5 Money and Banking

5.1 Monetary Policy

SBP continued to maintain a tight monetary policy during FY07. This was desirable to further moderate excess aggregate demand pressures in the economy which were still present despite continued monetary tightening since September 2004. Towards the end of FY06, the evidence of strong demand pressures was particularly noticeable in: (1) high growth in the credit to private sector, and (2) robust growth in country's import that resulted in sharp widening of the current account deficit.[1] Furthermore, the Federal Budget for FY07 had envisaged an expansionary fiscal policy which had potential to add further to demand pressures. More importantly, the presence of excessive demand pressures was already obvious in terms of high and volatile inflation through most of FY06.

Considering that low inflation provides the best conducive environment for growth and investment, the inflation target for FY07 was set 6.5 percent compared to a high inflation of 7.9 percent in FY06. However, the monetary management during FY07 was complicated by the dual mandate of maintaining price stability and economic growth, that required SBP to avoid significant slippage in targeted real GDP growth for FY07 that could have occurred due to excessive tightening.

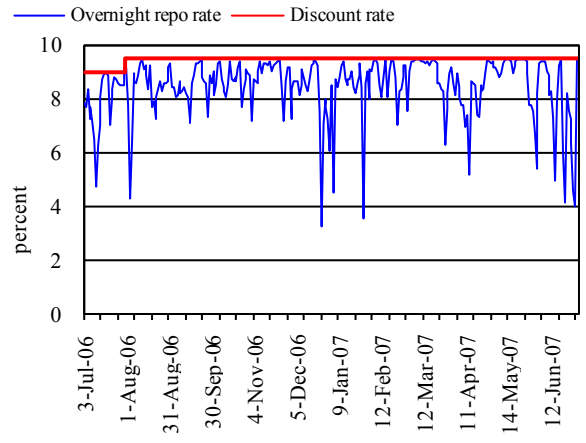
Table 5.1: Key Macro Targets and Performance
growth in percent

	FY06		FY07	
	Targets	Actual	Targets	Provisional Estimates
GDP	7.0	6.6	7.0	7.0
Inflation	8.0	7.9	6.5	7.8
M2	12.8	15.1	13.5	19.3

In this backdrop, the monetary policy framework for FY07 envisaged a further slowdown in monetary expansion (M2) to 13.5 percent from 15.1 percent growth realized in FY06. Given the envisaged nominal GDP growth of 14.0 percent, the M2 target of 13.5 percent during FY07 was set especially to avoid the creation of monetary overhang. Simultaneously, as export growth continued to weaken, SBP took measures to partially shelter strategic sectors (textiles, and exports).

In order to achieve its target, SBP first raised the reserve requirements for banks on July 22, 2006 and then increased its policy rate by 50 basis points to 9.5 percent on July 29, 2006.[2] At the same time, SBP also continued to drain excess liquidity from the inter-bank market and maintained the overnight rates persistently close to the discount rate through most of FY07 (see **Figure 5.1**).[3] In addition, the SBP provided support to the exporters in the form of reducing rates on export finance schemes (EFS), and a debt-swap facility that substantially reduced the cost of fixed investment loans acquired in recent years.

Figure 5.1: Liquidity Conditions in the Inter -bank Market



[1] Current account deficit had widened to US $ 4.9 billion by end-FY06.
[2] It may be pointed out that SBP had earlier raised its policy rate by 150 basis points to 9.0 percent on April 11, 2005.
[3] During FY07, SBP mopped up Rs 936.0 billion through OMOs compared to Rs 636.2 billion in the preceding year. Furthermore, the co-efficient of variation of overnight rates during FY07 has declined to 0.1 percent compared to 0.2 percent during FY06.

The refinance facility by the SBP posed difficulties in liquidity management and partly offset the impact of tight monetary policy on aggregate demand. More disappointingly, the SBP concessional financing did not either lead to a higher export growth nor new investments in the textile sector.

SBP monetary policy proved effective in considerably moderating demand pressures in some sectors of the economy as reflected in a visible slowdown in import demand and private sector credit during FY07. The reduction in demand pressures was also reflected in the continued downtrend in core inflation (NFNE).[4] The monetary tightening was clearly not excessive, given that the real GDP growth during FY07 comfortably achieved its target.

Tight liquidity conditions in the inter-bank market probably helped in reducing speculative and unproductive demand for credit. In this perspective, it is encouraging that the demand for fixed investment loans during FY07 has accelerated. Even a part of the slowdown visible in working capital loans appears short-lived (as a few structural factors limited the demand and supply of these loans during the year). More evidently, the personal loans slowed down significantly during FY07 (see **Figure 5.3**).

Unfortunately, the impact of the slowdown in demand pressures in the economy did not translate into a desirable decline in overall CPI inflation during FY07 (see **Figure 5.4**). Average CPI inflation for the year was 1.3 percentage points higher than the annual target, mainly because the gains from a deceleration in non-food inflation were largely offset by an unexpected strength in food inflation, particularly during H2-FY07. To put this in perspective, had food inflation in FY07 remained at the average level observed in FY06 (i.e., 6.9 percent), CPI inflation would have remained below the 6.5 percent target for the year.

Figure 5.2: Volatility in Prices as Measured by Standard Deviation of YoY Growth Across Months

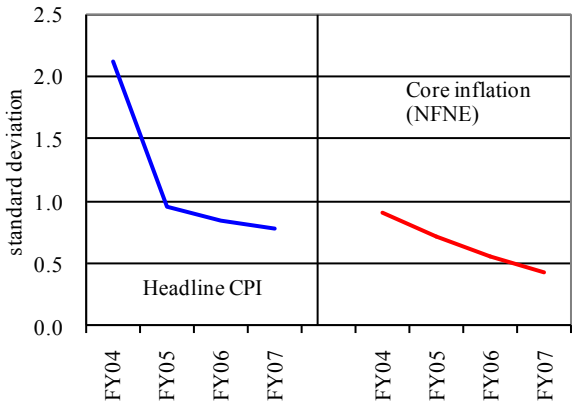


Figure 5.3: Contribution to Growth in Private Sector Loans

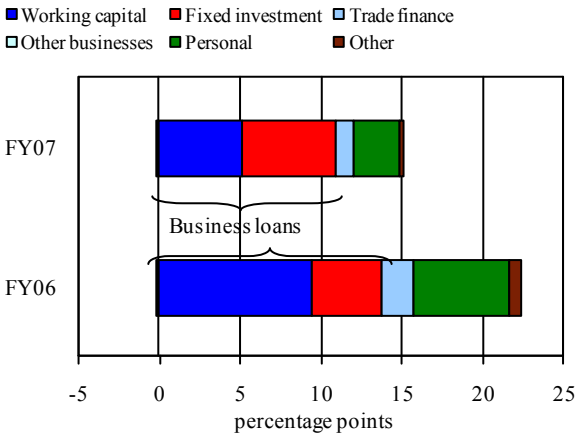
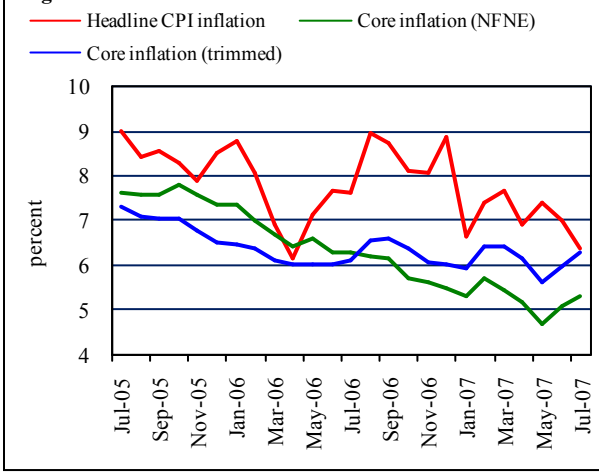


Figure 5.4: Trend in Inflation



[4] Although the inflation during FY06 and FY07 has remained almost unchanged, the volatility in FY07 across months was visibly lower than in FY06. This trend is observable in both the headline CPI as well as core inflation (see **Figure 5.2**).

In this regard, empirical evidence indicates that it is inappropriate to target food inflation through monetary measures, which typically have longer term (and broader) impacts, as the food inflation is typically volatile (short-lived). On the other hand, administrative actions and policies targeting market structure issues (including collusive behavior by producers and distributors) are typically more effective in containing food inflation. Nonetheless, monetary policy does have an important role by addressing inflationary expectations and preventing the seepage of pressures from rising food prices into the broader economy (see **Box 5.1**).[5]

Box 5.1: What is the Second Round Impact of Food Inflation?

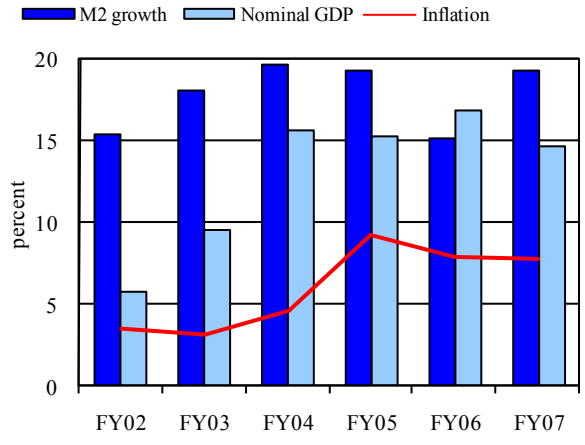
The food inflation in Pakistan has remained high throughout FY07 due to a number of supply shocks in commodities such as wheat, sugar, vegetables, etc. This stubbornly high food inflation has raised the suspicion that impact of the supply shocks may bring about a permanent increase in underlying inflationary pressures – a phenomenon also known as *second round effect*.

The transmission of second round impact on inflation generally takes place through expectation channel, whereby a temporary supply shock brings about a permanent rise in inflation expectations, which in turn is reflected in higher wages. The build-up of wage pressures feeds back into future inflation and ultimately generates a wage-price spiral. Thus, the second round effects of a supply shock could lead to further increases in inflation and eventually require a monetary policy response.

It is evident that the presence of second round effects makes it difficult to appropriately assess the impact of supply shocks on the economy. It is however acknowledged that the likelihood of a strong second round impact is higher in countries (1) which have experienced episodes of high inflation, and (2) where the monetary policy regime is less credible and inflation expectations are not well anchored with macro economic fundamentals. In such cases, economic agents will expect inflation to remain higher following the supply shock, and thus demand larger increase in wages.

However, the monetary policy thus far has clearly did not align the inflation expectations as per the desired objective due to several problems in monetary policy conduct.

Figure 5.5: Money, GDP Growth and Inflation



The first problem for monetary policy during FY07 was the continuous expansion of fiscal policy and the resultant demand pressures that partly diluted the impact of tight monetary stance on inflation expectations.[6] Moreover, the government borrowings from the banking system as well as external sector did add excessively to money supply during FY07.

This is evident from an abrupt increase in M2 during June 2007 (following the realization of budgetary receipts from external sources) which resulted in cumulative M2 growth during FY07exceeding not only the annual target by 5.8 percentage points to reach 19.3 percent, but also to nominal GDP growth of 14.7 percent during the year(see **Figure 5.5**). To put this in perspective, M2 growth during Jul-May FY07 was 14.1 percent which was slightly less than the nominal GDP growth of 14.7 percent for the year. Nonetheless, since the acceleration in M2 growth was concentrated in the last month of FY07, it probably had only a weak contribution to inflation in FY07, but is more

[5] These "second round" impacts include the direct costs (e.g., when rising food commodity prices lead to high productions costs for processed goods, milk, ethanol, etc.) as well as indirect costs (e.g., high food inflation leads to pressure to increase in wages). The role of monetary policy becomes even more important in cases where the high food inflation persists for an extended period, as has been the case through FY07 and which is likely to continue into FY08.

[6] Such as receipts from Eurobond and GDR issues, US Aid inflows, multilateral loans, receipts against logistics support etc.

likely to impact FY08 inflation, unless corrected by policy (see **Figure 5.6**).[7]

The second issue lies in designing the monetary policy framework. Specifically, a large part of the slippage in M2 target during FY07 stemmed from government borrowings, particularly from the external sector, although the actual budgetary financing only marginally exceeded the levels envisaged in the Federal Budget for FY07. This suggests that the magnitude of slippage in M2 growth from its target would have been substantially lower had the budgetary finance from the external sector been incorporated more accurately in the monetary policy framework for FY07 (see **Table 5.2**).[8] Following from the fact that the central bank's credibility in meeting the prescribed targets is essential in containing inflation expectations, the slippages in M2 growth during FY07 will be a challenge to subsequent disinflation measures.

The third issue is related with the volatility in reserve money growth. During FY07, the abrupt pattern of government borrowings from the SBP has been one of the major factors in increasing the volatility in reserve money growth across months (see **Figure 5.7**). Since reserve money serves as operational target to achieve the M2 growth, its volatile growth not only creates difficulties in monetary policy conduct but may potentially send undesirable signals to the market participants. In addition, the accommodation provided by the SBP in the form of debt-swap to textile sector partially offset the SBP measures to tighten liquidity from the inter-bank market.

Therefore, containing the inflation expectations requires measures at the end of both the government and the Central Bank. While the burden of ensuring the adequate food supply and other administrative measures to control the level and volatility in

Figure 5.6: Monthly Composition of Money Supply (FY07)

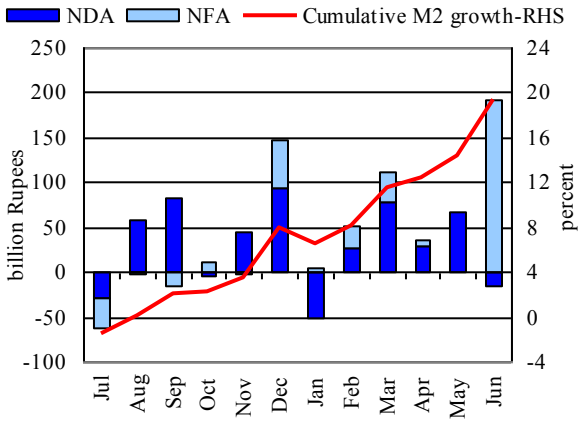
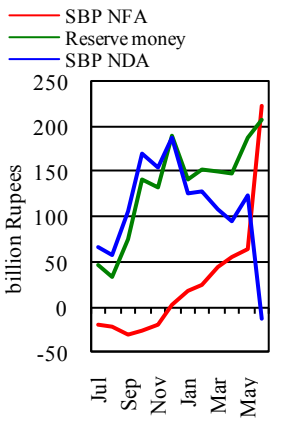


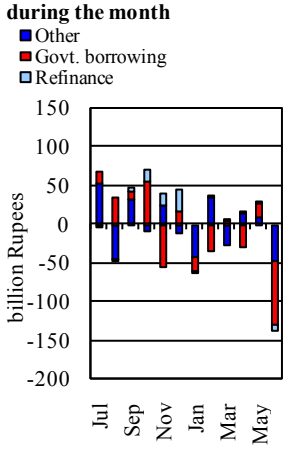
Table 5.2: Composition of M2 Growth by Sectors
percent

	Contribution in M2 growth			FY07 Slippage from target		
	FY06	FY07	*Change*	Target	Actual	*Slippage*
NFA-Govt.	5.0	5.9	0.8	-	-	-
NFA-non-govt.	-2.6	2.2	4.7	-	-	-
NFA	**2.5**	**8.0**	**5.6**	**1.4**	**38.7**	**37.2**
NDA Govt.	2.9	2.7	-0.2	15.4	13.4	-2.0
NDA non-govt.	9.7	8.5	-1.1	17.0	15.6	-1.4
NDA	**12.6**	**11.3**	**-1.4**	**16.7**	**14.2**	**-2.5**
M2	**15.1**	**19.3**	**4.2**	**13.5**	**19.3**	**5.8**

Figure 5.7: Reserve Money Flows (cumulative)



Composition of SBP NDA during the month



[7] It is important to mention here that the sharp increase in SBP NFA during June 2007 did not cause a proportional rise in reserve money. This was due to both, (1) government retirement of SBP debt; and (2) SBP sterilization measures. In specific terms, the impact of increase in SBP NFA (of Rs 159.1 billion) during June 2007 on reserve money growth was partially offset through government retirements of Rs 80.6 billion to SBP and partially through SBP repo sale of government securities worth Rs 61.8 billion during the month.

[8] The credit plan for FY07 envisaged an increase of Rs 9.8 billion only in NFA of the banking system. However, the actual NFA inflows during FY07 were Rs 285.5 billion.

food prices lies principally on the government, the task of containing inflation expectations, however, necessitates addressing the sources of slippages in M2 from its targeted growth.

In order to address this, the SBP introduced qualitative improvement in the monetary policy framework for FY08 to address two key sources of reserve money growth, i.e., government borrowings from the Central Bank and SBP support under EFS (see **Box 5.2**). Specifically, to contain the former, the SBP has recommended the government to continue retire the SBP debt in FY08, adopt a more balanced domestic debt strategy whereby budget is financed from long term financing sources, and most importantly, recommended quarterly ceilings on budgetary borrowings from the Central Bank.

In sum, though the containment of M2 growth within the target would remain a challenge during FY08 especially in the wake of potential foreign exchange inflows and budgetary borrowings, the SBP will continue sterilizing their liquidity impact. Thus, the primary challenge that remains for FY08 is the inflation persistence on the back of high oil and food prices that may hinder the SBP efforts in achieving 6.5 inflation target set for the year. Indeed the SBP is determined to achieve this target and will actively use the available policy instruments to bring down inflation to its target level.

Key measures in monetary policy framework for FY08

The monetary policy actions were complemented by other measures to reduce pressures on reserve money growth. Specifically, the SBP has started gradually reducing banks' reliance on refinance facilities.[9] Thus, on one hand the government is suggested to retire to the SBP Rs 63.2 billion in FY08, and on the other, banks are required to reduce total outstanding refinance at end-June 2007 by 30 percent during FY08.

In addition to limiting the growth of domestic components of reserve money, the SBP is equally conscious of the potential impact of foreign exchange inflows on reserve money. While a part of these flows remains exogenous to the monetary policy, the SBP will remain mindful of the pressures these flows can create and will continue sterilizing their impact on reserve money. In this regard, the major challenge to the SBP in continuing sterilization was to offer desirable returns in OMOs while simultaneously preserving the rationality of the yield curve. Therefore, the increase in discount rate from 9.5 percent to 10.0 percent effective from August 01, 2007 is expected to support sterilization measures if required in FY08.

In order to improve the effectiveness of monetary policy and avoid ambiguities in sending out policy signals, the SBP has abolished the Annual Credit Plan (ACP). This was a long due measure, following the removal of credit ceilings which made credit plan redundant. Since broad money (M2) was the *only* intermediate target in the monetary policy framework, SBP continued to prescribe targets for NFA, NDA, government borrowings and private sector credit. It is expected that the abolishment of ACP will help removing the uncertainties emanating from multiple targets of monetary aggregates (see **Box 5.3**).

Box 5.2: Controlling the Growth in Reserve Money at the Core of the New Monetary Policy Framework

To achieve the desirable growth in aggregate money supply, SBP uses the reserve money (RM) as an operational instrument. The desirable path of reserve money growth is obtained by simply dividing the desired money stock with the estimated money multiplier. During the course of the year, the SBP monitors the actual reserve money growth and make adjustments through market interventions whenever RM growth deviates from the desirable path. For instance, whenever the actual RM falls short of (increases beyond) the target, the SBP may conduct OMOs to inject (absorb) liquidity in the system by replenishing (debiting) banks' reserves and thus increase (reduce) the RM. As such, the SBP conduct of monetary policy revolves around the changes in reserve money through which it achieves its targeted monetary growth. Therefore, it is important to maintain both the level as well as fluctuations in the reserve money.

[9] See Monetary Policy Statement July-December 2007.

This said, there exists a few factors that have put a serious question mark on the exogeneity of changes in the reserve money. In specific terms, the SBP's decision to keep reserve money at a certain level is not dependent solely upon its desired monetary policy but appears to be determined by the factors outside the purview of monetary policy. Among these, the major factors include; (1) exchange rate policy; (2) government spending and the inter-bank market's desired level of interest rates; and (3) subsidized export finance. It is important to analyze each of these factors individually.

The influence of exchange rate policy on reserve money growth channels through the 'impossible trinity' phenomenon that states that it is hard to achieve liberal capital flows, fixed exchange rate and independent monetary policy, together. In simple terms, when the inter-bank market is flooded with the foreign capital inflows, the SBP intervenes to mop up additional foreign exchange to ensure the stability in exchange rate. However, such interventions lead to a rise in NFA of the SBP and thus the reserve money. Second, the government borrowings from the SBP and the external budgetary financing also play an important role in reserve money growth. While the external budgetary finance is already taken into account while projecting the reserve money growth path; the former is determined by commercial banks' interest in investing in government papers at a certain rate. As such, whenever the banks are reluctant to fund budgetary requirements, SBP has to directly fund the budgetary requirements. Finally, the demand for subsidized export credit is a function of a number of factors including, the overall export demand from the economy, level of subsidy determined by the market rates, demand for alternative modes of trade finance, i.e., FE-25 loans that in turn depends upon interest rate differential as well as the exchange rate.

As a result, the SBP control on reserve money limits to responding to the changes that are caused by above-mentioned factors. In other words, the SBP can only *sterilize* the impact of changes in RM. However, sterilization does not only entail cost to the SBP but the scope of sterilization depends upon other macroeconomic variables. For instance, the sterilization process that the SBP followed post 9/11 developments had a wider scope as the interest rates were falling. In specific terms, the government borrowed heavily from commercial banks in T-bill auctions and retired the SBP debt. The room for sterilization was provided by the falling interest rate scenario wherein the government was replacing its high cost debt of SBP through low cost debt from commercial banks. However, in a rising interest rate scenario, the government may not have incentive to replace its low cost debt with high cost borrowing as this would raise the debt servicing burden.

Another important factor that restricts SBP ability to continue sterilization is the potential impact of sterilization on interest rates. For instance, if SBP tends to offload its stock of government securities through open market operations, it will require an increase in interest rates. Although in recent months the banks have been investing heavily in government papers but this owes entirely to a relatively low advance to deposit ratio caused by a low credit demand from the private sector. Once the period of seasonal take off starts, banks will reallocate their assets to private sector to earn better yields on their assets especially given the higher-than-required capital adequacy ratio and asset quality.

Therefore, to attain a better control over the reserve money and its fluctuations, a structural change was required in the monetary policy framework to improve SBP's influence over inflation and inflationary expectations. As a result, the new monetary policy framework has been designed in a way which improves the SBP control of reserve money. Major changes include placing quarterly restrictions in government borrowings directly from SBP and increased emphasis on long term borrowing from the inter-bank market. In addition, the first step in phasing out subsidized refinancing in various sectors will be to reduce SBP's share in the volume of refinance from 100 percent to 70 percent. In the interim period, however, the increase in discount rate by 50 basis points will increase SBP's ability to sterilize the increase in reserve money through market interventions. All these measures are expected to bring in a better control of SBP on the changes in reserve money that eventually will be helpful in achieving the desirable growth in aggregate money supply and thus inflation.

Box 5.3: Rationale Behind the Abandonment of Credit Plan

The exercise of preparing Credit Plan was initiated in 1973 soon after the institutionalization of National Credit Consultative Council (NCCC). Since then, the preparation of Credit Plan had become a regular annual exercise and continued to become so even after the abolishment of bank-wise sectoral credit ceilings (and other modes of financial repression) as well as phasing out of the IMF programs. The rationale behind the abandonment of this exercise is two-fold:

First, after the abolishment of credit ceilings, the entire exercise of preparing credit plan became redundant since the intermediate target for the SBP monetary policy was the aggregate money supply (M2) alone. The individual M2 components reported in Credit Plan used to provide crude estimates of the causative factors of targeted M2 which were helpful only to foretell where the possible slippages may emerge from. Second rationale emanated from disseminating the Credit Plan to the stakeholders and the resultant unnecessary expectations associated with the growth in individual components of money supply. In specific terms, large deviations of monetary aggregates (other than M2) from the initial estimates signal strong sentiments in the market even though the SBP does not actually '*pursue*' those estimates. As a result, not only the performance benchmark for SBP broadens needlessly and heightens the issue of SBP credibility, but the market expectations remain consistently misaligned with actual policy measures that impede the smooth transmission of monetary policy to desired objectives.

For instance, it happened on a few occasions that the government external financing increased substantially (not envisaged in the Credit Plan) resulting in a sudden unexpected rise in NFA of the banking system. The market immediately incorporated the rise in NFA in their policy assessments, ignoring the likely retirement of government's domestic bank borrowings. Similarly, lower-than-targeted growth of credit to private sector often leads market to expect an accommodative monetary stance by the SBP irrespective of excessive aggregate money supply growth. The SBP, however, remains concerned solely with the aggregate money supply growth and does not respond necessarily in accordance with the popular view of the inter-bank market.

5.2 Monetary Survey

A sharp jump in monetary aggregates during the last month of FY07 pushed the aggregate M2 growth for the year to 19.3 percent (see **Table 5.3**). This strikingly higher growth in M2 was caused entirely by a phenomenal rise in NFA that more than offset the visible slowdown in the NDA of the banking sector. While the increase in NFA reflects the improvement in country's financial and capital account inflows (including government borrowings), the slowdown in NDA depicts reducing excess demand pressures in the economy as well as a shift in fiscal financing mix towards non-bank sources.

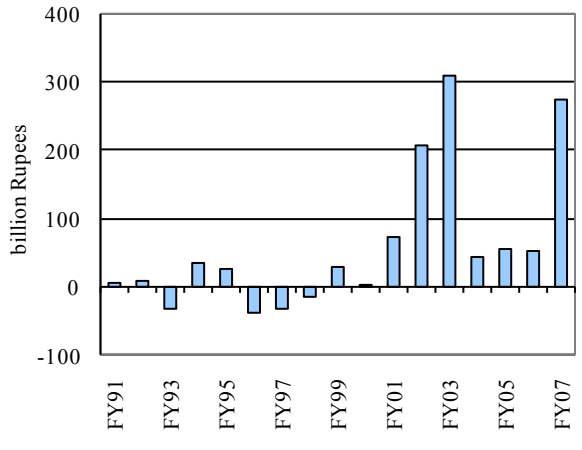
Table 5.3: Monetary Survey
billion Rupees

	Credit Plan for FY07	FY06	FY07
M2	**459.9**	**446.3**	**658.3**
Growth rate		***15.1***	***19.3***
NFA	**9.8**	**73.4**	**274.6**
Growth rate		*11.5*	*38.7*
SBP		61.8	222.7
Scheduled banks		11.6	51.8
NDA	**450.1**	**372.9**	**383.7**
Growth rate		*16.1*	*14.2*
SBP		22.6	-66.8
Scheduled banks		350.3	450.5
of which			
Government borrowing	**130.1**	**86.9**	**92.8**
For budgetary support	***120.1***	*67.1*	*102.0*
SBP		135.1	-58.6
Scheduled Banks		-68.0	160.6
Commodity operations	**10.0**	**19.9**	**-9.2**
Non government sector	**395.0**	**408.4**	**385.7**
Private sector	390.0	401.8	365.7
Other items (net)	**-75.0**	**-122.4**	**-94.9**

5.2.1 Net Foreign Assets

The NFA of the banking system during FY07 increased by Rs 274.6 billion; almost four times the increase during FY06 (see **Figure 5.8**). To put this in perspective, the FY07 increase in NFA was the second largest increase ever, second to only FY03. While the sharp increase in NFA during FY03 was caused by surpluses in both the current and financial accounts, the increase in NFA during FY07 stemmed entirely from the surplus in financial account, especially in the second half of FY07 (see **Figure 5.9**).

Figure 5.8: Yearly NFA Flows



Furthermore, most of the H2-FY07 increase in NFA was concentrated in June 2007; excluding which, the NFA growth in H2-FY07 was visibly lower than that in H2-FY06.[10] The higher growth in NFA during H2-FY07 was mainly caused by a sharp increase in FDI, persistent rise in portfolio investment, larger receipts in private sector

[10] However, this was mainly caused by difference in timing of Euro bond issue. In particular, the receipts of Eurobond issuance were realized in Mar 2006 during FY06; however, in the period under review, the same were realized in the month of June.

loans, and hefty inflows under logistic support, as well as financial aid from multilateral agencies. More importantly, a sharp decline in current account deficit during H2-FY07 compared with H1-FY07 also caused increase in *net* inflows.[11]

This suggests that the NFA growth during FY07 was caused by an increase in the net foreign exchange inflows in both the public sector as well as the private sector. This was in contrast to FY06, when the foreign exchange inflows in the public sector were the key determinants of the rise in NFA of the banking system.

The higher public sector inflows reflect the increased government reliance on privatization proceeds and other external resources for budgetary finance. In comparison, the surge in private sector inflows reflects the promising growth prospects of the domestic economy, impressive showing of the capital markets, rising interest rate differential as well as the exhausting of credit limits of selected business entities with domestic banking institutions.[12]

Since the forex inflows in the private sector are directed through commercial banks, the NFA of the commercial banks increased sharply during FY07. Specifically, the NFA of commercial banks increased by Rs 51.8 billion during FY07 compared with net inflows of Rs 11.6 billion in the preceding year (see **Figure 5.10**).

Further strength in scheduled banks' NFA came from the shift in utilization of FE-25 deposits of commercial banks during FY07 from FY06. In specific terms, due to the increase in subsidy provided under EFS, the foreign currency loans decelerated during FY07 (see **Figure 5.11**). As a result of lower demand from the domestic economy, banks' placements of foreign currency abroad in form of investments as well as in nostros also increased during FY07. This substitution in the utilization of FE-25 deposits further caused the increase in scheduled banks' NFA.

Figure 5.9: Comparing CAD & Other External Inflows

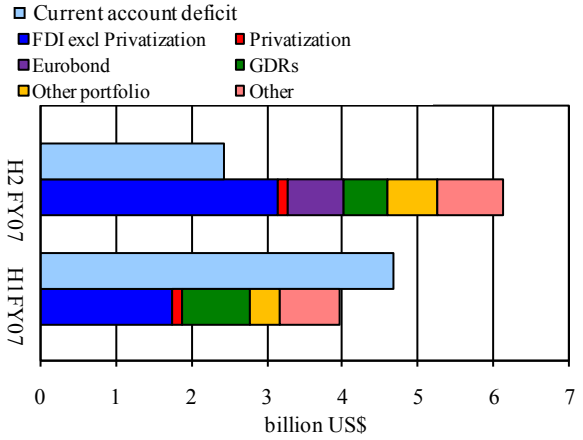


Figure 5.10: Concentration of NFA Flows in June

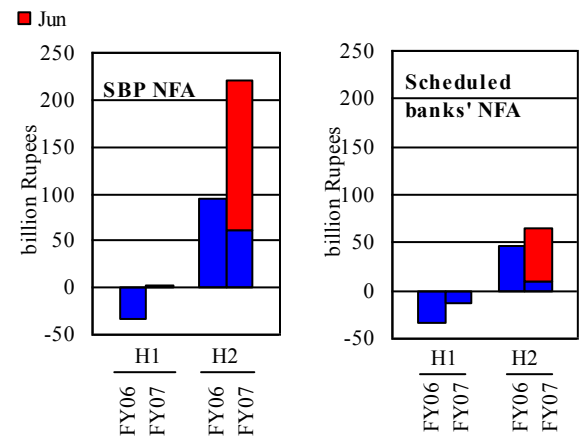
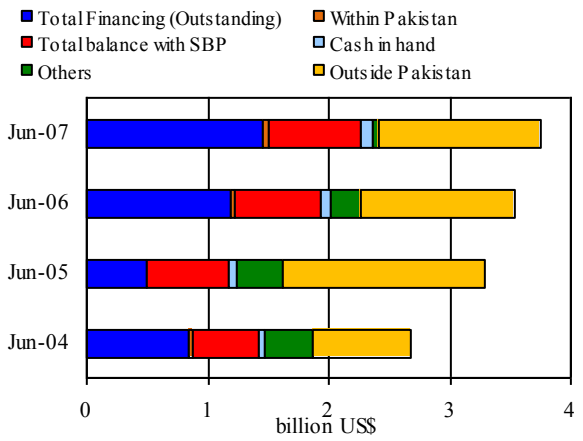


Figure 5.11: FE-25 Utilization (end-June Composition)

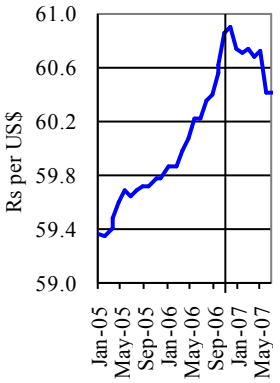


[11] During the first half of FY07, the external account had remained under pressure thereby resulted into contraction in NFA through most of the period.

[12] Specifically, a few multinational cellular companies had exhausted their prescribed credit limits with the domestic banking system.

This sharp increase in commercial banks' NFA, however, would have been even higher had the SBP not absorbed the excess foreign exchange liqudity from the inter-bank market. To elaborate this further, though the SBP ended up as a net seller of US dollar in the inter-bank market during FY07 similar to FY06, the magnitude of these interventions (in net terms) were significantly low due to heavy net purchases during H2-FY07 (see **Figure 5.12**). This significant decline in SBP's support to the foreign exchange market during FY07 was the major contributor to the sharp increase in SBP NFA (see **Figure 5.13**). To put this in perspective, had the magnitude of US dollar sales to inter-bank market during FY07 remained the same as in FY06, the increase in SBP NFA during FY07 would have been half the actual increase. The rest of the increase was due to relatively higher public sector inflows including logistic support, disbursement of loans from ADB and IDB and floatation of GDRs.

Figure 5.12: Exchange Rate Movements



Net Purchases by SBP

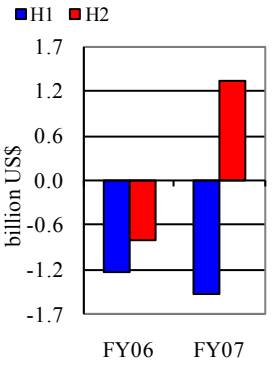
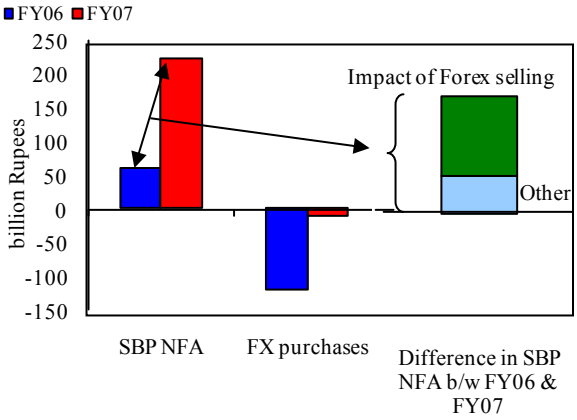


Figure 5.13: Contribution of Forex Internvention in Increase in SBP NFA



Indeed, it was this sharp rise in SBP NFA which has substantially inflated the reserve money growth during FY07. In this context, the recent increase in discount rate may have two possible implications for the NFA and the overall growth in reserve money. On one hand, where the increase in interest rates may trigger further foreign exchange inflows in the economy by widening further the interest rate differential, on the other, this would help SBP in sterilizing the upward pressures on reserve money.

Going forward however, the emergence of vicious circle, i.e., raising interest rates to continue sterilization but simultaneously attracting foreign exchange inflows and require further sterilization, may appear as a challenge to the monetary policy conduct. In particular, raising interest rates will be acceptable only to a level where it does not contribute to an economic downturn. Beyond this, increasing the interest rates will not be a costless decision. Since the alternative sterilization instruments also involve draining liquidity from the inter-bank market, using any (or mix) of these instruments will also exert upward pressures on interest rates (see **Box 5.4**).

The above discussion therefore suggests that with the increased international financial integration coupled with the operational problems and costs involved in alternate modes of sterilization, the international interest rates have a great influence on domestic interest rates and therefore, the list of trade-offs with which SBP conducts its monetary policy may have expanded.

Box 5.4: The sterilization Experience of Asian Economies

The liquidity management instrument that the SBP used most commonly in the recent months has been the open market operations (OMOs). Through OMOs, the SBP absorbs surplus liquidity from the inter-bank in exchange of the government securities held by the central bank. The resulting decline in SBP's assets (i.e., holding of government papers) leads to a contraction in reserve money. Alternatively, along with OMOs, many countries have used different measures to sterilize the

impact of different flows on the reserve money. However, it is important to mention that these measures also entail heavy interest cost that is to be borne by any of the sectors of the economy i.e., either the Central Bank or the government. These include,

1. Central Bank securities
Central Banks of many countries have issued their own securities to sterilize the foreign inflows mainly due to inadequate stock of government securities, absence of access of Central Banks to government securities and underdeveloped/undeveloped market for government securities. But the experiences of these countries have shown that there also certain limitations to the issuance of Central Bank securities. Firstly, as the interest cost in this case is born by the Central Bank so increase in overall interest expenses can jeopardize the very existence of the Central Bank by eroding its profits. e.g., the Central Bank's deficit increased to 0.5-0.7 percent of GDP in Colombia during 1990s and even mounted to 1.4 percent of the GDP in Chile. Secondly, Central Bank securities issuance results in two sets of competing risk free papers with a similar yield curve. In such cases, fragmentation of the debt market can cause instability to the government borrowings decisions.

2. Government/public sector deposits with Central Bank
A number of south east Asian economies, including Malaysia, Indonesia, Thailand and Singapore, have regulated the excess liquidity in the inter-bank market by diverting government /public sector deposits from commercial banks to Central Bank. The use of this instrument increases the interest burden on Central Bank as the government continues to get the market based return.

3. Market stabilization bonds by the central government
Given the finite stock of government securities held with Central Banks, in many Asian economies, the central governments create T-bills in excess to the actual financing requirement. These T-bills are used for purpose of liquidity management alone. The major difference between such arrangement and Central Bank securities is that the fiscal cost in such arrangements are borne directly by the government. India in 2004 has introduced a new instrument called the market stabilization scheme (MSS) that has evolved as a useful instrument to sustain the OMOs. Under this scheme, the RBI has been empowered to issue government securities solely for liquidity absorption purpose. Since its introduction, the scheme has been effective in medium-term monetary and liquidity management.

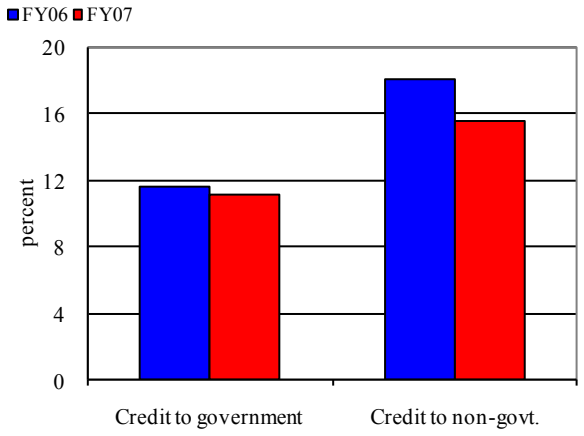
4. Interest bearing deposits by scheduled banks
An option used by other countries for draining excess liquidity in the banking system is to pay interest on deposits offered by the commercial banks to the Central Banks on voluntary basis. A few countries like Malaysia and Taiwan have exercised this option. In this case, the interest cost of the deposits is reflected in the balance sheet of the Central Bank.

The above discussion is based on findings of the Report of the Working Group prepared by the Reserve Bank of India on Instruments of Sterilization

5.2.2 Net Domestic Assets

Growth in NDA of the banking sector during FY07 slowed down to 14.2 percent during FY07 compared to 16.1 percent growth during FY06. This was mainly because of sluggish growth in overall credit to private sector as well as a lower growth in government sector borrowings (see **Figure 5.14**).

Figure 5.14: Causative Factors of NDA Growth



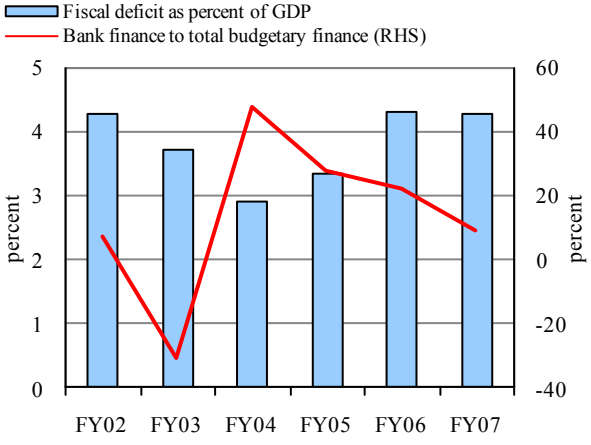
Government Borrowings for Budgetary Support

Government budgetary borrowings from the banking system during FY07 remained comfortably within the target, though significantly higher compared to the borrowings during FY06. These lower borrowings were possible due to a substantial

increase in non-bank debt as well as higher external sector borrowings during the year.[13]

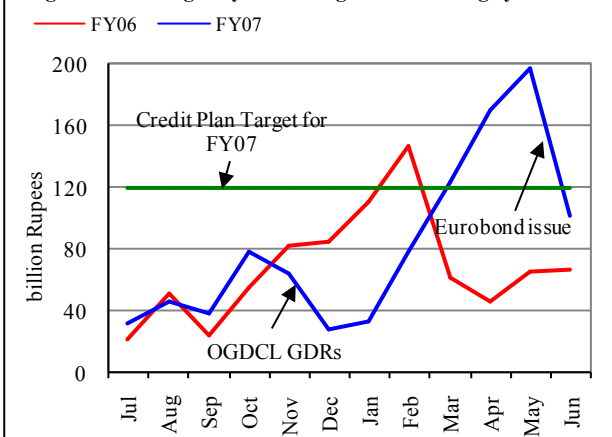
As such, the reliance on bank finance for budgetary purposes reduced further (see **Figure 5.15**). The change in financing mix has implications for both the debt management as well as monetary policy.

Figure 5.15: Reducing Reliance on Bank Finance



First, the relative increase in domestic non-bank borrowings will lengthen the maturity profile of deficit finance and thus increase the debt servicing cost. At the same time it will also make the government debt less vulnerable to adverse changes in short-term interest rates. Second, the increased reliance on external finance, due to its direct impact on SBP NFA and reserve money, has created significant pressures on the conduct of monetary policy through the course of FY07.[14]

Figure 5.16: Budgetary Borrowings from Banking System



To elaborate further, apparently, the below target budgetary borrowings exhibit an improved monetary-fiscal co ordination, but in actual the fiscal stance during FY07 was one of the major challenges in modulating the monetary policy. Specifically:

1. The growth in aggregate budgetary finance (both domestic and external) probably contributed in the inflationary expectations during the year (see **Box 5.5**);

2. Since the increase in aggregate budgetary borrowings can put upward pressures on interest rates, this raises the risks of crowding out of private investments (see **Box 5.6**);

3. Due to uncertainties regarding the magnitude and timing of revenue collection and disbursements of external finance, the trend in budgetary borrowings continued to follow an abrupt pattern which created difficulties in liquidity management. This phenomenon was evident mainly in Q3-FY07 when the budgetary borrowings from the banking system exceeded substantially from the estimates prescribed in Credit Plan for FY07 (see **Figure 5.16**). Such episodes of abrupt borrowings send undesirable signals regarding inflation expectations.

4. In sharp contrast to FY06, the budgetary borrowings from the banking system though constituted of commercial bank borrowings during FY07, the disaggregated data shows that throughout H1-FY07,

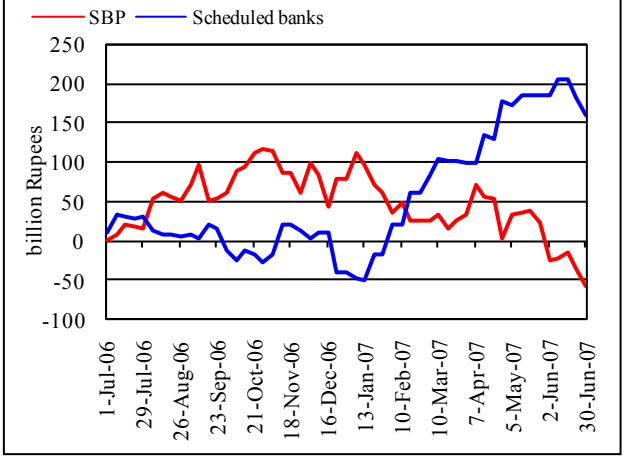
[13] Government mobilized Rs 56 billion through NSS during FY07 compared to Rs 5.0 billion during FY06. In addition, the net collection through PIBs reached Rs 48 billion during FY07 compared with net retirements in FY06. As a result, domestic non-bank borrowings during FY07 reached Rs 86 billion during FY06.

[14] The higher external borrowings also raise the costs to the economy following the adverse exchange rate movement.

the budgetary borrowings have been a major factor of excessive liquidity creation as the government borrowed heavily from the SBP.

In specific terms, up to December 2006, commercial banks were reluctant to lend to government as the interest rate differential between government and private sector lending had widened substantially following the increase in discount rate and reserve requirements in July 2006. Therefore, the participation of banks in T-bill auctions was fairly limited and the banks were bidding at excessively higher rates. As a result, the burden of financing budgetary requirements fell on the SBP (see **Figure 5.17**). This had two consequences:

Figure 5.17: Composition of Budgetary Borrowings



Firstly, the resultant rise in the reserve money growth increased the risk of acceleration in M2 growth and inflation. Secondly, the stock of T-bills holdings with the commercial banks declined sharply which (amid increase in SLR requirements) necessitated sizeable replenishment. Therefore, during H2 FY07 commercial banks started investing aggressively in the government paper.

Box 5.5: Fiscal Imbalances and Inflation: Review of Empirical Literature

Milton Friedman (1968), in his famous presidential address to American Economic Association had warned not to expect too much from monetary policy since it can not permanently influence the level of real output, unemployment and real return on securities. However, he asserted that monetary authority could exert substantial control over inflation in the long run. Commenting on this word of caution, Sargent (1981) viewed that the list of things that the monetary policy can not control can even include inflation especially under the coordination where fiscal policy dominates monetary policy. This is because if the fiscal deficit can not be financed through other resources, monetary authority will have to print money and create inflation.

Thus fiscal imbalances have always remained in the inflation models. However, fiscal view of inflation has been more dominant in developing countries with less efficient tax collection and limited sources to external financing tend to lower the relative cost of signiorage and increased dependence on inflation tax (for instance, Alesina and Drazen (1991), Calvo and Vegh (1999. Similarly, Piontkivsky (2001), based upon the monthly data for Ukraine from 1995-2000, found that the impact of Central Bank's claims on government on inflation is more than the impact of monetary base and exchange rate and thus the fiscal policy remains an important inflationary factor in Ukraine. However, Catao and Terrones (2003) concluded that in exploring a strong and statistically significant relationship between fiscal deficit and inflation across a broad range of countries with varying inflation rate is a task yet to accomplish. The similar concern was shown by Blanchard and Fischer (1989): "*a common criticism of this stress on the budget deficit is that the data rarely shows a strong positive association between the size of the budget deficit and the inflation rate*".

For instance, Fischer, Sahay and Vegh (2002), using a fixed effect in a panel of 94 developing and developed countries, conclude that fiscal deficits are main drivers of inflation and estimate that a one percentage point improvement in fiscal deficit to GDP ratio typically leads to 4.2 percentage points decline in inflation. However, they further concluded that a strong positive relationship between fiscal deficit and inflation can not always be detected in the data. In the cross section time series panels, the relationship was significant for high inflation countries but insignificant for low inflation countries.

Studies conducted to identify the relationship between budgetary finance and inflation in Pakistan have described three broad channels. First, fiscal deficits have a direct and significant relationship with inflation, independent of its indirect effects through increase in money supply. This relationship was found in Shabbir and Ahmed (1994) that concluded that a 1 percent increase in budget deficit leads to 6-7 percent increase in general price level. Furthermore, a preliminary investigation into the nature of this large and significant direct effect shows that budget deficits may be influencing formation of price expectations. Second, domestic financing of government from the banking system is inflationary in the long run. The findings of Choudhary and Ahmed (1995) corroborate this relationship by suggesting that money supply is endogenous and depends on fiscal deficit, among other variables. They suggested that in order to control inflationary pressures in the economy, the government must cut down the size of budget deficit. Third, the fiscal deficit has a positive relationship with

inflation through balance of payment channel. Khan and Qasim (1996) presented this view suggesting that expansionary fiscal stance has been reflected in deteriorating balance of payments in Pakistan. As a result, the downward pressures on Rupee emerge that eventually leads to inflation. Similar results were found by Agha & Khan, (2006). Using annual data from FY73 to FY03 and employing Johansen's co integration technique and assuming the impact of GDP and exchange rate as exogenous, they found that the long run inflation is not only related to fiscal imbalances but also to the sources of financing fiscal deficit. The co-integrating vector suggested that Rs 1 billion increase in the borrowings from banking system would increase the price level by 0 .0048 percentage points in two years. In addition, Rs 1 billion increase in fiscal deficit would increase the price level by 0.0215 percentage points.

References:

1. Agha, A.I. and M.S. Khan (2006). "An Empirical Analysis of Fiscal Imbalances and Inflation in Pakistan" *SBP-Research Bulletin*, 2 (2): 343-361
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5. Khan, A. H. and A. M. Qasim (1996). "Inflation in Pakistan Revisited." *Pakistan Development Review*, 35: 747-759.
6. Shabbir, T. and A. Ahmed (1994). "Are Government Budget Deficit Inflationary? Evidence from Pakistan." *Pakistan Development Review,* 33: 955-967

Box 5.6: Crowding out of Private Sector: A Phenomenon Absent by Now

During FY05-FY07, the SBP has raised the discount rate from 7.5 percent to 10.0 percent and kept tightening the money market liquidity through increase in frequency of open market operations. As a result, the weighted average lending rates have started moving up. Unfortunately, this tight monetary posture is being complemented with expansionary fiscal stance. In particular, budget deficit, as percent of GDP, has been on a rising trend for last couple of years after having declined during FY02-FY04. The rising deficit has resulted in increased budgetary borrowings from the banking sector, especially amid the less interest of general public in NSS instruments. Indeed, higher government borrowings from the banking system put upward pressures on interest rates, at least theoretically. Therefore, it is argued that if the tight monetary stance continues with the expansionary fiscal policy, the private investment in the economy is likely to crowd out.

Theoretical base of Crowding-out

Benjamin Friedman (1978) has examined two kinds of crowding out; (1) transactions crowding out; and (2) portfolio crowding out. The transactional crowding out phenomenon is quite simple. Increase in government borrowings from the banking system reduces the supply of loanable funds. This causes an increase in demand-supply gap of private sector credit and drives up interest rates. Finally the increase in interest rates leads to a slowdown in private sector investment in the economy and hence the economic growth. However, this is only true, as Keynes argued, if the negative impact of slowdown in private sector investments outweighs the positive impact of government spending and the economic growth remains stagnant. If the government spending stimulates the private sector investment then the phenomenon is referred to as 'crowding-in'. Portfolio crowding out refers to case when government finances its deficits through issuing interest bearing bills/certificates.

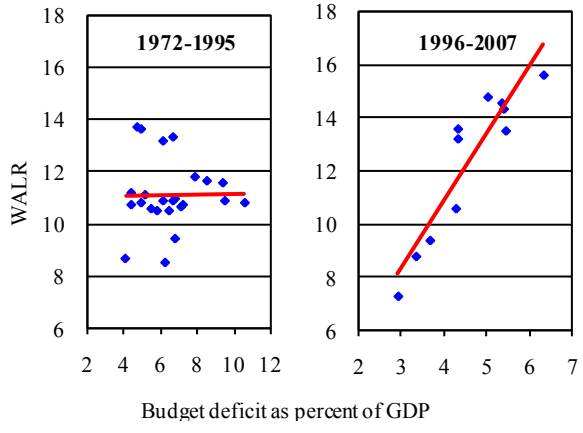
Evidence of Crowding-In in Pakistan

Significant empirical evidence is available that verifies the existence of crowding-in phenomenon in Pakistan. Haque, A Tariq used the 22 years data from 1980 to 2002 and found the evidence of private investment being crowded-in by public investment expenditures in Pakistan. Likewise the estimates of Haqueue and Montiel (1991) supported the hypothesis that the government capital stock is positively correlated with the private sector capital accumulation.

In particular, the infrastructure build up resulting from government investments appeared to facilitate private investment.

However, taking into account the impact of financial repression is important while analyzing the positive impact of public sector investments on private sector investments and hence the economic growth.

Figure 5.6.1: Relationship b/w WALR and Budget Deficit



Specifically, prior to the financial sector reforms introduced 1991 onwards, the weighted average lending rates in the economy were entirely administered and banks had no control over pricing their loan products. Rather, lending rate mechanism was to be followed by ceilings on lending rates within which banks could change prices. As such there appears to be no relationship between the budget deficits and lending rates in the economy during the 1972-95 periods (see **Figure 5.6.1**).

The financial sector reforms brought in the much awaited shift in structure of interest rates from purely administered interest rates to market based interest rates. During 1995, the ceilings on lending rates were removed followed by the removal of interest floors during 1997.

Table 5.6.1: Pair wise Granger Causality Tests

Sample: 2001:06 2006:09

Lag: 1

Null Hypothesis:	Obser	F-Stats	Probab
Govt. borrowings does not Granger Cause WALR	64	4.34	0.04
WALR does not Granger Cause govt. borrowings		1.29	0.25

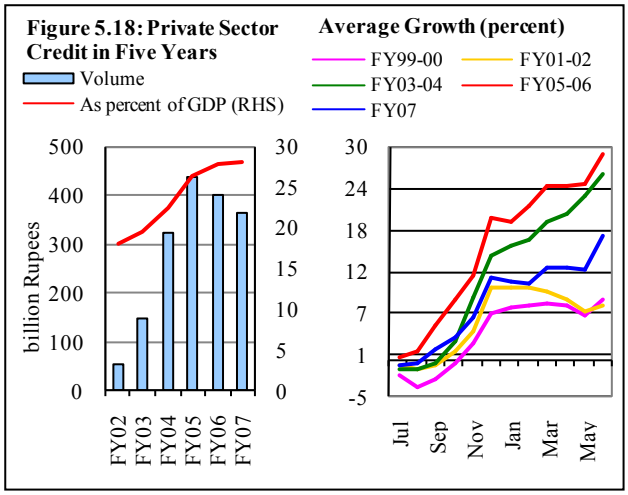
As a result, interest rates started responding to the movements in budget deficits. Therefore during this period a significant positive relation can be found between the government borrowings from the banking system and the lending rates; with granger causality running from former to latter (see **Table 5.6.1**). Therefore, it can safely be argued that it was only the period 1996 and onwards when any relationship between the budget deficit and interest rates can be established.

References:

1. Evans, P. (1985). "Do large deficits produce high interest rates." *American Economic Review*, 75(1):68-87
2. Friedman, B.M. (1978). "Crowding in or Crowding Out? Economic consequences of financing government deficits." *Brookings Papers on Economic Activity* 3:593-641
3. Haque, T. A. (2003). "*Fiscal strategy for growth and Employment in Pakistan: An alternative consideration, a case study*" ILO Employment Paper No. 2003/56
4. Haque, Nadeem. U and P. Montiel. (1991). "*The macroeconomics of public sector deficits; the case of Pakistan*", World Bank Policy Research and External Affairs working Paper No. WP 1991/673.

Private Sector Credit

Credit to private sector registered a moderate growth of 17.3 percent during FY07 which is the lowest growth in the preceding five years. Since the growth in private sector credit was only slightly higher than the nominal GDP growth during FY07, the private sector credit to GDP ratio slowed down after accelerating in the preceding five years (see **Figure 5.18**).



Indeed, while some slowdown is explained by a very large base of FY05 and FY06 when the credit grew by a robust 28.9 percent on average, a large part of the slowdown reflects the convergence of private sector credit growth to its long term trend.

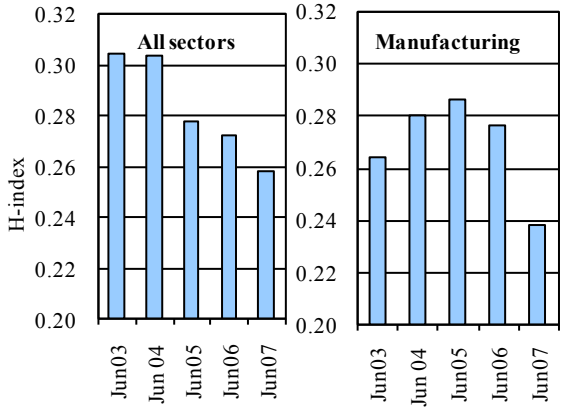
Credit demand and sector concentration

The slowdown in business credit emanated from both the demand and supply side factors. In specific terms, while the increase in raw material prices did cause acceleration in credit demand in a few industries, the increase in interest rates had put significant downward pressures on credit demand especially in the industries that are capable of generating cash flows internally sufficient to meet working capital requirements. This is evident in the decline in debt to equity ratio of the corporate sector during CY06[15]. This suggests that the interest rate channel of the monetary policy transmission mechanism was effective during FY07 (see **Box 5.7**). In addition, a few multi-national companies resorted to international credit market to meet financing gaps that appeared as a result of exhausting of

[15] Please see **Banking System Review** for **2006** for details.

their prescribed credit limits with the domestic banking industry. This is the reason why the deceleration in credit demand is concentrated only in a few industries.

Figure 5.19: Herfindahl Index of Credit Concentration



Interestingly, the sectors where the credit demand remained weak during FY07 traditionally have a relatively large share in overall bank credit (for instance, the major categories of textile sector, including spinning and made-up textile). As a result, banks got an opportunity to diversify their credit portfolio. The credit diversification in various sectors of the economy is visible from declining values of the Herfindahl index of credit concentration (see **Figure 5.19**). In addition to the declining credit demand from the traditional sectors, the declining concentration also reflects the emergence of credit demand from various new sectors in the recent years including telecommunication (with the initiation of new television and radio channels), power sector (to start new developmental projects to meet the energy requirements of the growing economy), construction sector, and the agriculture sector where the annual agricultural disbursements surpassed the annual credit target for FY07.

It is also worth noting that the level of Herfindahl index not only declined in aggregate terms but it has also significantly declined within the manufacturing sector showing a diversification of credit in industries like chemical, basic metals, paper and paper board and food and beverages industries.

Box 5.7: Slowdown in Credit Growth: Interest Rate Channel Vs the Bank Lending Channel

The credit channel, on the other hand, influences the supply side of credit through two sub-channels: (1) borrowers' net worth channel; and (2) banks' lending channel.

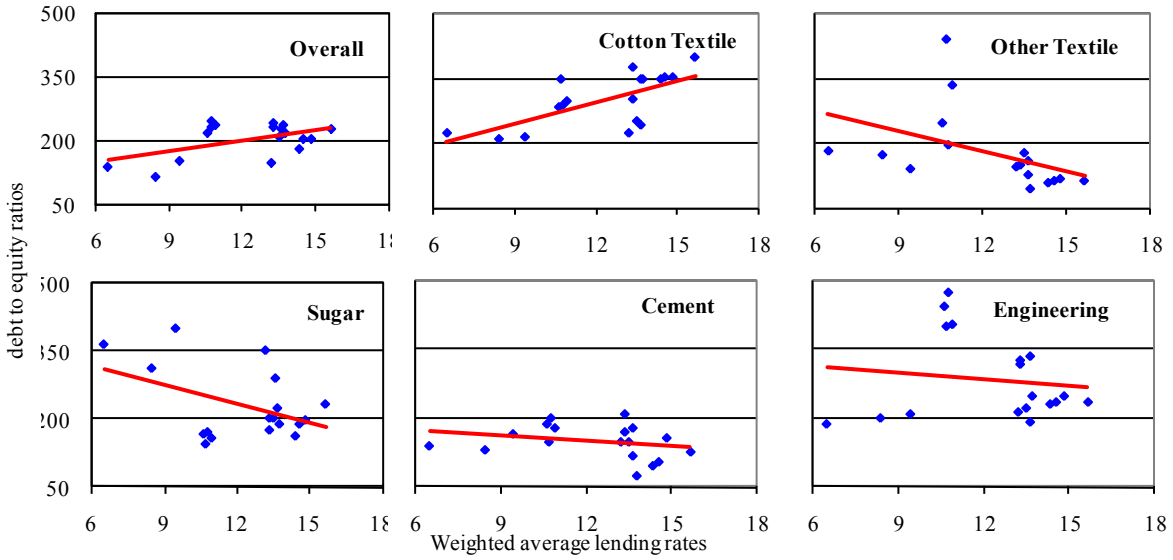
According to borrowers' net worth channel, the increase in interest rates raises the financial expenses of the borrowers and thus reduces their net worth. This depresses the value of collateral and increases the credit risk of the borrower. Banks' lending channel mainly reflects the Central Banks' liquidity absorptions from the banking system through OMOs or reserve requirements, for instance, that restricts the availability of loan-able funds with the banks.

Since the tight monetary posture in last two years did not adversely impact the growth momentum of the economy while curbing the inflationary pressures, the corporate sector has continued to perform impressively. The net sales and profitability have remained intact despite a rise in financial expenses and energy costs. As such, the net worth of the corporate sector increased further, well depicted in an impressive showing of corporate stocks.

Bank lending channel also does not seem to be working despite heavy absorptions by the SBP through OMOs as well as reserve requirements. The huge foreign exchange influx in both the public as well as private sector and the fiscal expansion have avoided any significant drain of liquidity in the inter-bank market. In addition, the increase in banks' paid up capital to meet the new minimum capital requirements as well as increased profitability of banks have further added liquidity in the banking system. This is evident in a decline in credit to deposit ratio and a rather sharp decline in credit to deposits plus capital ratio of the banking system in H2-FY07.

Therefore, it is the interest rate channel that appeared to have slowed down the private sector credit. This is also evident from **Figure 5.7.1** which shows that in most of the sectors, corporates usually substitute bank debt through retaining profits in businesses when the interest rate increases. As a result there exists a negative relationship between debt to equity ratio and weighted average lending rates in the economy in most of the sectors. The same phenomenon does not hold true in the case of cotton textile, however. This is because, being the export oriented sector, this sector is provided with the subsidy in the form of export finance scheme. Therefore, when the interest rates rise in the economy, the level of subsidy is also increased, providing them more incentive to borrow from banks. Since the cotton textile constitutes the bulk of business sector in Pakistan, the very same relationship is reflected in the overall borrowing pattern.

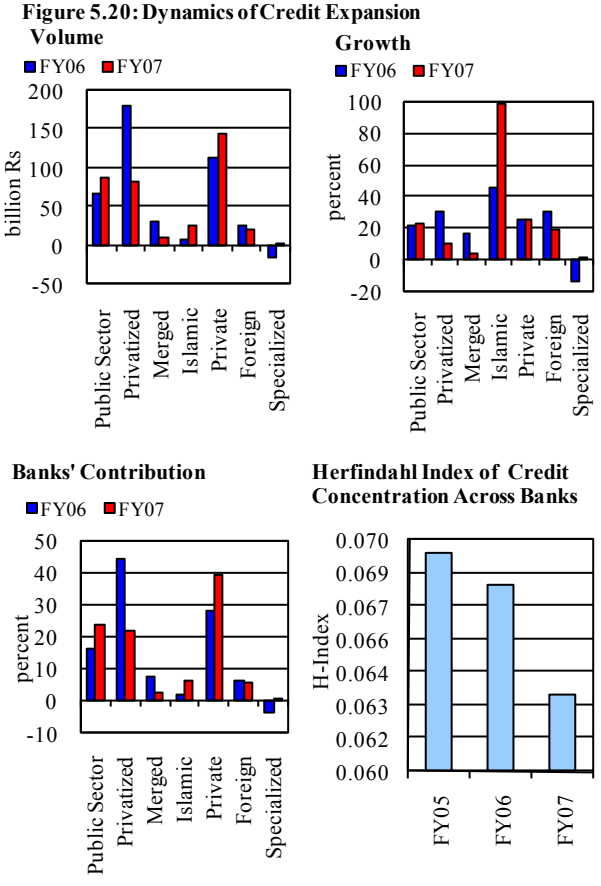
Figure 5.7.1: Relationship b/w Corporate Leverage & WALR (1988-2005)



Credit supply and bank concentration

Although the SBP kept the liquidity conditions tight in the inter-bank market throughout FY07, the impact on banks' ability to lend was weaker by a number of factors such as increase in banks' paid up capital, more than required capital adequacy of banks, increase in cash recoveries of NPLs and the internal cash generation through increased profitability (see **Box 5.8**).

Figure 5.20: Dynamics of Credit Expansion



However, the continued process of mergers and acquisitions, up-gradation of the risk management systems in a few banks and a slight deterioration in credit quality have prevented a few banks from aggressive lending. The banks that registered most of the slowdown in credit supply included those banks which traditionally have the largest share in aggregate credit supply. Therefore, along-with the decreasing credit concentration in various sectors of the economy, bank-wise credit concentration has also declined during FY07 (see **Figure 5.20**).

In particular, the decline in concentration has mainly stemmed from a slowdown in credit growth of large privatized banks. Most of these banks were involved in upgrading the risk management processes within their institution, especially improving the credit assessment and monitoring systems during FY07.

In addition to the privatized banks, the banks that merged during FY07 also slowed down their lending activities. Moreover, the lending activities of foreign banks though decelerated but remained

high at 19.3 percent during FY07. The slowdown visible in foreign banks' lending activities was caused mainly by the decline in demand for consumer loans, since a large part of the loan portfolio of foreign banks is comprised of consumer loan products.

The remaining banking groups including private sector banks, public sector banks, Islamic banks and specialized banks have increased their lending activities during FY07. In specific terms, the credit growth exhibited by the public sector banks was impressive at 23.3 percent over an already high FY06 growth of 21.6 percent. Finally, the Islamic banks also doubled their private sector lending following the opening up of new banks in the group during FY06 and FY07.

Box 5.8: The Capital Channel: A Relatively New Channel in Monetary Policy Transmission Mechanism

The role of bank capital has been largely ignored in the monetary policy as Friedman (1991) suggested that 'most economists have regarded the fact that banks hold capital as at best a macroeconomic irrelevance and at worst a pedagogical inconvenience." However, following the adoption of Basle Accord in 1988 by the G-7 countries, bank capital has become extremely important from banks' operational and regulatory perspectives. Capital adequacy requirements, in particular, have gained sufficient significance in explaining the banks' lending behaviors.

When the bank equity is at or below the regulatory requirements for most of the banks in the system, the banks can not expand lending without raising additional capital. Since issuing the equity is a costlier task, the monetary policy will not have major effect on credit expansion. In specific terms, with binding capital requirements, any increase in availability of reserves will not increase private sector credit rather the additional liquidity will be placed in assets that do not carry capital requirements, for instance, government securities. As such, the bank lending channel is weakened with binding capital requirements. In addition, even when the current capital requirements are not binding, low-capital bank may optimally forego the profitable private sector lending in order to lower the risk of future capital inadequacies.

For instance, the capital adequacy requirements, among other factors, are often cited as responsible for the credit crunch in US during early 1990s. Bernanke and Lown (1991) showed that the shortage of equity capital limited banks' ability to extend loans and therefore used the term 'capital crunch' to refer the resulting recession. Similarly, Udell and Berger (1994) termed the capital adequacy requirements as regulatory tax on banks' lending activities since capital is more expensive to raise compared to bank deposits. They suggested that the aggregate credit reallocation or the credit crunch is expected to be stronger when (1) banks below the risk based standards are large in number; and (2) greater proportion of assets are held by credit deficient banks.

Nishiyama and Okada (2006) empirically examined whether the decline in bank loans in Japan in the late 1990s was caused by the banks' downward adjustments of loan supply (a "credit crunch") in response to capital losses. Estimating the new lending supply as a non-linear function of the capital-to-asset ratio, they found that the forward-looking banks avoid failing to meet regulatory capital requirements in the future that causes "credit crunch".

Nag and Das (2002) assessed the impact of capital requirements on flow of credit to business sector by the Indian public sector banks. Their model based analysis of credit growth and simple decomposition analysis of growth in asset portfolio corroborated that in the post reform period, the Indian public sector banks shifted their assets in a way to reduce capital requirements that had a dampening effect on credit supply.

Barrell and Gottschalk (2006) showed that the changes in capital adequacy ratio in Brazil and Mexico may have negative effect in households, firms and governments by raising lending rates and decreasing bank loans. They found that in Brazil, public sector finance may expand following the increase in CAR in detriment to private sector lending.

Source:

1. Barrell, R and Gottschalk.S. (2006). "*Impacts of capital adequacy requirement on emerging market*", National Institute of Economic and Social Research.
2. Berger, A.N and G.F.Udell. (1994). "Did risk-based capital allocate bank credit and cause a 'credit crunch' in the United States?" *Journal of Money, Credit and Banking* 26(03):585-625.
3. Bernanke, B.S and C.S. Lown. (1991). "*The Credit Crunch*." Brookings Papers on Economic Activity, No.2:205-239.
4. Nag.K.A and A.Das. (2002). "Credit growth and response to capital requirements: evidence from Indian public sector banks", *Economic and Political Weekly* pp. 3661-3668.

Trend in Various Loan Products

The slowdown in private sector loans was contributed by both the business sector as well as personal sector loans, but the slowdown in personal sector loans was much sharper.

Business sector loans

Business sector loans during FY07 decelerated moderately from 19.7 percent in FY06 to 15.4 percent in FY07 (see **Table 5.4**). The slowdown was visible in working capital loans and trade related loans, as the fixed investment loans registered higher growth during FY07 (see **Figure 5.21**).

Table 5.4: Growth in Business Sector Loans
percent

	Trade finance		Working capital		Fixed investment	
	FY06	FY07	FY06	FY07	FY06	FY07
I. Private Sector (Business)	**14.3**	**8.4**	**22.5**	**12.2**	**18.5**	**25.6**
A. Agriculture, hunting and forestry	846.2	-92.3	8.3	18.3	-9.3	-0.6
B. Manufacturing	12.8	11.2	19.2	10.6	23.4	13.1
3) Manufacture of textiles	16.8	3.9	22.6	-5.6	6.9	6.0
Manufacturing less textiles	***7.1***	***22.5***	***16.6***	***23.9***	***41.5***	***19.1***
a. Spinning of fibres	9.0	10.8	18.5	-15.4	-8.0	7.2
C. Electricity, gas and water supply	125.5	-67.8	30.4	159.5	14.9	100.8
D. Construction	475.5	-38.9	33.2	11.5	23.5	88.3
E. Commerce and trade	13	6.1	35.9	2.8	63.1	78.7
F. Transport and communications	-37.7	198.5	50.8	39.6	23.6	25.2

1. Fixed Investment

The aggregate fixed investment loans to the business sector registered a remarkably high growth of 25.6 percent compared to a growth of 18.5 percent during FY06. Major increases in the fixed investment loans were visible in power sector, telecommunication sector and the sugar industry. Fixed investment in the telecommunication sector increased substantially by 41.8 percent during FY07 compared to a growth of 26.7 percent in FY06. The major factors responsible for such a high growth in fixed investment in the telecommunication sector include: (1) Expansion in the network of the existing cellular companies in Pakistan; and (2) increased investments in the sector as licenses issued to new television and radio channels. Similarly, the high growth in fixed investment loans to power sector reflects the expansion in power generating and distributing companies.

The slowdown in fixed investment loans in the textiles industry was caused principally by the capacity enhancement in the sector in recent years, especially under Textile Vision 2005, as also evident in increase in import of textile machinery in recent years (see **Figure 5.22**). In addition, Textile manufacturers also did not make substantial investments during FY07 in the expectations of relief package in the textile policy of the government.

Figure 5.21: Composition of Growth in Business Sector Loans

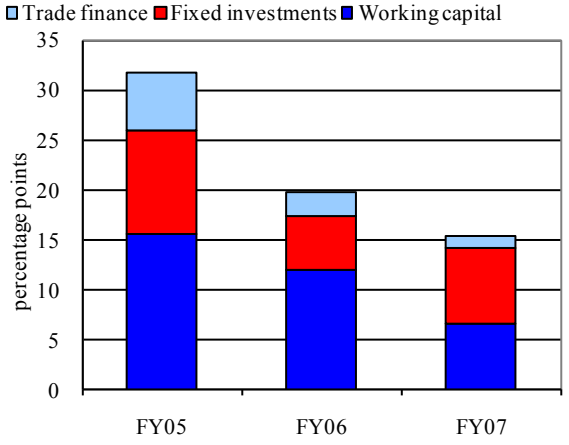
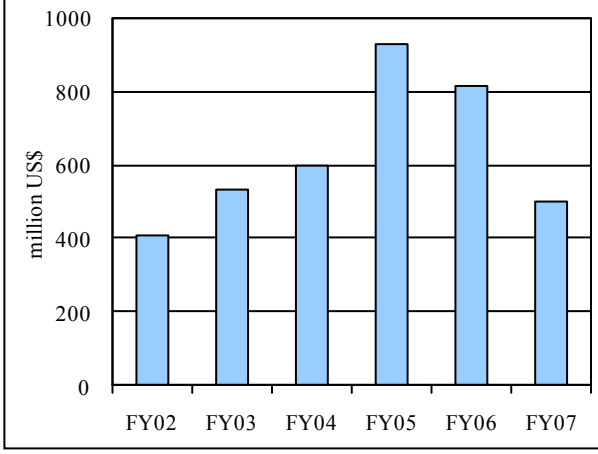


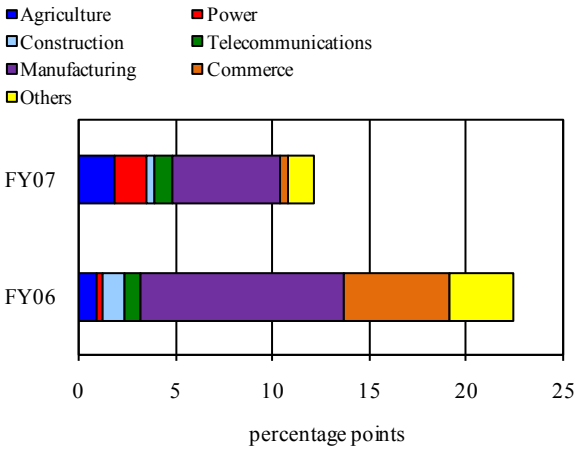
Figure 5.22: Import of Textile Machinery



2. Working Capital Loans

Growth in working capital finance during FY07 slowed down to 12.2 percent compared to a growth of 22.5 percent during the preceding year. Most of the slowdown was visible in manufacturing sector and commerce & trade sector (see **Figure 5.23**). While the slowdown in commerce & trade sector was caused mainly by lower growth in imports and relatively depressed activities in the sale of automobiles & motorcycles, the slowdown in the manufacturing sector was concentrated in the textile sector. The latter point is evident from a robust growth of 23.9 percent in working capital loans to manufacturing sector *excluding* textiles during FY07 compared with the growth of 16.6 percent in the preceding year.

Figure 5.23: Contribution in Growth of Working Capital Loans



Within textile sector, most of the slowdown was visible in the spinning sector which does not have access to the concessional finance. This slowdown was caused mainly by a sharp deceleration in export growth, relatively low growth in cotton prices in FY07 and the increase in interest rates.

Working capital loans to rest of the manufacturing sector showed mixed trend. Almost 14 industries experienced a credit growth between 20 to 80 percent compared to 9 industries during FY06. While the increase in interest rates played its role in restricting overall credit demand, the increase in raw material prices has caused an increase in financing requirements in few industries. For instance, higher growth in working capital loans to fertilizer, rice processing and basic iron and steel industries was caused in principal by increase in prices of raw material related with these industries.[16] The high raw material prices in turn reflect, in addition to the pass through of international prices, the persistence of aggregate demand pressures in the economy.

Such pressures may also be found in the cement sector where the working capital growth exhibited a strong growth of 55.8 percent during FY07 over an already high growth of 50.3 percent during FY06. This consistent performance is explained mainly by: (1) the strong cement demand for the reconstruction activities in the earthquake affected areas; (2) growing construction sector demands of the domestic economy;[17] and (3) increase in exports to Gulf countries, Iraq and Afghanistan.

Finally, the growth in working capital loans in the agriculture sector remained very strong during FY07 because of the sector's overall high growth performance and a sharp rise in fertilizer prices, despite subsidy on DAP. It is expected that the growth in agriculture credit will accelerate further going forward as the SBP is taking significant measures to remove credit supply constraints in agriculture as well as number of other sectors (see **Box 5.9**).

Box 5.9: The Restructuring of NCCC: Increased Focus on Removing the Credit Constraints from the Economy

The annual assessment of the credit requirements of government and private sector used to be done by the National Credit Consultative Council (NCCC), since its institutionalization in September 1972. Until the financial sector reforms of 1990s,

[16] The pig iron prices in the domestic market registered a growth of 48.5 percent (YoY) during FY07 compared to a growth of 2.6 during FY06. Seed distribution during FY07 registered a growth of 45.6 percent during FY06 compared to a growth of 19.6 percent during FY05.

[17] Value addition in the construction sector registered a strong growth of 17.2 percent during FY07 compared to a growth of 5.7 percent during FY06.

the NCCC was responsible to draw up the annual credit plan while keeping the annual monetary expansion in accordance with the targets of real GDP and inflation set by the Government. However, after the abolition of credit ceilings and other credit controls in the aftermath of financial sector reforms, the regulatory role of NCCC was changed to a consultative body. Being represented by the all stakeholders of the economy including the SBP, federal/provincial governments, commercial banks, representative of chambers of commerce, industry, and agriculture, the NCCC used to prepare and revise the credit plan after incorporating suggestions/recommendations of all the stakeholders.

It is important to mention here that the role of NCCC in both the pre and post reform period has been limited to prescribing the volume of credit expansion in the economy. For instance, in the period of credit controls, the NCCC used to work out the credit allocations to the private sector on the basis of investment and production targets for different sectors specified in the annual development plan. Similarly, in the post-reform period, especially after the phasing out of IMF PRGF program, the credit plan exercise was limited to aligning the credit targets with broad macroeconomic targets. In specific terms, government budgetary requirements and the increase in net foreign assets were both treated as exogenous variable. Hence the burden of accommodating the overall money supply as per the targeted GDP and inflation falls on the private sector credit.

In this perspective, there was an emerging need to improve the credit demand and supply conditions in the economy by removing impediments in credit availability and widening the access to credit for private sector. This was important because the dynamics of financial infrastructure has changed drastically, especially following the growing emphasis on non-conventional financing tools including the infrastructure & housing finance, Islamic finance, etc.

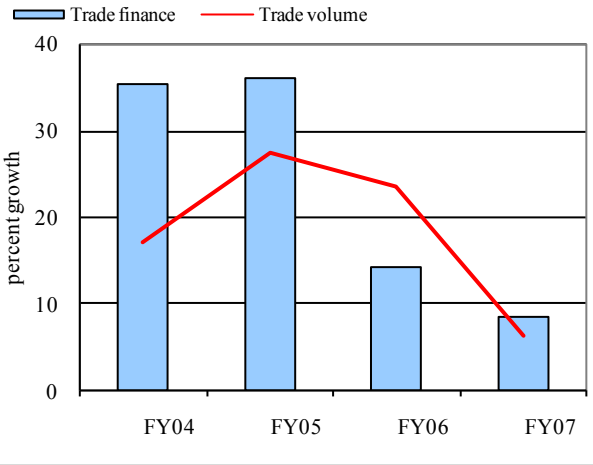
With this background, the NCCC was restructured as the Private Sector Credit Advisory Council (PSCAC). The defined objective of PSCAC is to suggest ways and means to widen the access to credit for private sector to promote economic development in Pakistan. The functions of the council include: (1) reviewing the recent developments related to credit availability to private sector; (2) identifying impediments in credit availability and disbursement for various purposes including project finance, working capital finance, infrastructure and housing finance, consumer finance, SME finance, microfinance, trade finance, Islamic finance and other sectors; as well as (3) reviewing the discussion/proposal of agriculture credit advisory committee (ACAC) related to agriculture credit.

The schedule of PSCAC's meetings has been designed in accordance with the private sector credit cycle. The agenda of the PSCAC's meetings is to focus on the issues pertaining to private sector credit requirements. While the private sector representative will bring to light the credit demand related issues, banks' representatives will come up with credit disbursement related issues. In addition, various specialized departments in SBP including the Agriculture Credit Department (ACD), SME Department (SMED), Micro Finance Department (MFD), Islamic Banking Department (IBD, Infrastructure & Housing Finance Department (IHFD), etc will be involved in formulating the strategy papers on credit supply issues. These papers would constitute not only the issues related to demand and supply of credit and the gap analysis; but will also be suggesting the strategies to be adopted by the SBP and the coordinating activities of the stakeholders. These papers would then be discussed in PSCAC meetings for further consultation from the stakeholders.

3. Trade Finance

In line with the decelerating trade volume, the growth in trade-related loans continued to slowdown to 8.4 percent during FY07 compared to a growth of 14.3 percent during FY06 (see **Figure 5.24**). Most of the slowdown was visible in the export finance.[18] Within the export finance schemes, although, the loans under EFS registered a robust growth of 14.4 percent in FY07 compared with 10.6 percent in FY06, the FE-25 loans (exporters only) registered substantial net retirements that more than offset the higher growth in loans under EFS (see **Figure 5.25**). This suggests that the exporters only substituted their stock of oustanding debt under FE-25 scheme with that of EFS.

Figure 5.24: Growth in Trade Finance

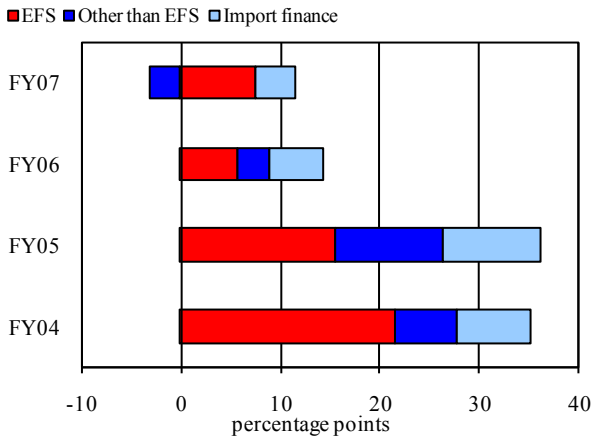


[18] Of the total decline of 5.9 percentage points in trade finance, deceleration in import finance contributed only 1.3 percentage points.

Nevertheless, the *deceleration* in trade finance during FY07 is significantly lower than that in FY06. In specific terms, during FY06, the rise in interest rates on EFS lending had caused a sharp slowdown in EFS loans whereas the upward pressures on exchange rate had caused a sharp slowdown in FE-25 loans. Therefore, the exporters mainly financed working capital requirements through internal cash generation. In FY07, however, the sharp increase in subsidy provided under the EFS scheme did provide some incentive to exporters to borrow from the banking system.[19]

What is evident from the trend in borrowings under EFS in the preceding two years is the fact that the exporters' reliance on EFS depends *only* upon the magnitude of subsidy provided. As such, while the possibility of mis-allocation of these loans due to the distortions in interest rate structure can not be ruled out, the said scheme further complicates the monetary policy conduct by inflating the reserve money growth and increasing the quasi-fiscal cost. In addition, empirical studies also suggest that the EFS scheme did not play its expected role in the promotion of export growth in the economy (see **Box 5.10**).

Figure 5.25: Composition of Trade Finance



Box 5.10: The Adverse Implications of Export Finance Scheme

The export finance scheme has a number of adverse implications for the economy. Foremost is its significant contribution in reserve money growth, which translates into overall monetary expansion. Thus, given that the SBP is currently pursuing contractionary monetary policy, the provision of incentive is posing difficulties for effective monetary management and has a potential to dilute the impact of monetary tightening. It is important to stress that this high reserve money growth in FY07 is expected to spur broad money growth and thus inflation in coming years. This implies that monetary policy will have to be kept tight longer than if EFS was not present.

Secondly, the availability of refinance by SBP provides commercial banks sufficient Rupee liquidity thereby relieving banks from the need to mobilize more Rupee deposits. This in turn translates into lower return on deposits. In fact, the lower deposit rates benefit commercial banks as this means higher spread for the banking system. However, in the longer term, lower return on deposits could potentially lead to disintermediation of financial resources from the banking system and lower saving rates in the economy.

Thirdly, it can be argued that these incentive schemes have distorted the overall interest rate structure in the economy and therefore impeded the market-based resource allocation. In fact, as incentive schemes are open to rent seeking, these have resulted in significant financial loss to the country. The empirical evidence to this argument is provided in a study by Bilal Zia that analyzes the impact and allocation of financial incentives such as subsidized credit to exporting firms by using loan level data from the export sector in Pakistan.[20] According to the findings of the study, the exports of publicly listed and corporate group firms remain unaffected following the removal of subsidized credit. In fact, publicly listed firms make no significant adjustments to their balance sheets, and only their profits are reduced. This indicates that publicly listed and corporate group firms are not financially constrained. However, according to the study, nearly half of all subsidized loans are assigned to such firms, implying a substantial misallocation of credit.

Finally, the impact of these incentive schemes on export performance is also debatable. The study by Nadeem-ul-Haque and Ali Kemal analyzes the impact of export finance scheme on export growth.[21] According to their findings, after controlling for the impact of foreign currency financing available to exporters, the export financing scheme had a negative effect on exports over the long run. Thus, subsidy scheme has not been effective in achieving its objective of increasing exports.

[19] The slowdown in FE-25 loans despite a stable exchange rate reflects the widened spread between effective cost of loans under EFS and FE-25 loans.

[20] Bilal Zia, 'Export Incentives, Financial Constraints, and the (Mis) Allocation of Credit: Micro-Level Evidence from Subsidized Export Loans', Forthcoming, *Journal of Financial Economics.*

[21] Nadeem-ul-Haq and Ali Kemal (2007), 'Impact of Export Subsidies on Pakistan's Exports', Working Paper no. 26 of the Pakistan Institute of Development Economics, 2007.

Going forward, the increase in interest rates in August 2007 is *not* expected to put significant upward pressures on interest rates due to an expected weak transmission of discount rate on kibor (see **Box 5.11**). In addition, the SBP measures to remove the constraints in credit supply to the economy, the high international commodity prices and expected initiation of major power projects during FY08 are likely to strengthen the credit demand from the economy. However, the limited liquidity available through SBP interventions as well as reduced participation of SBP in providing liquidity to the export sector may keep tightened the credit supply conditions. On balance, therefore, the SBP will continue to drain *excess* liquidity in the interbank while ensuring that the sufficient liquidity is available to avoid significant derailing of the growth momentum.

Box 5.11: Pass-through of Discount Rate on Corporate Lending Rates

The policy rates transmit to the corporate lending rates through two channels: (1) interbank lending rate; and (2) Karachi inter-bank offered rate (KIBOR).

1. Through interbank lending rates

The inter-bank lending rate depends on two factors; (1) liquidity in the inter-bank market that includes both the liquid loanable funds as well as other temporary liquidity; and (2) nature of transactions (call or repo). While liquidity in the inter-bank market is mostly managed by the SBP, the nature of the transaction depends upon the availability of tradable securities in the inter-bank market. The higher the volume of tradeable securities in the inter-bank market, larger will be the concentration of repo transactions, and lower will be the aggregate inter-bank lending rates. Thus, despite an increase in discount rate (that would provide room for inter-bank lending rates to move up and increase the borrowing costs for the banks), the dominance of repo transactions among the aggregate inter-bank transactions (amid ample availability of government securities in the inter-bank market) might disallow significant upward pressures on weighted average lending rates.

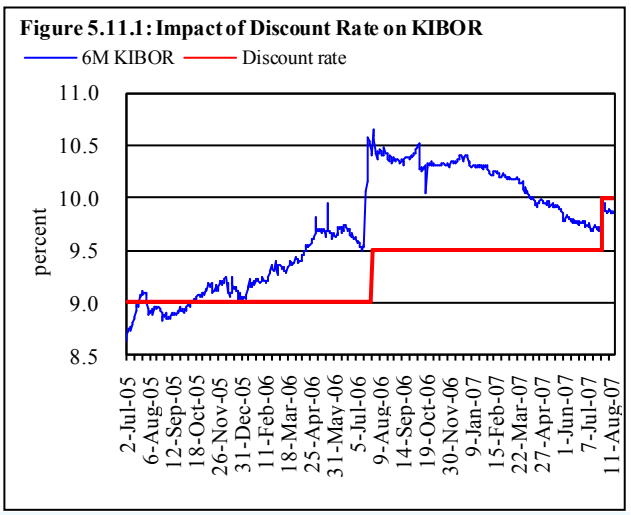
2. Through KIBOR

Corporate lending rate is benchmarked by kibor (of relevant tenor) which in turn depends upon inter-bank lending rates as well as expectations of liquidity in the inter-bank market.

That is why the relationship between kibor and policy rates does not show a consistent pattern. For instance, throughout FY06, while the discount rate was kept unchanged, the 6 month kibor continued trending upwards. This was mainly due to increase in advances to deposit ratio (ADR), a decline in share of repo transactions in aggregate inter-bank transactions and the expectations of liquidity constraints in the inter-bank market.

The increase in discount rate of 50 basis points during July 2006 led to an exaggerated increase of over a 100 basis points in 6 month kibor (see **Figure 5.11.1**). This was mainly because the increase in discount rate came along with the increase in CRR and SLR requirements. As a result, the inter-bank was uncertain of the actual impact on liquidity. However, soon after the increase, the kibor started its downtrend and continued to decline till end of FY07. It is interesting to note that by end-July 2007, the 6 month kibor had reached to end-July 2006 level when the discount rate was increased. It must be noticed that the downtrend in kibor steepened in H2-FY07 further when the ADR reached to all time low. In addition, the significant increase in NFA and the expectations that the inflows would continue to grease the inter-bank market, further brought in a downtrend in kibor.

Figure 5.11.1: Impact of Discount Rate on KIBOR



The continuation of these expectations in FY08, therefore, is likely to prevent significant increases in the kibor. This phenomenon is already evident from the fact that though SBP raised the discount rate in August 2007 further to 10 percent, the market expectations were maintained for the interest rates peaking out. This is evident in a relatively weak response of kibor to the 50 basis points increase in discount rate.

Box 5.12: The Extent of the Relationship between Kibor and WALR

The movements in kibor are considered to be the harbinger of the movements in WALR. This is simply because the kibor is used as a benchmark for determining the corporate lending rates. Since corporate sector lending constitutes the bulk of aggregate bank lending in Pakistan, the WALR follows closely the trend in kibor. Having said this, the relationship between

changes in kibor and changes in WALR showed that the relationship between these two variables appears to be non-linear. In simple terms, changes of very high magnitude in kibor disturb the linear relationship between kibor and WALR. The reason is straightforward. The exorbitant movements in kibor usually result in widening spread between kibor and repo which is typically viewed as a crude proxy of spread between risk based return and the risk free return. In the absence of major changes in credit risk in the economy, this widened spread suggests that such changes in kibor are not based on macroeconomic fundamentals of the economy and could probably appear due to uncertainties in liquidity flows in the inter-bank market. In this perspective, wild movements in kibor are usually considered as temporary and therefore are not typically translated in WALR.

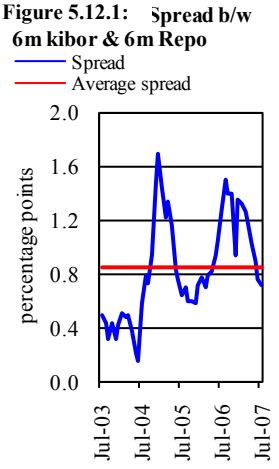
Table 5.12.1: Impact of Changes in Kibor on Changes in WALR

Dependent Variable: Change in WALR
Method: Least Squares
Included observations: 40 after adjustments (Feb 04 - Jun-07)

	Eq 01		Eq 02	
Variable	**Coeff**	**t-stats**	**Coeff**	**t-stats**
D(WALRI(-1))	0.46	3.55		
D(WALRI(-2))	0.26	2.08	0.58	7.33
D(KIBOR)	0.09	2.92	0.07	2.12
D(KIBOR(-1)			0.09	2.74
D(KIBOR(-2))	0.09	2.83	0.15	3.43
D(KIBOR(-2)*dummy			-0.11	-1.70
R-square	0.74		0.72	
Durbin-Watson stat	1.88		1.67	

As shown in the **Figure 5.12.1**, the spread between kibor and repo rates hovers around 0.85 percentage points. Although there appear some wild movements in the spread but eventually the spread comes back to the average. Interestingly, in the very same periods, the relationship between kibor and lending rates appears weak. As such, there exists a negative relationship between the spread between kibor and repo and the spread between kibor and WALR. This suggested that the average spread between kibor and repo plays an important role in developing the relationship between kibor and WALR.

Figure 5.12.1: Spread b/w 6m kibor & 6m Repo



Relationship with Spread b/w WALR & 6m Kibor

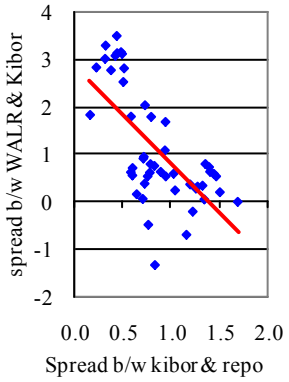
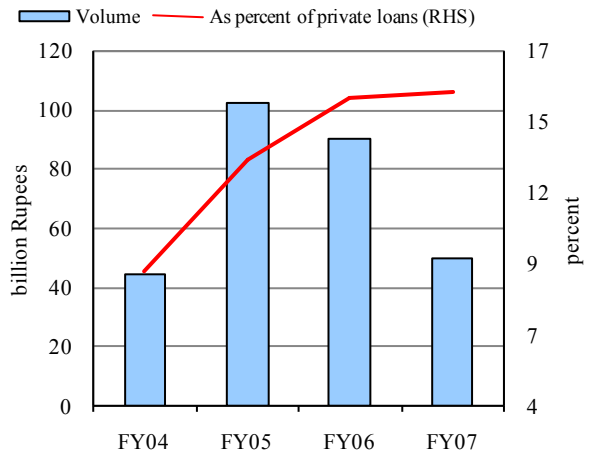


Table 5.12.1 provides empirical evidence to this notion wherein changes in WALR are determined by the past movements in WALR, present and past changes in kibor. The equation was further augmented by introducing a dummy variable that takes the value of 1 when the deviation from mean of the spread between kibor and repo goes above the average, and the value of 0 when it remains below the average. The said dummy variable was then interacted with the changes in kibor. As expected, the sign of interacting dummy appeared negative suggesting that if the changes in kibor exceed the average spread between kibor and repo rates, the impact of kibor on WALR declines.

Consumer Loans

The growth in the consumer loans slowed down to 19.5 percent during FY07 compared to a growth of 43.8 percent in FY06; the lowest growth during the preceding four years. Nevertheless, the share of consumer loan in the overall loans to private sector increased slightly to reach 15.8 percent during FY07 compared to 15.5 percent during FY06 (see **Figure 5.26**).

Figure 5.26: Consumer Loans



The major factors responsible for a slower growth in consumer loans included: (1) increase in lending rates; (2) high credit standards following the increase in NPLs to advances ratio within the consumer loans category (see **Figure 5.27**); (3) restrained lending by a few commercial banks in order to streamline their risk management systems as per the

international best practices; and (4) mandatory use of credit profile of the borrowers through the use of credit information bureau (CIB) of the SBP.

Therefore, the weakness in consumer loans during FY07 was broad-based as all the major categories exhibited a slowdown. However, the largest deceleration was visible in car financing, the growth of which slowed down to 7.8 percent during FY07 from its phenomenal growth of 48.5 percent during FY06 (see **Figure 5.28**).

In addition to the supply side factors, a relatively saturated automobiles market also resulted in overall slowdown in automobile sales in the country during FY07. Moreover, the mandatory requirement of installation of tracking devices for car financing by certain car insurance companies has increased the effective cost of automobile loans, thus further restraining the credit demand.[22]

As far as the housing loans are concerned, banks have been very cautious in their lending strategy in housing sector. This is evident from the fact that out of 39 commercial banks in the country, only 14 banks have an exposure of (over) Rs 1.0 billion in the housing sector.

As such, at present, the banks' housing finance portfolio is far below the limit prescribed by the Central Bank. In specific terms, while the SBP has allowed banks to limit their exposure in housing finance to 10 percent of the net loans, most of the banks did not exhaust even half of the limit (see **Figure 5.29**).

This limited exposure of the banks in housing finance is caused mainly by:

1. Lack of expertise and resources in domestic banks to exploit the business potential in this area.
2. Due to the average short term maturity of bank deposits, banks can not sustain leveraging their deposit base in the long run. This is also evident in average maturity of housing loans of 10 to 15 years, despite the maximum

Figure 5.27: NPLs to Loan Ratio in Consumer Finance

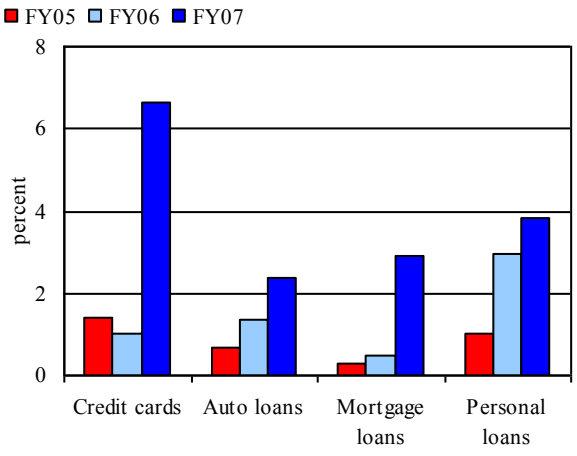


Figure 5.28: Composition of Consumer Finance

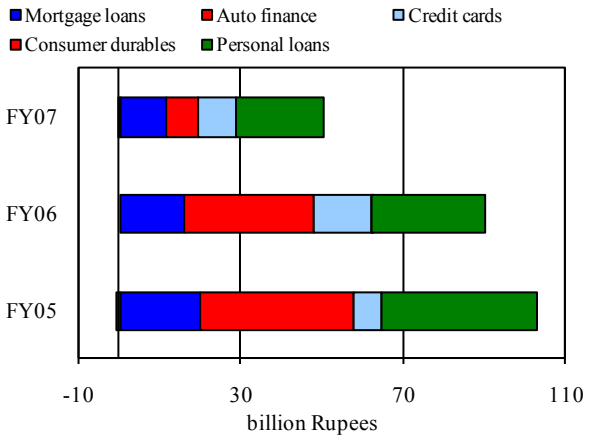
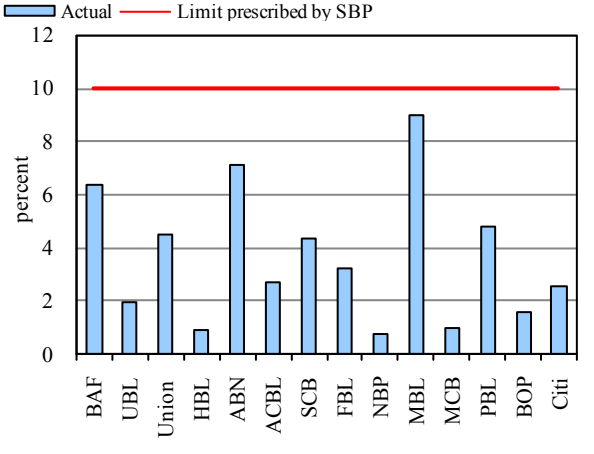


Figure 5.29: Banks' Exposure in Housing Finance



[22] To remove this restraint, a few commercial banks have started providing installation of car tracking devices to their customers free of cost.

allowable maturity of 25 years by the SBP.

3. The construction loans are more difficult to finance due to the absence of verifiable collateral. This is evident from the composition of total housing loans where construction loans constitute only 19.8 percent.

5.3 Financial Soundness Indicators

While the overall monetary indicators raised a few concerns from inflationary perspectives, financial soundness continued to exhibit improvement. More importantly, though the rise in interest rates did create some impact on the quality of loans, the stringent provisioning requirements as well as increased capital requirements did not allow the impact of loan quality on financial stability of the banking institutions. Not only, did banks remain adequately capitalized but the overall asset quality measured in terms of NPLs to loan ratio (net of provisioning) continued to decline. As such, the performance of the domestic banking industry continued to exhibit improvements and especially remained at par with the peer countries in the South Asian region (see **Box 5.13**).

Box 5.13: Performance of Pakistan Banking Industry Compared with Other Asian Countries

The landscape of Pakistan's banking industry has changed altogether since the financial sector reforms 1991 onwards. At present, the financial soundness of the banking industry, as measured by the capital adequacy and asset quality indicators, is almost at par with the peer countries.

Capital to risk weighted assets ratio which was amongst the lowest in the region during 2001, has increased sharply and the current ratio of 12.7 percent exhibits that the domestic banking institutions are adequately capitalized. More importantly, the increase in CAR during the last five years came along with a robust credit growth. Specifically, the banks achieved a higher CAR by raising capital instead of reducing risk weighted assets. Among all the Asia countries reported in **Table 5.13.1,** India, Malaysia and Indonesia were the only countries that observed a slight decline in CAR during 2006. While the sharp credit growth during the year was responsible for decline in CAR in these the countries, the decline in CAR in India was also contributed by other structural factors. These included the application of capital charge for market risk March 2006 onwards and the increase in risk weights for personal loans, real estate and capital market exposures. The decline in CAR in Malaysia stemmed mainly from sharp fluctuations in the net open foreign currency position (NOP) (following from the adoption of flexible exchange rate regime in 2005).

Non-performing loans to advances ratio in Pakistan has also improved substantially in recent years but is still higher than India and Korea. However, this high ratio does not indicate a concern for financial soundness since most of the NPLs have been adequately provided for. As shown in the **Table 5.13.1**, provisioning has already been done for 77.8 percent of the total NPLs which is indeed quite significant when compared to other economies in Asia. As such, the net NPLs to net loan ratio in Pakistan at 1.6 percent is very much compatible to 1.2 percent in India at end 2006.

Table 5.13.1: Financial Soundness Indicators

in percent

	2001	2002	2003	2004	2005	2006
Capital to risk weighted assets						
Bangladesh[1]	6.7	7.5	8.4	8.8	7.3	8.0
India [2]	11.4	11.9	12.9	13.4	12.8	12.4
Malaysia [3]	13.0	13.2	13.8	14.3	13.7	12.7
Pakistan [2]	8.8	8.8	8.5	10.5	11.3	12.7
Korea [2]	11.7	11.2	11.1	12.1	13	13.3
Thailand [3]	13.3	13	13.4	12.4	13.2	14.3
Indonesia [2]	18.2	20.1	22.3	19.4	19.3	19.2
NPL to advances						
Bangladesh[4]	31.5	28.1	22.1	17.6	13.6	13.2
India [5]	11.4	10.4	8.8	7.2	5.2	3.3
Malaysia [3]	17.8	15.9	13.9	11.7	9.6	8.7
Pakistan [2]	23.4	21.8	17	11.6	8.3	7.7
Korea [2]	3.4	2.4	2.6	1.9	1.2	0.9
Thailand [2]	11.5	16.5	13.5	11.9	9.1	8.9
Indonesia [2]	31.9	24	19.4	14.2	15.6	16
Provisioning to NPL						
Bangladesh[1]	--	--	18.3	18.9	25.3	26.3
India [5]	--	--	46.4	56.6	60.3	58.9
Malaysia [3]	37.6	38.1	38.9	41	45.4	50.1
Pakistan [2]	54.7	60.6	63.9	70.4	76.7	77.8
Korea	--	--	--	--	--	--
Thailand [2]	47.1	62.9	72.8	79.8	83.7	79.4
Indonesia[4]	--	130	137.5	138.1	60.1	--

Note: Superscripts show the data for the following months.
[1]June, [2]Sep, [3]Nov, [4]Dec, [5] Mar

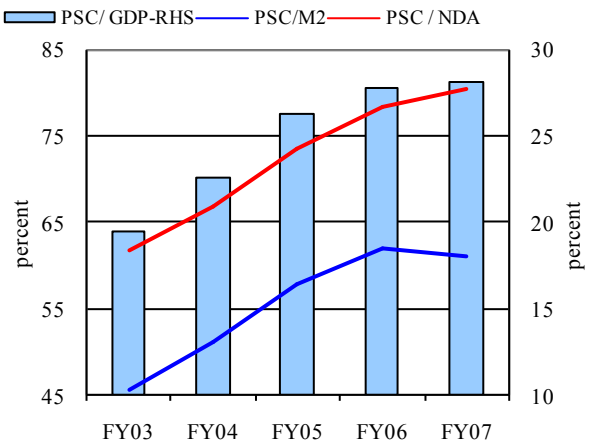
The decline in NPLs to advance ratio in India during the year 2006 was caused mainly by increased recovery and decline in fresh slippages. An important aspect of higher recoveries in India is the establishment of Asset reconstruction Company (India) limited in 2003 with the objective of 'focused management' and 'maximization of NPLs' recovery' which has provided a major boost to the efforts of NPLs' recovery. In Malaysia also, the higher interest rates and inflationary pressures in the economy did not appear to have weakened the debt servicing capacity of both the households and businesses mainly on the back of sustained encouraging economic environment, amidst progressive strengthening of risk management practices and infrastructure by banking institutions.

Source:
Global Financial Stability Report April 2007, International Monetary Fund.
Reports of trend and progress in India 2005-2006, Reserve Bank of India.
Financial Stability Report Bank Indonesia, March 2007, Bank Negara Malaysia.

1. Financial Allocative Efficiency

It is generally believed that the utilization efficiency for a given amount of credit is higher for the private sector compared to the government. On the basis of this, private sector credit (PSC) to M2 ratio is widely used as an indicator of financial allocative efficiency. It appears that during FY07, financial efficiency has deteriorated slightly as evident from declining PSC to M2 ratio (see **Figure 5.30**). However, this decline was caused entirely by a sharp increase in share of NFA of the banking sector in M2. Thus, it will be appropriate to use PSC to NDA ratio to compare the relative allocation of banks' financial sources in private sector and government credit. The PSC to NDA ratio has continued its uptrend during FY07 suggesting that the financial efficiency has increased further during FY07.

Figure 5.30: Indicators of Financial Efficiency



Another widely used indicator of financial efficiency is PSC to GDP ratio that measures the extent of economic activities that are financed through the banking system. The increase in PSC to GDP ratio confirms further the growing level of financial intermediation in the economy. However, it must be noticed that the PSC to GDP ratio, though increased, is still lower than most of the economies in the Asian region (see **Table 5.5**). In literature we can find a number of reasons for variations in Credit to GDP ratio across countries. Most of the variations emerge from difference in legal infrastructure, set up of information sharing institutions, financial sector development, banking penetration, availability of credit rating agencies, recovery rates and market expansion.

Table 5.5: Credit to GDP Ratio

	1996	2000	2005
South Asia			
Pakistan	24.7	22.5	28.3
India	23.9	28.8	41.2
Sri Lanka	29.9	28.8	32.8
BD	21.6	24.7	31.7
South East Asia			
Indonesia	55.5	19.9	24.6*
Korea	57.1	81.0	93.5
Philippines	49.0	39.0	25.2*
Malaysia	142.0	140.0	113.2*

***2006**
Source: International Financial Statistics

2. Banking Spread

The banking spread, as measured by the difference between weighted average lending (WALR) and deposit rates (WADR), declined slightly by 14 basis points during FY07 after following a rising trend in the preceding three years (see **Figure 5.31**). More importantly, if the impact of non-remunerative deposits is excluded from the WADR, the *decline* in banking spread appears more pronounced (at 50 basis points) during FY07.[23]

[23] Although, the personal deposits continued to constitute the bulk of increase in bank deposits during FY07, the increase in business sector deposits outpaced the increase in personal deposits. Since most of the business sector deposits are placed in non-remunerative current account for the purpose of meeting day to day transactions, these deposits yield low returns.

The decline in spread was caused by a sharp slowdown in personal loans (that generally yield higher returns) and increase in the share of concessionary credit during FY07 (that kept WALR from increasing sharply). In addition, the pass through of previous increases in policy rate on WADR, the increase in share of fixed deposits in total bank deposits and the moral suasion by the SBP to raise WADR had caused an increase in deposit rates by almost all the major banks.

The latter is also evident in the increasing share of high yielding deposits in aggregate bank deposits during FY07 (see **Figure 5.32**). As shown, the share of deposits mobilized at over 8 percent return in the incremental deposits has remained 32.0 percent on average which took the share of these deposits in outstanding deposits to 23.5 percent in June 2007 compared with 11.9 percent at end-June 2006.

However, it must be noticed that the increase in policy rate during August 2007 can render the welcome decline in banking spread during FY07 short-lived. This concern stems from asymmetric impact of policy rate on WALR and WADR. Specifically, the delays in transmission of policy rate on WADR (especially in times of monetary tightening) compared with WALR widens the spread in times of monetary tightening. This said, the tight liquidity conditions in the inter-bank market August 2007 onwards, attractive returns offered by mutual funds and NSS instruments and the lower CRR requirements on longer tenor deposits will force banks to offer reasonable real returns to their depositors. As such, the relationship between policy rate and banking spread may not necessarily be significant.

Figure 5.31: Banking Spread

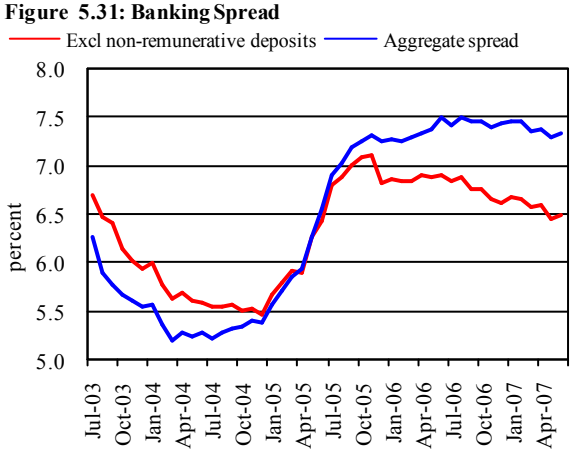


Figure 5.32: Share of Deposits Mobilized at 8.0 Percent (or above) Rate of Return in Total Deposits

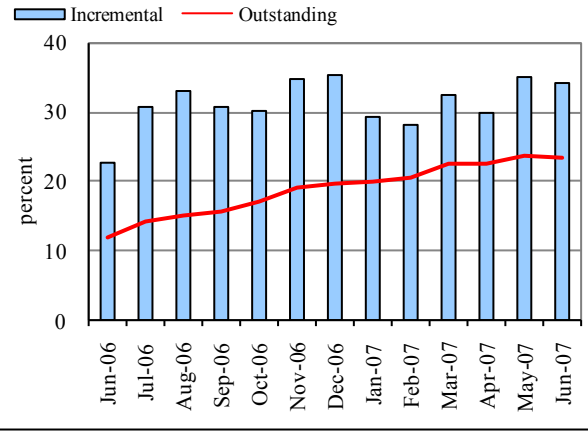
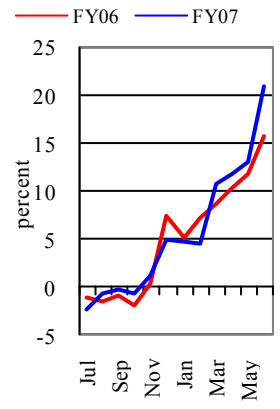
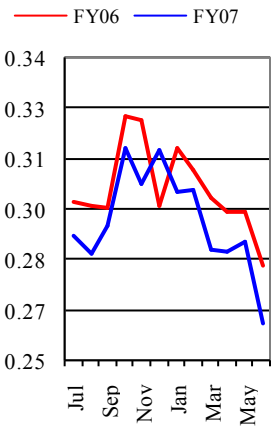


Figure 5.33: Cumulative Deposit Growth



Currency to Deposit Ratio



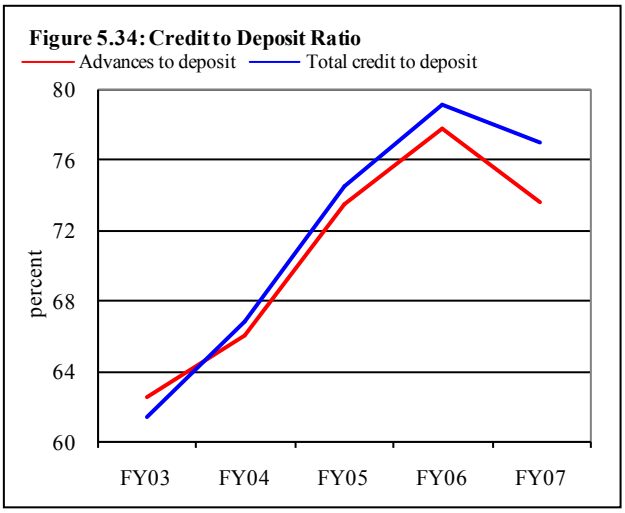
3. Liquidity with the banks

The liquidity in the banking system is gauged principally by (1) the extent of deposit mobilization during the period, and (2) credit expansion relative to the deposit mobilization.

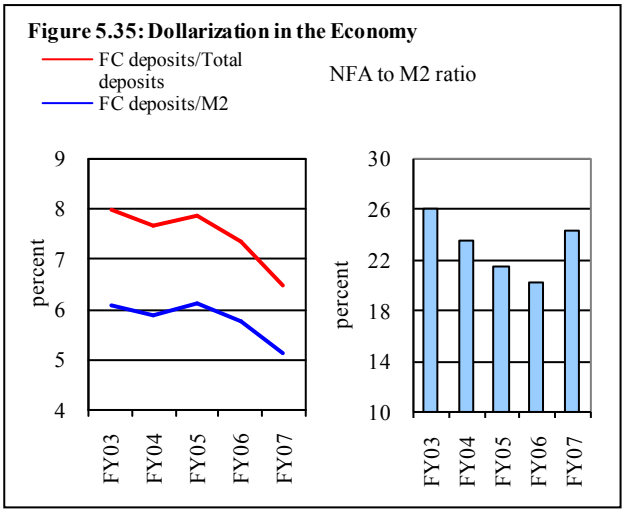
Deposit base of the banking industry increased by 20.9 percent during FY07 compared to a growth of 16.2 percent during FY06 (see **Figure 5.33**). Strong growth in banking sector deposits is attributable to a number of factors including high GDP growth, high workers' remittances growth, more aggressive marketing of deposit products by the banks, increases in weighted average deposit rates as

well as the expansion in network and usage of automatic tellers machines (that lower the need for precautionary cash holdings).

More importantly, the longer tenor deposits registered substantial increases though most of the increases in the deposits were visible under current and savings account categories. Indeed, the sharp growth in longer tenor deposits bid well for the banking sector liquidity. The increase in fixed-longer tenor deposits during FY07 was caused by the relaxation in CRR requirements provided by the SBP on longer tenor deposits which induced banks to raise returns on these accounts and increase marketing campaigns to mobilize longer tenor deposits.

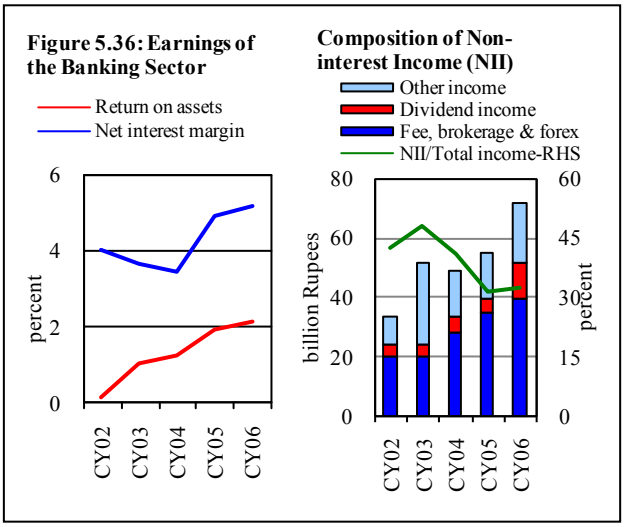


Credit to deposit ratio is another indicator that reflects the liquidity comfort of the banking system. As shown in **Figure 5.34**, both the credit[24] and advances to deposit ratio have declined significantly during FY07. This decline is mainly a result of slowdown in overall private sector credit due to tight monetary policy stance of SBP. Furthermore, the gap between advances to deposit ratio and the credit to deposit ratio has widened during FY07 mainly because of increase in investment component of the total credit.



4. Dollarization in the Economy

The dollarization in the economy, as measured by the share of foreign currency deposits in total bank deposits as well as in M2, has declined substantially during FY07. The expectations of Rupee appreciation against the US Dollar following the substantial foreign exchange inflows and relatively higher returns on Rupee deposits are the key reasons for the declining level of dollarization in the economy (see **Figure 5.35**).



5. Profitability

Earnings of the banking industry improved further during CY06 as evident in a continuous uptrend in return on assets (ROA) (see **Figure 5.36**). However, the composition of banks' earnings was slightly different in CY06 compared with the preceding year. In specific terms, the share of non-interest income in total income has increased slightly during CY06. This was

[24] The credit includes advances, bills and investments in the private sector stocks (including shares, TFCs, etc).

mainly on the back of (1) a sharp increase in dividend income of banks during CY06; and (2) a sharp deceleration in net-interest income.

While the increase in dividend income of banks reflects improved earnings of the corporate sector, the deceleration in net interest income was caused by; (1) deceleration in high yielding loans (e.g., personal loans) during CY06; and (2) increase in the share of fixed deposits in total bank deposits. In addition, the delayed transmission of the previous increases in policy rate on deposit rates also appeared to have caused an increase in interest expenses of the banking sector during CY06 (see **Box 5.16**).

This point can further be explained from the fact that during CY05, the increase in actual interest expensed on deposits was caused primarily by the increase in volume of deposits. However, in CY06, 81 percent of the *increase* in interest expensed on deposits came from the increase in deposit rates while the remaining 19 percent came from the increase in volume of deposits. The analysis of interest income, however, shows that the rise in interest income during CY06 came equally from both, the increase in volume as well as increase in interest rates.

Finally, the increase in the share of concessionary trade finance amid decelerating aggregate loans during FY07 has further dragged down banks' profitability. This is evident from a decline of 10 basis points in net interest margin during Jan-Jun 2007 compared with the corresponding period of the preceding year (see **Box 5.17**).

Box 5.14: Asymmetric Impact of Changes in Policy Rate on Deposit Rates

The recent research suggests that the changes in 6-months T-bill rates takes about 5 months to complete the pass through to the WALR and almost 10.1 months to complete the transmission to weighted average deposit rates[25] In addition, both the instantaneous and long term coefficient of WADR is considerably lower than that of WALR. Therefore, it can be argued that the relatively weaker transmission of policy rate on weighted average deposit rates has been a key factor in increasing the banking spread in last two years.

However, this must be noted that while the decline in spread during monetary policy loosening was gradual, the increase in spread during tight monetary policy was rather sharp. This phenomenon is explained mainly by the asymmetric impact of changes in policy rate on deposit rates. In simple terms, the transmission of policy rates on deposit rates is low in times of monetary tightening and high in times of monetary easing.

These differing responses of deposit rates on policy changes can be explained by a number of factors including the structure of banking industry, transaction costs and depositors' behavior. In specific terms, a high level of concentration in the
banking industry allows banks to raise the deposit rates slowly in response to changes in policy rates and vice versa. Similarly, high transaction costs discourage customers to switch deposits from one bank to another even if they wish to earn higher returns.

To capture this asymmetry in Pakistan, a simple equation

Table 5.14.1: Impact of Benchmark Rate on WADR

Dependent Variable: Changes in weighted average deposit rates
Method: Least Squares
Sample: 2002M10 2007M04 Included observations: 55

	Coefficient	Prob.
C(1)	0.94	0.00
C(2)	0.06	0.16
C(3)	0.27	0.01
C(4)	0.23	0.00
R-square	0.63	
Durbin-Watson stat	1.87	

Table 5.14.2: Impact of Benchmark Rate on Variance of WADR

Dependent Variable: Changes in weighted average deposit rates
Method: ML - ARCH
Sample: 2002M10 2007M04 Included observations: 55

	Coefficient	Prob.
DWADR(-1)	0.21	0.02
DWADR(-2)	0.22	0.00
DWADR(-3)	0.15	0.00
D(TBILL(-2))	0.08	0.01
	Variance Equation	
C	0.00	0.00
RESID(-1)^2	-0.13	0.00
RESID(-1)^2*(RESID(-1)<0)	0.02	0.04
GARCH(-1)	1.08	0.00
R-square	0.62	
DW stat	1.89	

[25] See **Financial Sector Assessment Report 2005** Chapter 3 for details.

was estimated of the form

$$\Delta WADR = (C(1)* \Delta WADR(-2)+C(2)*(\Delta(TBILL(-1)))*(\Delta TBILL(-1)>0)+(C(3)* \Delta(WADR(-2) +C(4)* (\Delta TBILL(-1)))*(\Delta TBILL(-1)<=0)$$

Suggesting that when C(2) is not equal to C(4), there exist asymmetries. The results are presented in **Table 5.14.1.** The data on weighted average deposit rates from July 2002 to June 2007 confirms the asymmetry in the impact of changes in benchmark rate on deposit rates in time of expansionary and contractionary monetary policy. Specifically, the impact on deposit rates appeared stronger when the benchmark rates declines and weaker when the benchmark rates increases.[26]

Further, a threshold generalized autoregressive conditional hetroskedastic (TARCH) model was used to capture the asymmetric impact of policy changes on variance of deposit rates. The results were similar to those obtained earlier. As shown in the **Table 5.14.2**, the variance of changes in deposit rates increases when the policy stimulus is downward.

Box 5.15: Impact of EFS on Net Interest Margin (NIM)

While announcing the level of refinancing rate for EFS scheme, the SBP also puts a ceiling on the margin that the banks can earn when they lend to the export sector. This margin was constant at 1.5 percent throughout FY02 to FY06 after which the SBP lowered the margin to 1 percent during July 2006 with an objective of further subsidizing the credit for exporters.

The margin of 1 percent indeed is quite low compared with an average net interest margin of 4.2 percent in the last five years. Therefore, it seems possible that when the share of EFS increases in total banks' earning assets, the net interest margin squeezes.

To check this hypothesis, cross section data was used for 32 banks in Pakistan for the period of 10 years, i.e., 1996 to 2006. A few macroeconomic and bank specific factors were used to explain the changes in NIM (calculated as the net interest income divided by average earning assets). While the impact of macroeconomic performance was captured through the growth in real GDP, the weighted average lending rates were used to capture the trends in interest rates. Four bank specific factors were used including; (1) the NIM in the previous year; (2) average cost of deposits and borrowings: (3) share of export finance in total assets (EFSA); and (4) non-interest income to total assets. The results are shown in **Table 5.15.1**.

Table 5.15.1: Impact of EFS on NIM of Banks

Panel Least Squares

Variable	Coefficient	t-Statistic
Constant	-0.07	-0.09
Net interest margin (-1)	0.42	8.61
Share of EFS loans in total assets(-1)	-0.04	-2.23
Real GDP growth	0.18	2.62
Average cost of deposits & borrowings	-0.24	-4.20
Weighted average lending rates	0.27	4.40
Non-interest income to total assets	-0.15	-2.59
Cross-sections included: 32	Adj R-sq	0.31
Total panel (unbalanced) obs: 314	DW stat	1.81
	Prob (F-stat)	0.00

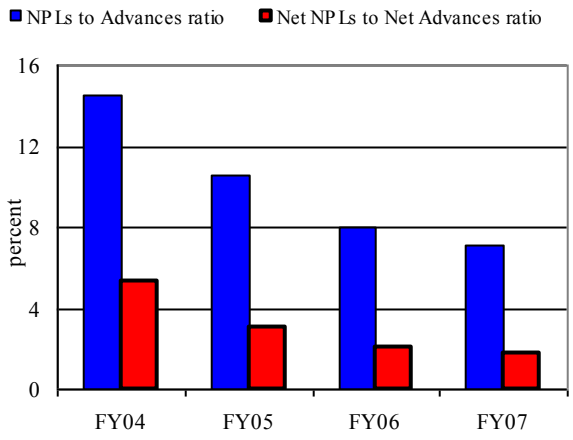
As expected, the sign of EFSA was negative suggesting that higher the share of export finance in banks' portfolio, lower will be their net interest margins. The results further suggest that increase in non-interest income allows banks to squeeze the interest margins. In contrast, higher GDP growth and increasing lending rates in the economy increase the NIM.

6. Asset Quality

The asset quality of the banking industry improved further in FY07 as both the net NPLs to net advances ratio and gross NPLs to advances ratio showed a consistent decline (see **Figure 5.37**). The declining NPLs ratio coupled with the increase in capital base of the banking sector has resulted in a decline in vulnerability of banks' financial soundness to the asset quality.

Having said this, the increase in interest rates and aggressive loan growth in recent years

Figure 5.37: Asset Quality of Banks

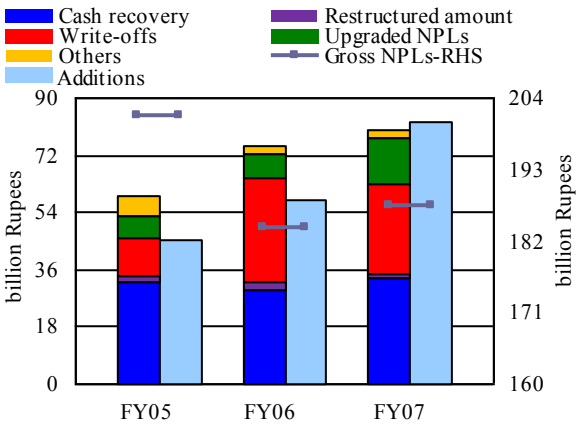


[26] It is important to mention here that the results obtained did not produce residuals that pass the normality test mainly due to the inclusion of overnight rates into deposit rates until July 2003. When the similar exercise was repeated using the data from 2003 onwards, the results remained more or less the same but residuals passed the normality tests.

have caused a slight deterioration in the quality of loans as the gross NPLs witnessed a growth of 3.9 percent during FY07 compared with a decline of 8.7 percent in the preceding year.[27] Although the additions in NPLs during FY07 were slightly higher than the reductions in NPLs during FY07 (see **Figure 5.38**), the composition of the latter during FY07 showed improvement over the preceding year. Specifically, the reductions in NPLs constituted mainly of cash recoveries and upgraded NPLs during FY07 compared with FY06 when the write-offs constituted most of the reductions. More importantly, the cash recoveries grew by 11.2 percent in FY07 after having declined in the preceding year.

The disaggregated data of NPLs by sectors shows that while the corporate sector had the largest contribution in the gross NPLs' growth during FY07, the quality of consumer loans appears to have deteriorated most. In specific terms, the gross NPLs in consumer loan category at end-FY07 were more than double the same at end-FY06. Moreover, consumer loan was the only category where the NPLs to loan ratio has actually increased by 1.7 percentage points during FY07. Although this increase was explained largely by the aggressive lending activities of banks in recent years as well as increase in interest rates, a part of the deteriorating asset quality was caused by restructuring of the banking sector.

Figure 5.38: Movements in NPLs and Trend in Gross NPLs



Specifically, the sharp increase in NPLs of consumer loans was visible mainly in one formerly foreign bank that acquired a domestic private bank during FY07. Since the acquiring bank follows a more conservative approach in classifying loans under NPLs, such loans were also classified under NPLs which were reported as performing loans by the acquired bank earlier. This is evident from the fact that adjusting for these banks, the *increase* in NPLs to loan ratio during FY07 narrows to 0.9 percentage points.

5.4 Money Market

In line with SBP's monetary policy stance to curb the inflationary pressures by reducing excess demand from the economy, SBP kept tight liquidity conditions in money market throughout FY07. The focus of SBP's monetary management was to improve the transmission of policy rates on the retail rates by draining excess liquidity from the money market and keeping the overnight rates close to the discount rate.

Developments in the Debt and Money Market

The developments in the money market during FY07 can be categorized into two phases because of change in market behavior based upon expectations regarding interest rate scenarios and the liquidity conditions.

First phase

The first phase that constitutes the first half of FY07 is categorized by (1) lower Rupee liquidity as reflected in higher credit to deposit ratio, and (2) uncertainty regarding response of market rates to increase in the policy rate and the reserve requirements.

[27] NPLs from domestic operations registered a growth of 3.9 percent during FY07 whereas NPLs from total operations (both domestic and overseas) registered a growth of 1.9 percent during FY07.

This uncertainty in the interest rate movements was also evident in very low participation by commercial banks in the T-bill auctions. In fact throughout H1-FY07, SBP set the T-bill auction target in such a way that not only all the maturities are rolled over but some additional liquidity may also be drained out of the money market. But due to credit off-take season and a rising differential between repo rates and Kibor, market players did not find it attractive to invest in government papers. Consequently, SBP was not able to even roll over all the T-bill maturities (**Table 5.6**).

In addition to these maturities, the one-time swap facility offered to the textiles sector for their outstanding loans under LTF-EOP scheme injected substantial liquidity into the money market. To mop up these inflows, the SBP increased the frequency of OMOs. Furthermore, the reintroduction of outright OMOs in September 2006 helped SBP in mopping-up excess liquidity from the money market for relatively longer periods of time.

Table 5.6: Auction Statistics FY07
billion Rupees

	Target	Offered	Accepted
H1	512.0	524.7	411.9
H2	246.0	553.1	486.9
	Net off maturities		
H1	62.4	75.0	-38.0
H2	50.02	357.1	290.9

As a result, not only the overnight rates remained very close to the discount rates but the volatility in the rates also declined. The impact of SBP's liquidity management is also evident in upward movement in the weighted average lending rates.

Second phase

During second half of FY07, inter-bank money market witnessed relatively more liquidity inflows (on account of high deposit growth in the banking sector, increased foreign exchange inflows and a slowdown in credit to private sector). Due to lack of alternative investment avenues, commercial banks started to aggressively invest in the government securities. In the meantime, huge absorption through OMOs had caused a sharp increase in repo rates that ultimately reached close to 12-month auction cut off rate during March FY07. This necessitated an upward revision in auction cut off rates (see **Figure 5.39**), thereby further igniting commercial banks' interest in government papers.

Figure 5.39: Open Market Operations

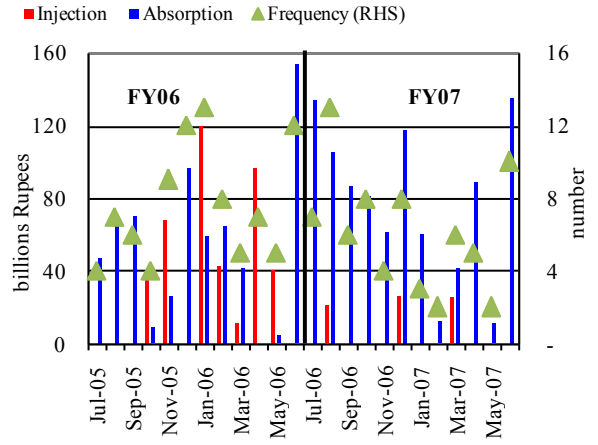
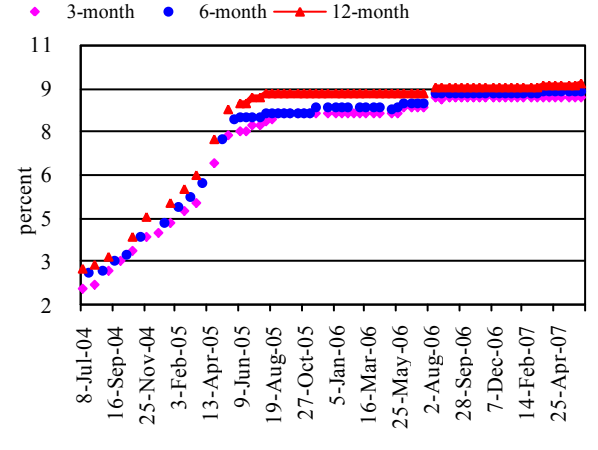


Figure 5.40: Auction Cut-off Rates



Since commercial banks were of the view that the interest rates in the economy have peaked out, they started investing heavily in 12-month government paper. This enabled SBP to mobilize more than Rs 290 billion net off maturity for the government (for reasons, see **Box 5.16**). In the wake of high participation of banks in auctions, there was a visible slowdown in the number of OMOs conducted during H2-FY07 (see **Figure 5.40**). However, SBP remained very vigilant to unanticipated liquidity injections in the money market and conducted even 2-day OMOs to pick up the

intra day liquidity. Money market's tight liquidity conditions can also be gauged from the fact that the commercial banks availed a large amount of Rs 393 billion from the discount window of SBP during H2-FY07 compared to Rs 285.2 billion during H1-FY07.

Ironically, December 2006 onwards, the tight liquidity conditions coincided with a softening of Kibor. Many market players were of the view that the softening in Kibor reflects the laxed liquidity management but the analysis suggests that although the recent softening is partially explained by a low advances to deposit ratio, the level of kibor appears to be converging to its long term trend.

Box 5.16: Why Commercial Banks are investing in 12-Months T-bills

From October FY07 onwards, commercial banks are placing most of their offers in 12- months' paper in the T-bills auctions (see **Figure 5.16.1**). Following are some of the reasons for this behavior of commercial banks:

1- The market was expecting that the overall interest rates in the economy have peaked out and there will be no further interest rate hike in the economy.
2- The 12-month T-bills were providing the highest interest earnings with zero risk in the short run.
3- Another reason for the commercial banks to invest in 12-month T-bills relates to the movements in the yield curve in repo market. During Dec-05, when the yield curve was steep, the commercial banks borrowed aggressively in the short term and invested in the long term. During March FY07, average one week repo rate was higher even the 3-months repo rate.[28] This borrowing pattern in the money market by the commercial banks is also visible in the relative flattening of the repo market yield curve in June FY07 (see **Figure 5.16.2**).

Figure 5.16.1: Monthly Offers in T-bills of Different Tenors

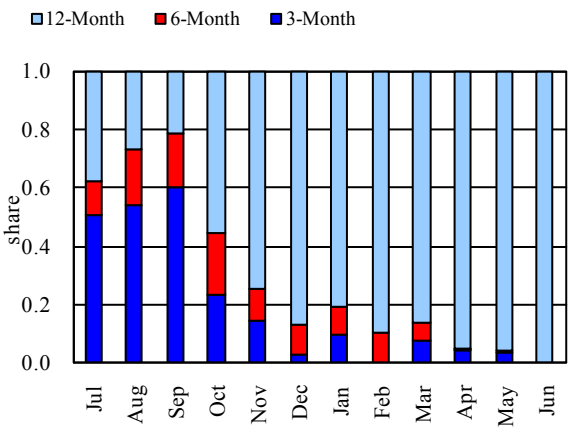
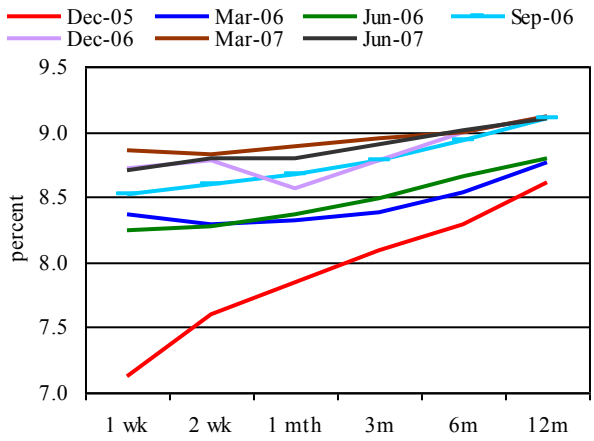


Figure 5.16.2: Repo Market Yield Curve



Pakistan Investment Bonds

During FY07, government issued its 30-year long term bond; a major breakthrough for extending yield curve and for developing a benchmark for housing/mortgage/infrastructure instruments market in Pakistan. The delays in issuance of PIBs from 2004 onwards not only posed problems for financial institutions in managing gap between their long term assets and liabilities but also hampered the secondary market trading. Government of Pakistan successfully conducted five PIB auctions during FY07 by re-opening previous issues along with making new issues including 30-year PIBs. Bids of Rs 87.9 billion were accepted in different tenors against the target of Rs 80.0 billion (including Rs 48.7 billion as fresh loans and Rs 39.2 billion of FIB/PIB roll over – see **Table 5.7**).

Aggressive participation of different institutions in the PIB auctions not only helped government in achieving its target but has also helped in developing conditions for a vibrant secondary PIB market.

[28] This increase in one week and two week repo rates in the money market was also one of the reasons for SBP to increase open market operations cut off rates and further the T-bills cut off rates.

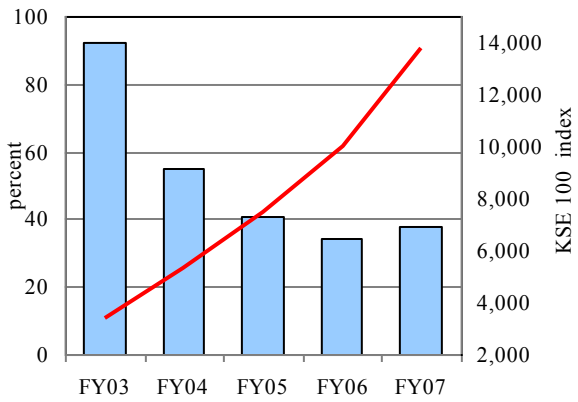
Table 5.7: PIB Auction Profile
billion Rupees

		3-years	5-years	10-years	15-years	20-years	30-years	Total
	Matured	9.651	5.317	-	-	-	-	14.968
FY06	**Accepted**	3.205	4.608	3.424	-	-	-	11.237
	Excess/deficit	6.445	0.709	3.424	-	-	-	-3.731
	Matured	14.533	24.982	-	-	-	-	39.212
FY07	**Accepted**	10.882	10.174	30.211	9.25	11.25	16.1	87.867
	Excess/deficit	3.651	14.509	30.211	9.25	11.25	16.1	48.652

5.5 Capital Markets

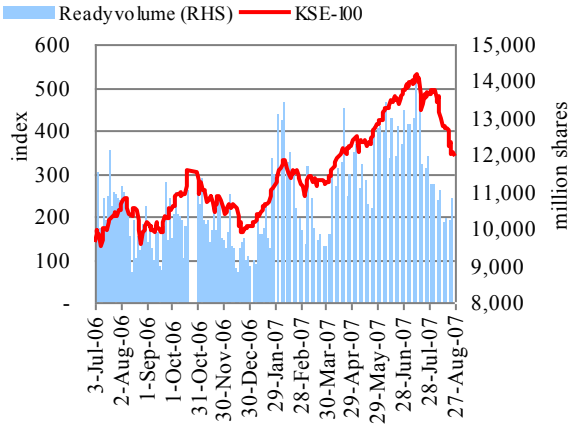
The salient feature of Pakistan's capital markets in FY07 was the significantly large inflows of portfolio investment as measured by SCRA.[30] This rising foreign interest in the equity market helped the Karachi Stock Exchange (KSE) to maintain its upward trend index, particularly during H2-FY07. In overall terms, the benchmark KSE-100 index grew by 37.9 percent in FY07 (see **Figure 5.41**) despite facing two severe market corrections in H1-FY07.

Figure 5.41: Performance of KSE



Another significant development in FY07 was the introduction of a free-float[31] index which incorporated 30 leading companies. The index was introduced in September 2006, with a base period of 30th June 2005 and the base value of 10,000. KSE-30 index is more representative of market performance and it can be adjusted for dividends and rights shares announced by various companies. Other benchmarks for assessing KSE performance, i.e., the KSE-100 and KSE-All Shares Index do not account for these adjustments.

Figure 5.42: KSE-100 Index and Ready Volumes



The large corrections observed in the KSE-100 index in August FY07 and November-December FY07,[32] as shown in **Figure 5.42,** were the outcome of several events. These include: (1) rumors of phasing out the limit on CFS; (2) the news of delay of issuance of OGDCs GDR and; (3) disappointing quarterly results (Q2-FY07) as the auto, cement, and textile sector did not perform well. Furthermore, large price corrections in shares of various listed banks also hampered the growth of the index. Moreover, the findings of the forensic report[33] on the March FY05 crisis also unsettled the market. However, the

[30] Special Convertible Rupee Accounts
[31] The free-float is the number of shares available to investors for trading purposes.
[32] The November-December FY07 price correction was more severe as the index lost 13.9 percent in just 37 trading days.
[33] Diligence USA's Report

news of increasing the CFS limit from Rs 25 billion to Rs 55 billion,[34] and linking the weighted average CFS rate with the 1-month Kibor served to improve the market sentiment.

Table 5.8: Overview of Capital Market

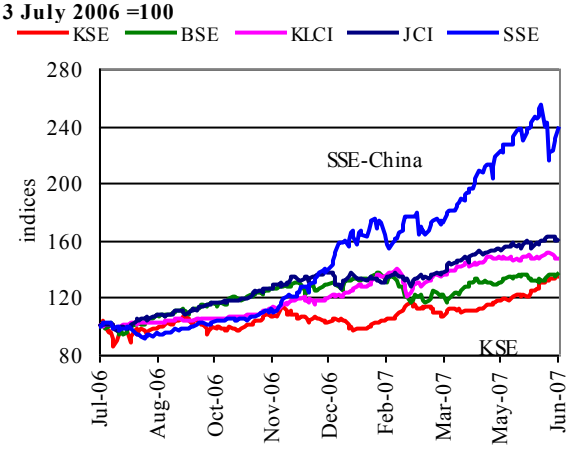
Equities (KSE)		**FY03**	**FY04**	**FY05**	**FY06**	**FY07**	**FY08**
Listed companies	numbers	701	666	659	658	656	656
Listed capital	billion Rs.	313	377	439	496	631	635
Market capitalization	billion Rs.	755.77	1,422	2,068	2,801	4,019	3,492
Market capitalization as % of GDP	percent	19.7	25.2	31.4	36.3	44.23	34.4
New listed companies	numbers	6	14	18	4	18	01
New listed capital	billion Rs.	4.6	55.6	32.3	7.8	7.98	12.1
Debt instruments (all listed)							
New debt instruments listed	numbers	15	6	12	7	8	Nil
Amount	billion Rs.	10.7	3.32	15.6	7	11.2	Nil
KSE-100 index							
High		4,606	5,620.7	10,303.1	12,273.8	9,504.4	14,202.4
Low		2,356.5	3,430.8	4,890.2	6,970.6	13,772.4	11,955.3
Turnover (KSE)							
Average volume per day (shares)	billion	0.31	0.39	0.35	0.32	0.21	0.28
Total value	billion Rs.	3,841	4,862	7,167.58	8,707.46	5,452.76	871.8
Turnover ratio		4	3.42	3.47	3.11	1.35	0.25
Lahore stock exchange							
LSE-25 index		2,034.6	2,828.3	3,762.3	4,379.3	4,849.88	4,247.22
LSE market capitalization	billion Rs.	751.2	1,406.2	1,995.3	2,693.3	3,185.41	2,001.97
Market capitalization as % of GDP		15.6	24.9	30.3	34.9	35.1	22.0
Islamabad stock exchange							
ISE-25 index		8,210.1	11,894.3	11,571.4	11,528.2	2,716.0*	2,736.58*
ISE market capitalization	billion Rs.	5,41.3	1,106.2	997.6	2,101.6	3,060.6	2,740.66
Market capitalization as % of GDP		11.2	19.6	15.2	27.2	33.6	30.1
SCRA investment (net Flows)	million US$				354	980	(161.2)

Source: Stock exchanges. FY08 figures up to 31August.* ISE-10 Index

5.5.1 Market Developments

Besides the increase in the CFS cap, the exemption from capital gains tax until June 2008 also augmented the market momentum in January 2007. Moreover, the increase in net SCRA flows (US $104 million in January FY07) further amplified the positive market sentiment. However, this momentum was short-lived as the corporate results were lower than investors' expectations. Moreover, the judicial crisis starting from March 2007, had some impact on the growth of the index. However, despite the prevailing political scenario in the country, the KSE-100 index gained on account of attractive prices particularly in banking, insurance and oil marketing scrips. Furthermore, with rising SCRA inflows, the index reached a new peak of 13,772 points on June 29, 2007.

Figure 5.43: Regional Equity Markets Indices
3 July 2006 =100



Foreign investment has been a major growth driver during FY07. On one hand, equity markets in Pakistan offered an attractive P/E value (12.8x), [35] on the other hand the market traded at a discount in

[34] In November 2006
[35] FY07 EPS Source : Capital One Securities

comparison with regional markets (Average 15.1 times). As a result, SCRA investment flows have seen a sharp rise from US$ 354 million in FY06 to US$ 980 in FY07 as shown in **Table 5.8**. However, the KSE-100 index still lags behind all major stock exchanges in Asia (see **Figure 5.43**).

5.5.2 CFS and Futures in KSE

One of the reasons for the robust growth in the KSE-100 index in H2-FY07 has been the increase in the CFS limit. With rising CFS investment, CFS volumes also rose very sharply indicating the investors' interest in CFS (see **Figure 5.44**). In case of futures, the average turnover has been very low (59 million shares) as the futures option is available in a few leading scrips. Although CFS was also available in a few scrips until recently, its volume is higher as the investors generally roll-over their commitments in a few days. This type of roll-over is not applicable in futures trading, which are usually traded for 28 to 30 days.

Figure 5.44: CFS and Futures Volumes in KSE (million shares)

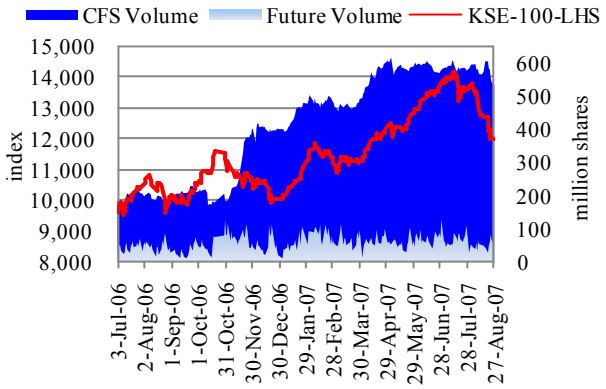
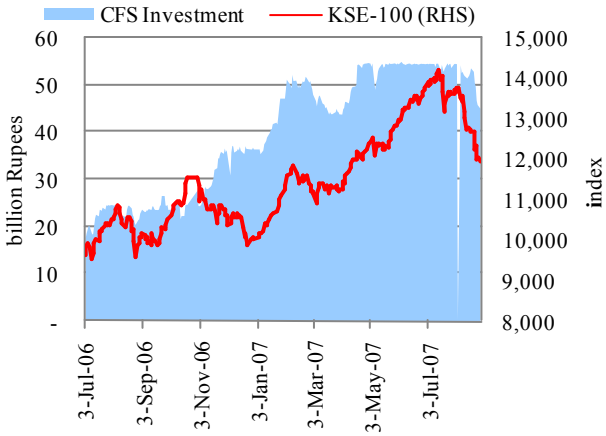


Figure 5.45 shows the trend of rising CFS investment strongly complementing the KSE-100 index growth. Furthermore, CFS investment has been very close to its maximum allowable limit of Rs 55 billion in the last few months of FY07. This may have also been on account of decreasing CFS rate.

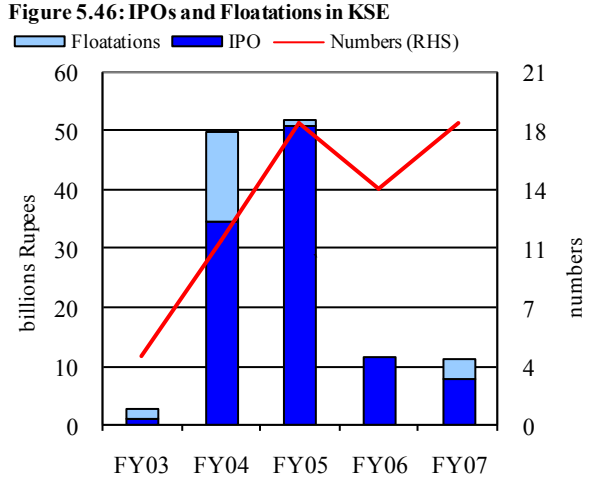
Figure 5.45: CFS Investment and KSE



5.5.3 Listings in KSE

FY07 is also significant in a way in that it witnessed the largest number of IPOs and floatation as also seen in FY05. There were 14 IPOs amounting to Rs 11.7 billion in FY06 which increased to 18 IPOs and floatation amounting to Rs 11.2 billion (see **Figure 5.46**).

Figure 5.46: IPOs and Floatations in KSE



5.5.4 Sector Wise performance in KSE

The KSE was once dominated by oil marketing and exploration companies on account of the number of shares traded and market capitalization. However, due to rising profitability, the commercial banking sector has managed to take the lead in the market in CY07. **Figure 5.47** shows the composition of turnover of shares traded in KSE at different time intervals. Besides the commercial banking sector, the technology and communication sector has also seen increased turnover.

Table 5.9: Sector-Wise Annual Corporate Results for CY05 and CY06 (PAT in million rupees, Dividend in percent)

	2005					2006				
Sectors	No.	PAT	Cash div	Stock div	Total div	No.	PAT	Cash div	Stock div	Total div
Close end mutual funds	22	7553.3	14.1	4.5	16.1	23.0	8265.6	18.9	1.8	17.2
Modarabas	38	806.0	7.0	0.2	5.8	35.0	814.8	-8.6	-0.9	-7.8
Leasing companies	21	1119.4	4.2	6.9	10.5	20.0	788.1	4.6	4.1	8.3
Investment banks	26	7488.9	19.7	20.7	34.2	24.0	7116.1	14.6	7.9	18.9
Commercial banks	20	47199.4	14.2	20.3	34.5	22.0	60266.9	11.9	12.7	23.5
Insurance	37	4826.2	13.0	16.3	23.8	38.0	13558.1	24.0	27.9	24.0
Textile spinning	112	2231.2	4.9	0.5	4.8	110.0	838.6	3.0	1.1	3.6
Textile weaving	20	-345.7	0.0	0.0	0.0	20.0	195.4	2.1	1.7	2.3
Textile composite	57	5789.3	9.0	2.1	9.6	58.0	4146.7	6.6	10.3	13.4
Woolen	5	5.9				5.0	-3.1			
Synthetic and rayon	19	472.4	5.3	0.6	5.0	19.0	1820.9	5.7	0.0	4.2
Jute	6	511.1	26.0		26.0	6.0	586.7	21.0	4.0	20.8
Sugar and allied	37	1766.5	10.9	2.4	12.9	37.0	1415.2	7.2	2.5	9.4
Cement	21	7967.7	4.2	4.8	8.9	21.0	11911.4	10.3	2.4	12.7
Tobacco	5	3012.9	45.0	0.0	45.0	4.0	3465.3	42.8	4.0	46.8
Refinery	4	5175.6	43.8	12.5	56.3	4.0	5255.5	41.9	17.5	59.4
Power generation	13	14425.0	12.8	0.0	11.8	13.0	1263.9	10.2	0.0	9.4
Oil and gas marketing	7	12442.0	110.7	8.3	119.0	7.0	16636.9	114.7	5.0	119.7
Oil and gas exploration	4	45715.3	71.4	0.0	71.4	4.0	65683.6	90.2	12.5	102.7
Engineering	13	1141.4	18.3	13.0	24.0	13.0	1245.4	22.2	9.3	24.2
Automobile assembler	13	6996.6	68.3	5.8	68.5	13.0	10513.3	73.7	12.9	79.9
Automobile parts	12	667.1	7.9	8.5	824.7	12.0	612.6	17.0	1.5	15.4
Cable and electrical	9	1209.4	88.6	11.5	87.6	9.0	1349.7	114.2	16.7	98.1
Transport	5	-1405.5	6.7	3.3	6.0	5.0	1529.9	2.0	0.0	2.0
Technology communication	12	28195.9	5.4	2.1	7.5	9.0	22527.0	15.0	9.1	21.4
Fertilizer	4	12533.5	85.0	13.8	98.8	4.0	11682.5	73.8	0.0	73.8
Pharmaceuticals	8	3597.9	50.9	12.5	63.4	8.0	3522.2	46.2	10.7	49.8
Chemical	23	4598.5	29.1	5.2	32.8	23.0	3148.1	31.9	3.1	31.9
Paper and board	12	1737.6	28.9	1.8	30.7	10.0	6763.5	23.3	3.9	27.2
Vanaspati and allied	13	72.9	0.0	0.0	0.0	12.0	-91.0	2.5	0.0	1.5
Leather and tyrannies	5	90.9	14.0	0.0	14.0	5.0	107.6	15.0	0.0	12.0
Food and personal care	21	4323.4	84.9	0.5	77.3	21.0	4613.1	92.3	1.6	85.0
Glass and ceramics	10	319.2	7.9	5.0	9.0	10.0	601.8	7.9	7.1	10.5
Miscellaneous	27	489.8	11.6	1.1	10.4	27.0	1412.5	16.3	2.3	15.1

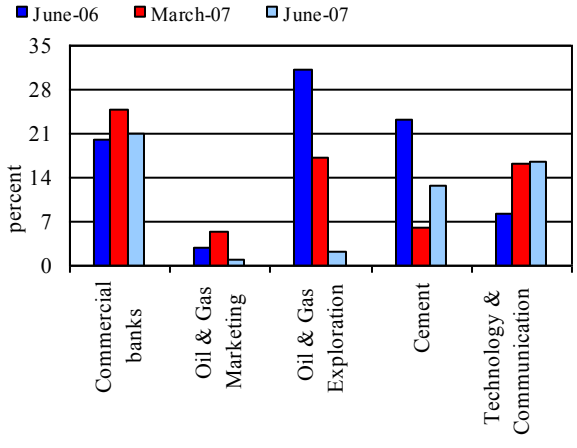
Source: Karachi Stock Exchange

5.5.5 Corporate Profitability

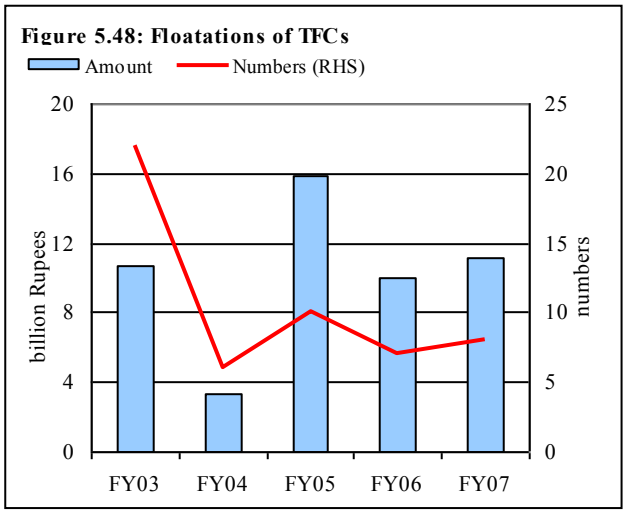
The Corporate profitability (results) has always been a major factor in the movement of the KSE-100 index. Generally, corporate with higher profitability are assumed to share dividends with its stakeholders in the form of cash dividends and/or bonus and rights shares. The profit after tax (PAT) of companies listed in KSE increased by 17.5 percent in CY06 as compared to CY05, (see **Table 5.9**). This has been due to the favorable investment climate.

The insurance and banking sector has displayed strong growth in its earnings during CY06 on

Figure 5.47: Turnover of Major Sectors



account of higher investment returns. Moreover, the insurance sector has witnessed an increased business in the form of higher net premiums. Similarly, the cement and automobile assembler sector produced better results in CY06 on account of the ongoing construction boom and demand for automobiles. However, with a rise in the rates of car financing, the sales of major automobile assemblers have decreased in CY06. The textile sector on the other hand disappointed the investors as its profitability declined in CY06.



5.5.6 Corporate Debt Market

The corporate debt market has also seen new floatation in FY07 amounting to Rs 14.2 billion (see **Table 5.10)**. Both, the number of issues and the amount mobilized during FY07 were higher compared to the preceding year (see **Figure 5.48**). Further, most of the floatation during FY07 were related to the financial sector.

Table 5.10 : Listing of Term Finance Certificates in FY07 (KSE)

Company	Issue date	Coupon rate	Tenor years	Total amount million Rs.
First International Inv. Bank	11-Jul-06	6-Month KIBOR+2.25% No Floor, Cap	5	500
Mobilink 2	31-May-06	6-Month KIBOR+2.85%, No Floor & Cap	7	3,000
JS & Co. 3	21-Nov-06	6-Month KIBOR+2.50%, 6.00% Floor & 16.00% Cap	5	1,000
UBL 3	9-Aug-06	12.11% (KIBOR + 1.7%)	5	2,000
Allied Bank	12-Jun-06	12.46% (KIBOR + 1.9%)	8	2,500
JS ABAMCO (A& B)	17-Jan-07	6-Month KIBOR+2.00%, 6.00% Floor & 16.00% Cap	7	700
Bank Al-Habib Limited (II)	7-Feb-07	12.61% (KIBOR + 1.95%)	8	1,500
Escort Investment Bank	15-Mar-07	6-Month KIBOR+2.50%, 8.00% Floor & 17.00% Cap	5	500
Orix Leasing Pakistan	25-May-07	6-Month KIBOR+1.50%	5	2,500
			Total	**14,200**