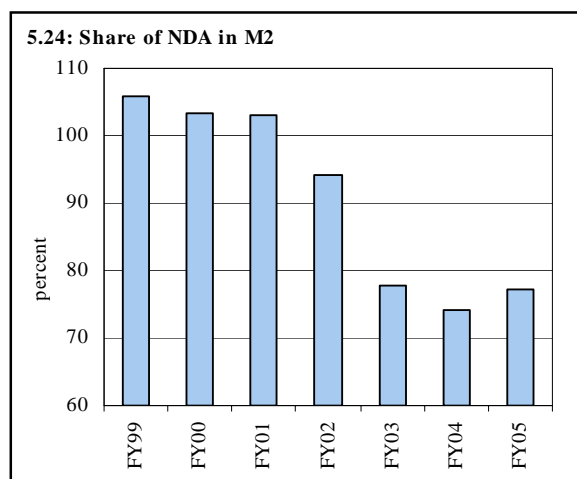
The *credit to deposit* ratio shows both the liquidity comfort with the banks and also the extent of domestic banking system involved in core banking activities, as it indicates the extent to which the deposit base of banks is used for credit extension. In fact, this ratio also explains the pace of multiple deposit creation process in the economy. The higher the *credit to deposit* ratio in the economy, the higher would be the impact on customers' deposits, and the higher would be the growth in money supply. In this context, it is quite encouraging to see that the credit to deposit ratio has risen from end FY98 level of 68.3 percent to 76.7 percent at end FY05. Monthly data for FY05 shows that the *credit to deposit* ratio has kept on increasing throughout FY05 till February 2005, and then started declining (see **Figure 5.23**). This decline was due to both, a slow down in credit growth and a sharp uptrend in deposit mobilization.



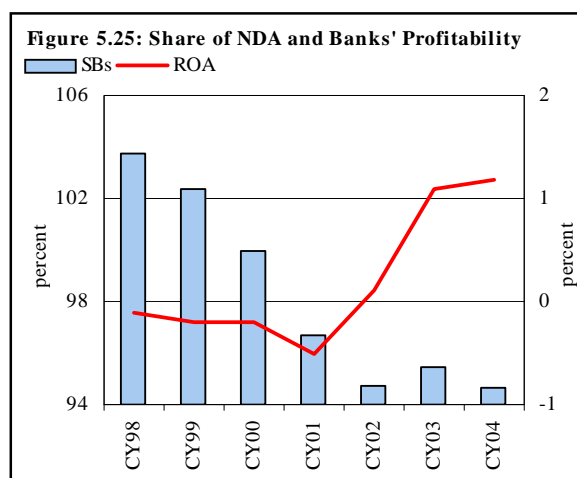
Further analysis reveals that the foreign currency credit to deposit ratio also declined during FY05 from 30.2 at end June 2004 to just 14.51 at end June 2005. As mentioned in **Section 5.1.1**, this was mainly attributable to banks' increased placement of FE-25 deposits with banks outside Pakistan instead of financing to the domestic trade related activities during Jul-Oct FY05. Later, as the exchange rate stabilized, domestic financing started to increase slightly and so did the currency to deposit ratio.

Composition of banking sector's assets

Unlike the preceding three years, the share of NDA in money stock (on average) has increased during FY05 depicting the replacement of foreign assets of the banking sector with domestic assets (see **Figure 5.24**). This is due to both (1) a strong growth in domestic credit expansion in recent years and a sharp growth in government borrowing from the banking sector; and (2) a slow growth in foreign assets mainly due to the depletion of foreign assets of SBP.



The rise in domestic assets has increased the profitability of the banking sector as domestic assets earn higher returns.²² This can be seen in **Figure 5.25**, where the profitability of banks is declining from CY98 to CY00 when the average share of NDA in total banks' assets is also declining. In CY02, however, the share of NDA declined, yet banks' return on assets increased sharply. This was mainly due to the sharp rise in capital gains on the sale of securities. In CY03, the share of NDA increased which led to a further improvement in banks' ROA.



5.2 Money Market²³

The behavior of the money market in FY05 is reflective of SBP's changing view on the balance of risk between the two conflicting objectives; fostering growth and price stability. Up to H1FY01 when the risk of significant rise in the inflation was relatively low, SBP opted for an accommodative stance.

It increased the interest rates gradually and left ample liquidity to enable banks to freely extend credit to the private sector. However, as controlling inflation took priority in H2FY05, SBP not only increased the interest rate sharply but also squeezed the liquidity out of the market. To strengthen its money market management, SBP took a number of steps in the latter half of FY05, including the introduction of shorter tenor OMOs and simultaneous auctions of 3, 6, and 12-month T-bills.

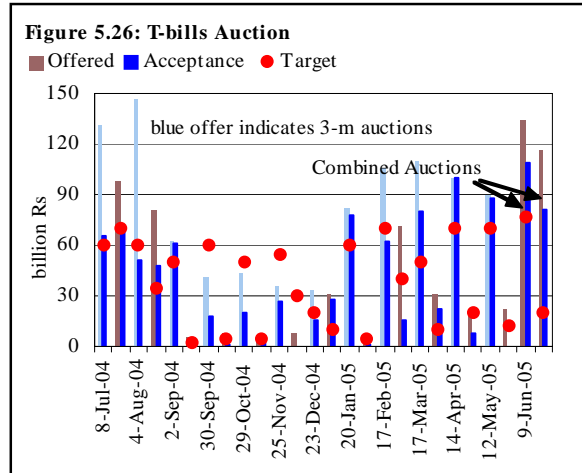
²² Given the stable exchange rates and lower international interest rates during this period.

²³ For a detailed discussion on the Money Market, see Financial Markets Review 2004-2005.

5.2.1 Primary Market

Treasury Bills Auction

The T-bill auction outcomes during FY05 reflect typical bank behavior in a rising interest rate scenario. Expecting future interest rate hike, the concentration of the amounts offered by the banks was in the 3-month paper. Banks offered Rs 1011.7 billion in 3-month paper, against combined 6 and 12-month offers of Rs 697.6 billion. It was only when 6-m yields increased substantially (reaching 7.8 percent) that the banks started bidding higher amounts in the longer tenors. SBP, on its part, also announced lower targets for 6-month paper and accepted marginal amounts to keep the interest rates on the benchmark rate from rising sharply (see **Figure 5.26**). SBP accepted 71.6 percent of the offered amount in the 3-month paper as against only 45.8 percent in the 6-month.



A significant development in FY05 with regard to treasury bills auction was the reintroduction of the simultaneous auction of all three-tenor papers, this will help SBP in signaling the desired term structure of the short-term interest rates.

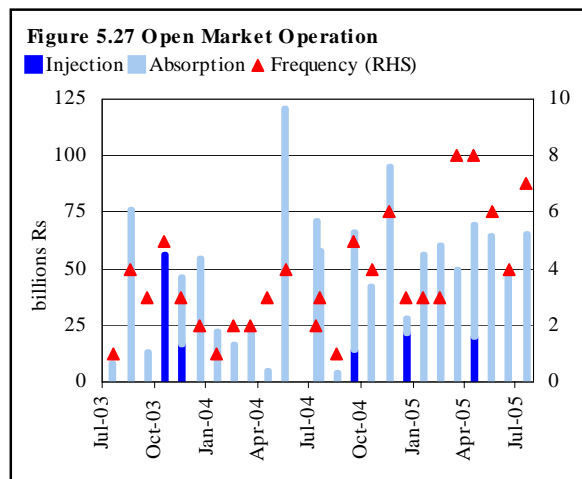
Pakistan Investment Bonds (PIBs)

Government had scheduled four auctions of 3 billion each for FY05; however, due to mismatches in the interest rate expectations of the market and the government and ample availability of funds from other source (bank and external), the government chose to scrap three auctions and did not conduct the fourth one. As yield on PIB serves as benchmark for long-term interest rates, absence of the PIB auctions had significant negative implications for the secondary market.

5.2.2 Secondary Market

Open Market Operations (OMOs)

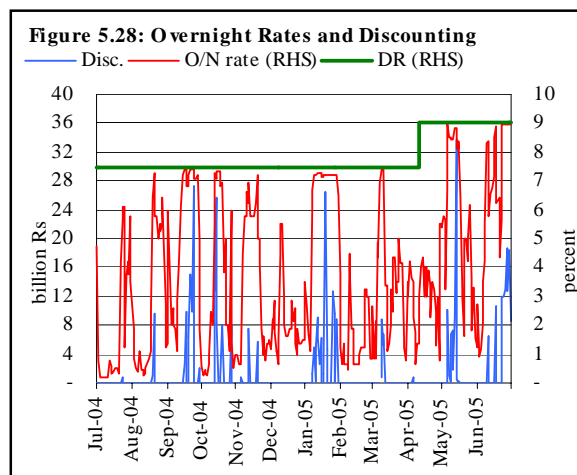
SBP's open market operations in FY05 were predominantly geared towards mopping up liquidity in the market (see **Figure 5.27**). Out of fifty OMOs in FY05, only three were for injections. The direction and volumes of the OMOs demonstrate SBP's changing priorities. The average number of OMOs conducted per month, for the first nine months of FY05 was 3.3 while that for the remaining 3-months it averaged 7.3. Smaller numbers of OMOs in the initial nine months were aimed to signal SBP's accommodative monetary stance, whilst the increased number of OMOs post April 2005, indicate renewed urgency on part of SBP to improve the transmission of its policy rates to overall lending rates. SBP not only conducted significantly more OMOs in



the last three months of FY05, it also allowed shorter period OMOs to ensure lesser volatility. In aggregate terms, SBP mopped up Rs 611.2 billion in FY05, against Rs 410.7 billion in FY04.

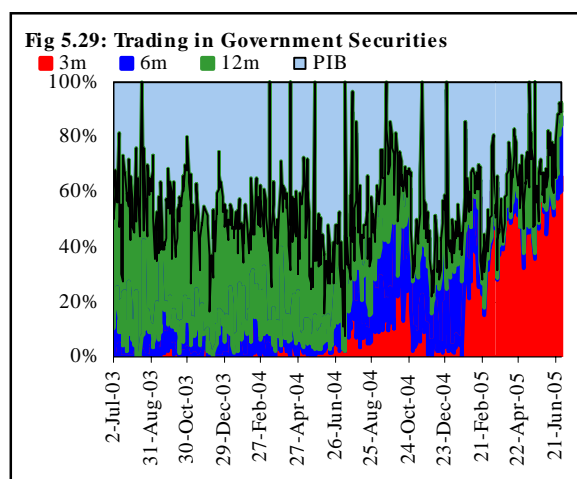
Overnight Rates

FY05 witnessed considerable volatility in the inter-bank rate (see **Figure 5.28**). High credit demand without corresponding strong deposit growth, SBP's lower acceptance in T-bills auctions and insufficient and rigid tenor OMOs, all contributed to the volatility in the money market. However, with the introduction of smaller tenor, and more frequent OMOs in the latter half of the FY05 the volatility in the inter bank market was significantly reduced; this is evident from the decline in the coefficient of variation of the overnight rates from 0.8 in H1FY05 to 0.5 in H2FY05.



PIBs

In FY05, the secondary market activities in PIBs decreased substantially and were replaced to a large extent by the 3-month t-bills (see **Figure 5.29**). The reason for this is two fold; for one, corporates demand was low amidst expectations of a further rise in secondary market yield of PIBs; and secondly, the banks feared capital losses in a rising interest rate scenario, and shifted most of their holdings of PIB to the held to maturity category. Thus, the stock of PIBs, available for trading, depleted as no new auctions were conducted.



The significant impact of absence of fresh issues of the PIB in FY05 can be seen on the 10-year secondary market PIB rate, which serves as the benchmark for the long-term investment decisions. The current 10-years rates quoted in the market are only indicative, as no paper of 10-year maturity exists in the market. This raises concerns for development of the longer end of the yield curve and strengthening of the secondary market.

5.3 Capital Markets²⁴

5.3.1 Introduction

FY05 turned out to be a very eventful year for the capital markets of the country. The spectacular rise in all the stock markets which lasted till March-FY05 was largely driven by growing confidence and enthusiasm of the market players on the performance of the economy as well as on improvements in the fundamentals of the stocks traded. However, towards the end of this extended rally, the rise was more and more due to speculative positions and a correction looked inevitable. Thus, as highly leveraged positions of the buyers and rather limited supply of COT financing restrained the continued

²⁴ For a detailed discussion on the *Capital Market*, see *Financial Markets Review 2004-2005*.

upward movement of the index post March 05, the KSE-100 index suffered a massive 2,706 point correction to surrender a significant portion of its FY05 gains and reducing the overall growth to 41.1 percent in FY05 (see **Figure 5.30**). However, even this lower rise was enough to rank the local bourses amongst the best performing markets of the period.

The other stock exchanges of the country following the events at KSE, also witnessed an abrupt decline in their indices. The index of Lahore Stock Exchange that grew by 101 percent in pre-correction period managed to post only 33 percent growth by the end of FY05. Likewise, the Islamabad Stock Exchange that witnessed a 28 percent growth till mid March, ended up posting a decline of 2.7 percent in its benchmark by the year end FY05 (see **Table 5.5**).

Capital Markets in FY05 also witnessed a significant rise in the listings of new debt instruments, especially by banks in the corporate debt market that witnessed a sharp rise in the size of the market that remained relatively subdued in FY04. The renewed interest in corporate debt market is the upshot of SBP's recent regulation that directs the commercial banks to enhance their paid-up capital and to improve capital adequacy requirements

5.3.2 Developments in COT Market

The COT market remained very active in FY05. It registered an overall investment of Rs 40.3 billion on 18th Feb FY05 despite the fact that the SECP announced its abolition plan in September 2004. Initially, the COT market saw low turnover in post announcement period but after the start of the market momentum in November 2004, the COT investment also picked up in order to meet rising demand for funds from the investors (see **Figure 5.31**).

5.3.3 New Listings

FY05 witnessed 18 new public offerings at the KSE, increasing its paid-up capital by Rs 32.3 billion, and adding substantially to the market capitalization. While the additional capitalization during FY05 was lower than the Rs 53.4 billion raised during FY04, the major difference between the two years was due to a single issue – the exceptionally large offering of Pakistan's oil exploration giant OGDC that alone contributed Rs 43 billion to listed capital in the earlier year. The most significant offering during FY05 was that of Bank Alfalah, Pakistan Petroleum Limited (PPL), and KAPCO.

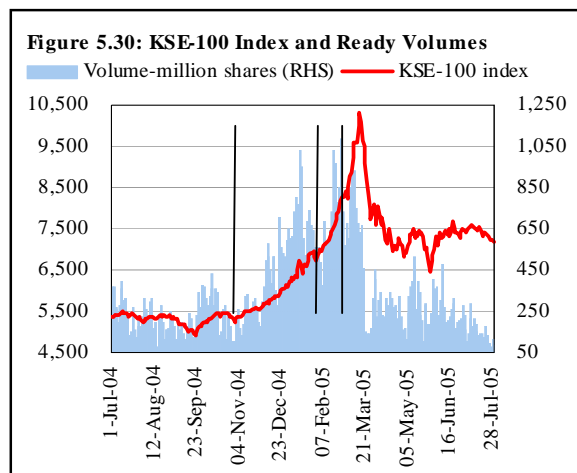


Table 5.5: Overview of Capital Market

Equities (KSE)		FY03	FY04	FY05
Listed companies	numbers	701	666	659
Listed capital	billion Rs	313	377	438.5
Market capitalization-MC	billion Rs	951	1,421.5	2,068
MC as % of GDP	In percent	19.7	26.1	33.7
New listed companies	numbers	6	13	18
New listed capital	billion Rs	4.6	53.4	32.335
Debt instruments-all listed				
New debt instruments listed	numbers	15	6	12
Amount	billion Rs	6.2	3.3	15.5
KSE-100 Index				
High		4,606.3	5,620.4	10303.1
Low		2,356.5	3,430.8	4890.2
Turnover (KSE)				
Avg vol per day (Shares)	billion	0.31	0.39	0.35
Avg. total value	billion Rs	9.13	19.78	7167.58
Lahore stock exchange				
LSE-101 index		2,034.5	2,828.3	3762.3
LSE market capitalization	billion Rs	684.8	1,315.9	1995.3
Islamabad stock Exchange				
ISE-25 index		8,210.1	11,894.3	11,571.4
ISE market capitalization	billion Rs	541.3	1106.2	997.6

5.3.4 Corporate Debt Market

The corporate debt market saw a growth of listings of new debt instruments, reflecting in part, expectations of a rise in interest rates. The period FY05 saw 12 listed debt instruments worth approximately Rs 15.5 billion, in contrast to FY04, which witnessed a total of seven listings worth Rs 3.3 billion.

Out of 12 new listings in FY05, seven listings were launched by the commercial banks, two by other financial institutions, two by oil and gas companies and one by telecommunication company. The issues by banks were aimed principally to increase their Tier II capital to meet the higher capital adequacy ratios required under the SBP prudential regulations. Going forward, other banks are also likely issue TFCs for this purpose.

