Monetary Policy Statement for Jul-Dec 2006

This statement is based on information received up to July 27, 2006

Highlights

- *State Bank and the Government of Pakistan have managed to achieve a fair degree of success in containing inflationary pressures with average increase in consumer price index close to annual FY06 target of 8 percent.*

- *Money supply growth for FY06, while higher than target, remained well contained and much below average broad money (M2) growth of the last few years.*

- *Real GDP growth target of 7 percent for FY07 set by government seems achievable as strong aggregate demand lends confidence that investment and capacity expansion will gain further momentum in the economy.*

- *Balance of risk has tilted towards managing domestic and external imbalances effectively and curbing inflationary pressures.*

- *Though inflation decelerated, the need to reduce volatility and achieve further reduction in inflation rate to 6.5 percent (FY07 target) underscores need for continued effective economic management.*

- *Meeting investment requirements of growing productive sector is assigned high priority by SBP that recently offered special financing incentives for textiles and exports, and has underscored need for diverse sector requirements, while keeping risk exposure tightly within limits.*

- *Most critical will be the need to diversify the source of domestic borrowings to keep central bank financing within manageable limits by, among others, issuing long-term debt which would set a benchmark for catalyzing corporate debt.*

- *Banks have been incentivized through recent change in cash reserve requirement/statutory liquidity requirement (CRR/SLR) to improve returns to depositors, and tighten their internal control systems, while managing their exposures effectively.*

- *SBP is further tightening its monetary policy by raising its policy rate (SBP 3-day Repo Rate) from 9 percent by 50 basis points to 9.5 percent.*

- *These measures coupled with effective consultations between the State Bank and Ministry of Finance on the level and mix of domestic borrowings lends confidence that money supply growth will be contained and aligned to the nominal GDP growth in FY07.*

1. Executive Summary

1. The SBP has an explicit dual mandate to ensure price stability and promote growth. Since FY01, with inflation at very low levels, monetary policy had greater bias towards supporting growth. With the inflationary pressures building up, from early-FY05 monetary policy stance has squarely tilted towards inflation containment.

2. Over FY06 and earlier, the firm steps taken to tighten monetary policy along with the Government's administrative measures have helped scale down the inflation rate (YoY) by 3.5 percentage points by June 2006 relative to April 2005. The decline in average inflation rate to 7.9 percent also helped achieve the inflation target with the contribution of monetary policy more evident in decline of the core inflation. Reducing inflation further in too short a period would have substantially hurt growth prospects. Supported by the strong private sector credit growth, the real GDP growth grew by 6.6 percent, which even though slightly below target, captures the growth momentum trend set in.

3. The monetary environment is becoming increasingly challenging. Despite the forecast for a continuation of strong global growth, inflation outlook is uncertain with output gaps closing in many economies and the continued rise in oil and other commodity prices. To stave off incipient inflationary expectations and pressures that could mount as the pass through of oil prices is felt more strongly, monetary policy has been further tightened in several countries. In economies where this has resulted in widening of trade imbalances, the burden to take corrective measures has fallen disproportionately on monetary policy and has often required concurrent adjustments in fiscal imbalances. A major challenge for the monetary authorities in many emerging markets is how to avoid policy mistakes that might put macroeconomic and financial stability at risk.

4. In Pakistan's context, monetary policy must now confront a number of challenges emerging from both domestic and international developments.

- The inflation target for FY07 requires a reduction of 1.5 percentage points over FY06, at a time when the incipient inflationary pressures remain high, particularly non-food inflation among others, because of high aggregate demand pressures as well as the pass-through effects of the oil price rise that looms substantially given the geopolitical situation.

- Provisional figures suggest that broad money supply (M2) grew by 15.0 percent in FY06, while this growth was substantially lower than the past few years trend, it was nevertheless higher than the target. Despite monetary tightening, the robust growth in aggregate demand, in particular private sector credit growth in the last quarter was above expectations. Besides the lingering effect of this, the aggregate demand will be further boosted in FY06 by the fiscal stimulus provided by the government to accelerate the much warranted social and infrastructure spending. An expansionary fiscal policy was unavoidable, given the reconstruction requirements of the earthquake struck areas, and the need to build apace on the country's infrastructure and social indicators, but it does mean that the burden of

containing aggregate demand, in order to keep inflation in check, must then necessarily fall on monetary policy.

- These economic compulsions call for the government to reflect further on its domestic borrowing strategy to ensure that budget recourse to central bank is curtailed by enhancing reliance on non-bank financing options. Besides helping to mitigate inflationary consequences, this borrowing strategy would help stretch the maturity of domestic borrowings, while ensuring offering market a bench mark to issue long-term papers.

- Challenges for monetary policy are compounded by rising external pressures as the current account deficit is envisaged to widen beyond FY06 level. In order to contain imports it is important to moderate aggregate demand, while to promote exports it is necessary to achieve price stability and help stabilize their costs to ensure Pakistani exports remain competitive. Achieving both of these objectives requires skillful monetary policy management.

5. Effective monetary management over medium term is critical to avoid recourse to other suboptimal or inefficient options. Other options to deal with the rising external current account deficit range from undesirable drawdown in reserves or increased reliance on external borrowing – both of which would aggravate the aggregate demand pressures and compound complications for monetary management. Given the negative impacts on the long-term economic growth of each of these policy options, it seems desirable to ensure a moderation in the aggregate demand through the continuation of a tight monetary policy.

6. Indeed it is precisely the mix of the still-high inflation in the domestic economy (particularly the resilience in non-food inflation) and the growing industrial and export industry demands that underpinned the recent policy moves by the central bank. These include on the one hand measures to dampen the credit growth by (i) enhancing frequency and intensity of open market operations to manage the banking system liquidity while ensuring monetary stability, and (ii) increasing the reserve ratios in July 2006. On the other hand, SBP has taken special measures for industry by allowing liberal access of concessional long-term financing for export oriented projects (LTF-EOP) and lowering the cost of export refinance.

7. The central bank will continue to focus on both of its performance objectives, i.e. price stability and growth during FY07, though the current balance of risk requires greater focus on containing inflation. Therefore it intends to continue with its tight monetary policy during H1-FY07. In line with its mandate, SBP will continue to monitor the risks to the economy elaborated earlier, and stands ready to modify its policies appropriately in order to protect the long-term growth prospects of the economy.

2. Recent Trends and FY06 Policy Assessment

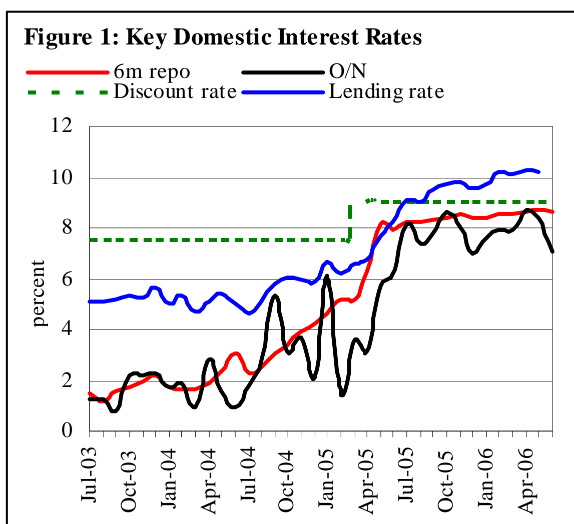
8. In line with its explicit dual mandate of maintaining price stability as well as supporting growth, SBP has treaded a careful path to manage oft-conflicting objectives.

With low economic growth, subdued inflation in the early 2000s and the inability of the government to provide a fiscal stimulus (as it strove to reduce the fiscal deficit) meant that monetary policy needed to provide an expansionary stimulus.

9. Accordingly, the SBP took advantage of the low domestic inflation and a sharp growth in domestic liquidity to gradually loosen its monetary posture from FY01 onwards. As this was supported by the government's improved fiscal discipline, policy consistency and economic liberalization, the economy responded favorably, with real GDP growth steadily accelerating from an average of 3.6 percent in FY99-03, to an average of 7.6 percent in the FY04-06 period.

10. However, by FY05, the acceleration in aggregate demand, and to a lesser extent, rising energy prices significantly contributed a rise in inflationary pressures in the domestic economy. Thus, by early FY05, as the uptrend in inflationary pressures increasingly seemed likely to threaten the country's long-term growth, monetary policy gradually moved away from promoting growth to containing inflation. Consequently, 6-month T-bill yields in primary auctions moved from 1.84 percent at end-April 2004 to 7.19 percent by end-April 2005, and SBP raised its policy rate (the 3-day repo rate or discount rate) from 7.5 percent to 9.0 percent in April 2005 (see **Figure 1**). More importantly, in contrast to past practice, the central bank conducted frequent OMOs to ensure that market liquidity was consistent with its tighter monetary posture.

Figure 1: Key Domestic Interest Rates



11. Since the initial tightening remained gradual in early FY05 and a decisive monetary tightening move was made in late FY05 the full-year FY05 data showed only a weak response to containing inflation whereas economy continued to grow strongly as intended for the period. Real GDP growth was substantially higher in FY05 than the target, raising pressures on productive capacity of the economy, and leading to a surge in imports. The rising capacity utilization, unexpectedly high energy costs, supply-shortages in key food staples substantially added to inflationary pressures. Not surprisingly therefore, CPI inflation averaged 9.3 percent in FY05, substantially above the 5.0 percent target, despite a sharp fall in year-on-year inflation from a local peak of 11.1 percent in April 2005 to 8.7 percent in June 2005.

12. It is in this context that the government, in consultation with the SBP, incorporated an inflation target of 8.0 percent in the FY06 Annual Development Plan (ADP). The target for FY06 inflation kept in perspective the concerns that a sharper reduction in inflation could substantially hurt the growth momentum of the economy, and therefore it was necessary to bleed of the inflationary pressures over a more extended period. Notwithstanding, some slowdown in the economy was inevitable, as evident from the real

GDP growth target of 7.0 percent for FY06, substantially below the 8.6 percent growth achieved in FY05 (see **Table 1**).

Table 1: Key Macro Targets and Performance

	FY05		FY06	
	Targets	FY05 Revised	Targets	Provisional estimates
GDP	6.6	8.6	7.0	6.6
Inflation	5.0	9.3	8.0	7.9
Monetary assets (M2)	14.5	19.3	12.8	15.0

13. The implementation of SBP monetary policy during FY06 varied significantly from the preceding fiscal year. Instead of the traditional rise in the benchmark T-bill rates and the key policy rate (the SBP 3-day repo rate),[1] the central bank focused on the short-end of the yield curve, draining excess liquidity from the inter-bank money market and pushing up short-tenor rates; not only did the overnight rates remain close to the discount rate through most of the year, the volatility in these rates was also reduced (see **Table 2**).[2]

Table 2: Volatility in Overnight Rates

percent

	Average	Standard Deviation	Coefficient Of Variation
FY04	1.65	1.87	1.13
FY05	3.75	2.66	0.71
FY06	7.88	1.28	0.16

14. A direct consequence of this was the increasing divergence between the T-bill rate and 6-month KIBOR through FY06; while the former saw little change, the latter witnessed a rise of 90 basis points. When the key policy rate of SBP remains unchanged, changes in both the T-bill rates and the money market rates reflect the monetary policy stance that is implemented through a combination of instruments including T-bill auctions, OMOs, and cash/liquidity requirement. While SBP 3-day repo rate remained at April 2005 level, the monetary tightening had a distinct impact as evident clearly in the trend of monetary conditions index (MCI) (see **Figure 2 & 3**), monitored internally by SBP[3].

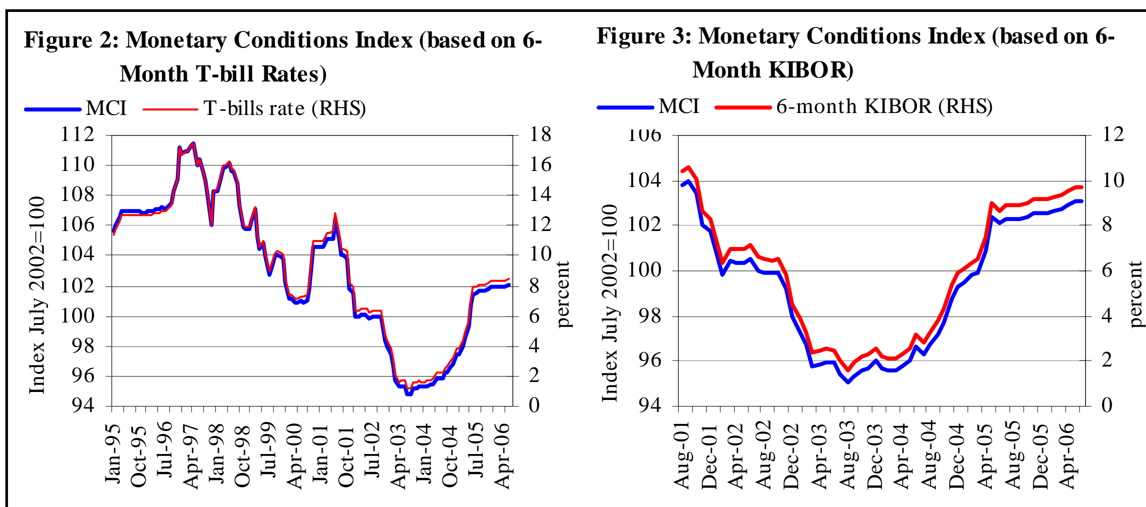


Figure 2: Monetary Conditions Index (based on 6-Month T-bill Rates)

Figure 3: Monetary Conditions Index (based on 6-Month KIBOR)

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1 The discount rate remained unchanged through FY06, and even the auction yields on the benchmark 6-month T-bill rate was almost unchanged, witnessing a rise of only 50 basis points during the period.

2 The central bank's decision to focus on the very short end of the yield curve was based on a number of factors, including the need to strengthen the link between the monetary posture and market liquidity (as seen in H1-FY05), and to reduce the impact of the government's fiscal operations on monetary policy signals.

3 The MCI is a weighted average of interest rate and exchange rate relative to a base period and tracks the combined impact of interest rate and exchange rate changes on monetary conditions. For details see

15. The tighter liquidity conditions impacted the real economy as evident from the deceleration in the growth of private sector credit from 34.4 percent in FY05 to 23.5 percent in FY06. The deceleration in private sector credit growth was more pronounced from Q2-FY06 onwards, while growth in broad money since then was largely influenced by the government borrowings (see **Table 3**). While on annual basis, net government borrowings remained within limits, the higher and unpredictable financing of budget during the course of year has had monetary consequences.

Table 3: Contribution to M2 Growth

in percent

	Jul-Jun	
	FY05	**FY06**
1. Credit to non-govt sector	16.8	13.8
2. Government borrowing		
a. budget borrowings from SBP	*6.3*	*4.6*
b. budget borrowings from schd banks	*-3.4*	*-2.2*
c. Others (commodity operations, etc.)	*1.0*	*0.7*
a+b+c	3.9	3.1
3. Net foreign assets	2.2	1.7
Sub total (2+3)	6.0	4.8
4. Other items net	-3.6	-3.5
M2	**19.3**	**15.0**

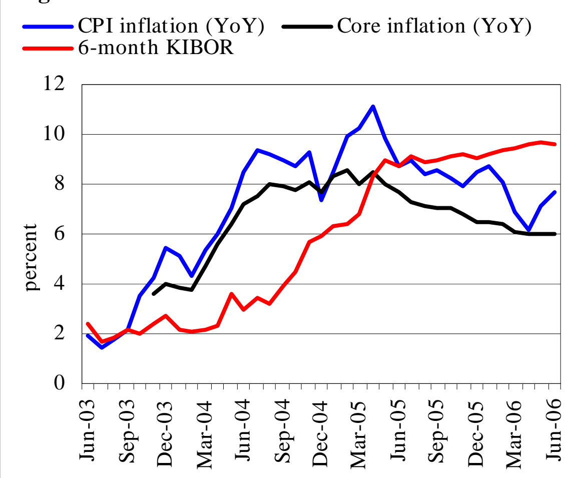
16. Nevertheless, as illustrated in **Table 4**, the fall of 4.3 percentage point in the growth in broad money from 19.3 percent in FY05 to 15.0 percent (provisional estimates) in FY06 confirms that transmission mechanism works in Pakistan, albeit with lags, and the deceleration in money supply has principally stemmed from the decline in the growth of non-government credit.

Table 4: Quarterly Flows FY06

billion rupees	Q1	Q2	Q3	Q4
Government sector	10.5	58.4	-41.1	63.0
Net budgetary borrowing (i+ii)	24.5	60.4	-23.6	9.7
Growth	(3.8)	(9.0)	(3.2)	(1.4)
(i) State Bank of Pakistan	67.9	74.5	-78.2	70.8
(ii) Scheduled banks	-43.4	-14.1	54.5	-61.1
Non-government sector	74.6	219.6	51.9	62.4
Private sector	77.6	220.0	46.5	57.6
Growth	*(4.5)*	*(12.3)*	*(2.3)*	*(2.8)*
Other items (net)	-42.19	-18.70	-19.17	-23.06
Net domestic assets	42.9	259.3	-8.4	102.3
Foreign assets (net)	-53.3	-13.4	51.1	65.6
Monetary assets (M2)	-10.4	245.9	42.6	167.9
Growth	*(-0.4)*	*(8.5)*	*(1.2)*	*(5.2)*

17. The decline in inflation during FY06 thus appears to incorporate the cumulative impact of the monetary tightening since September 2004. This view is supported by the gradual weakness in core inflation over the same period (see **Figure 4**).

Figure 4: Inflation and Market Interest Rate



18. Average CPI inflation for FY06 contained to 7.9 percent, within the 8.0 percent annual target, is certainly an encouraging development, particularly as this was without significant prejudice to economic growth. Although inflation witnessed a deceleration in FY06 from a medium-term peak of 9.3 percent in FY05, real GDP growth also slowed in FY06.

Hyder, Zulfiqar and Muhammad Mazhar Khan (2006), *Monetary Conditions Index for Pakistan,* SBP Working Paper No.11, May.

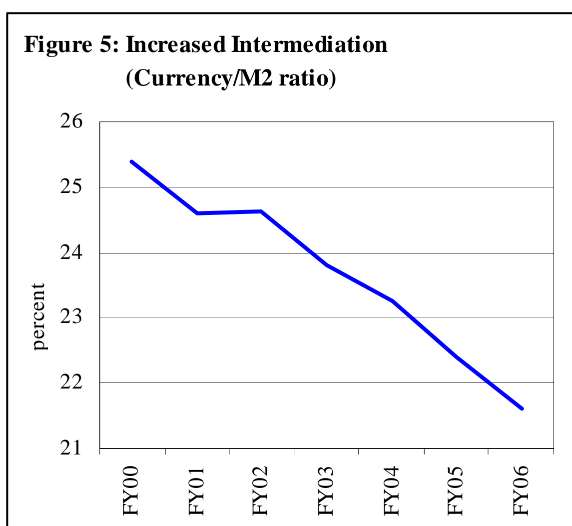
19. In contrast, the distinct feature of restraining inflation to 6.5 percent during FY07 together with accelerating GDP growth to 7.0 percent, makes the conduct of monetary policy difficult. Moreover, growth promoting fiscal stance render the monetary policy environment even more challenging going forward.

3. Challenges and Environment for FY07 Monetary Policy

Despite the welcome FY06 decline, inflation is still high

20. There is considerable acceptance that some degree of inflation is inevitable in a healthy economy, and that inflation is harmful only when it rises beyond a certain threshold. Empirical studies have estimated this threshold for developing economies in the 7-to-11 percent range.[4] However, estimates of threshold inflation for Pakistan have indicated a somewhat lower range (5-9 percent).[5] Nevertheless, given that these studies necessarily depend on historical data, these estimates may not hold during periods when the economy is undergoing substantial changes. Indeed, the growing banking sector intermediation in Pakistan in recent years (as evident in **Figure 5**), and consequent greater sensitivity of the economy to interest rates and inflation suggests that a lower level of inflation than the above estimated threshold levels would be desirable. This suggests that the targeted reduction in average FY07 inflation must be achieved in order to sustain long-term growth.

Figure 5: Increased Intermediation (Currency/M2 ratio)



21. Even if with some lag, a part of the deceleration in inflation during FY06 has emanated from the significant rise in interest rates in FY05. Given the relatively higher target of inflation at 8.0 percent, monetary tightening moves have been moderate in FY06. This suggests that the tightening stance has to be stronger given the lower target of inflation at 6.5 percent for FY07.

22. Indeed, a look at the contributory factors in the deceleration of CPI inflation for FY06 reinforces this view. The greater part of this deceleration is contributed by food inflation, and the non-food component has seen a more modest fall.

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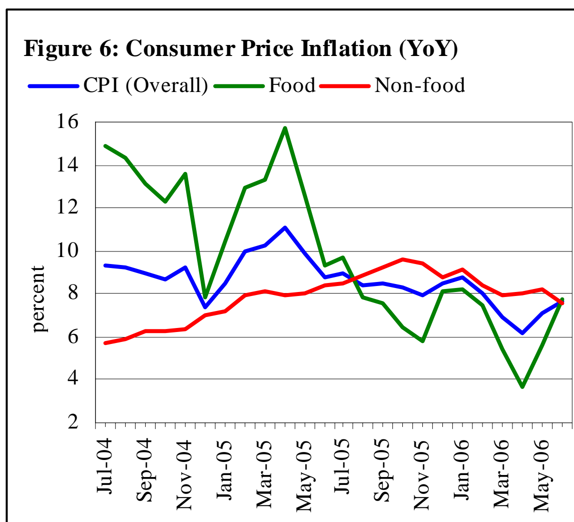
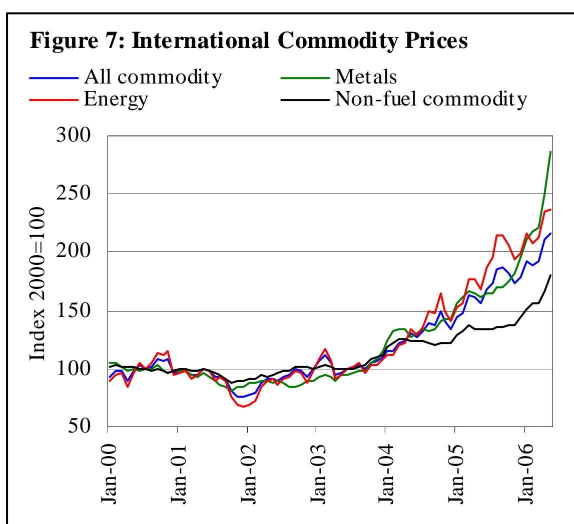
[4] Khan, Mohsin (2002) *Inflation, Financial Deepening and Economic Growth*, Banco de Mexico Conference on Macroeconomic Stability, Financial Markets and Economic Development, Mexico City, November 12-13, 2002.

[5] Mubarik, Yasir Ali (2005), *Inflation and Growth: An Estimate of the Threshold Level of Inflation in P*akistan SBP Working Paper No.8, June. and,
Hussain, Manzoor (2005) *Inflation and Growth: Estimation of Threshold Point for Pakistan*, Pakistan Business Review, Vol.7, No.3, College of Business Management, October.

23. This is most clearly seen in the trend of core (monetary policy induced) inflation, which remains high at around 7 percent and CPI and its components did show vulnerabilities (see **Figure 6**) signifying that without continued tightening, the risk of resurgence in inflation persists and is compounded by the uptrend in commodity prices (see **Figure 7**); particularly international oil prices. The latter is important given its second-round impact on inflation through increased production, transportation and utility costs.





24. Since the domestic demand continues to be the key source of economic growth in recent years, and that the impact of excessive domestic aggregate demand may be exacerbated by high prices of essential commodities such as oil that have relatively low price elasticities, SBP's monetary policy needs to target a deceleration in aggregate demand.

Despite the relative deceleration, monetary growth remained high

25. While the tight monetary policy was instrumental in significantly reducing the growth in M2 during FY06, the 15.0 percent (provisional) increase in M2 is strong, and exceeds the annual target. It is worth pointing out here that the monetary expansion had seemed generally in line with nominal GDP growth through most of the fiscal year. Indeed, by June 24, 2006, the cumulative monetary expansion was recorded at only 13.4 percent. In other words, *approximately* _*1.6 percentage points*_ *were added to the M2 growth during the last 6 days of FY06.*[6] This will continue to fuel inflationary pressures in the economy in months ahead unless checked by tightening measures.

26. However, a sharp increase in M2 growth during the last week(s) of a financial year is not unusual, reflecting the commercial banks' efforts to show improved performance for the year. Trends indicate that a part of the rise is typically transitory (lasting only few weeks) but the remainder is sustained (see **Annex 3: End-June Impact on Growth of Monetary Aggregate**) and consequently impacts demand which in turn carry forward inflationary pressures for succeeding months. Thus, while the end-FY05 jump in M2 growth contributed to inflation in the succeeding year, a part of the end-FY06 spike will

[6] For analysis of components of M2, see *Annex 1*.

add to inflationary pressures in FY07. The relative contribution to inflation in the two years will depend on the relative size of the sustained (un-reversed) spike in M2 growth.

27. All these factors forced the commercial banks' average lending rate to increase by 2 percentage points to 10.23 percent between July 2005 and May 2006. The average lending rate adjusted for inflation continued to rise during the year and ended up in the positive zone in March 2006. This forced private sector credit growth to decelerate from March 2006 onward (see **Figure 8**). The average deposit rates also rose by 106 bps to 2.91 percent. The banking spread moved up by 96 bps to 7.32 percentage points since the increase in average return on all deposits did not keep pace with the increase in the average lending rate. However, returns on fresh deposits show a gradual rise reflecting impact of monetary policy (see **Figure 9**).

28. Although the deceleration in private sector credit growth during the second half of FY06 indicates some slowdown in aggregate demand, the demand pressures still remain fairly strong, as evident in the continuing strength of imports, particularly towards the end of FY06 (see **Table 5**). On the other hand, domestic productive resources are over-stretched as nearly all the sub-sectors of commodity producing sector have shown below the target growth. As a consequence of the mismatches between demand pressure and productive capacity, pressures on the external account and inflation are still high in the economy.

Figure 8: Growth in Private Sector Credit

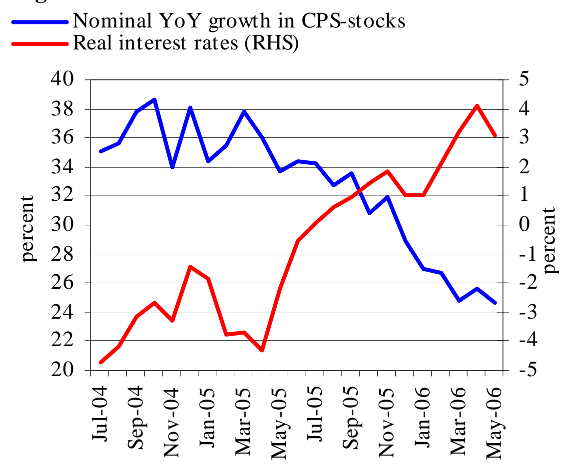


Figure 9: W A Return on Deposits

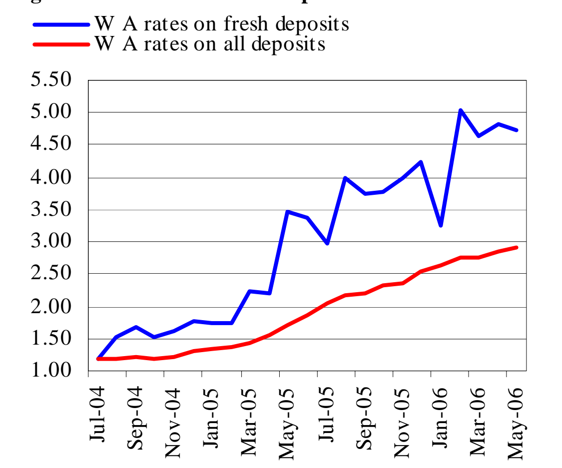


Table 5: Quarterly Growth in Exports and Imports

	Exports	Imports
Q1-FY05	14.34	36.76
Q2-FY05	18.71	55.74
Q3-FY05	18.06	31.61
Q4-FY05	14.80	29.76
Q1-FY06	9.36	36.73
Q2-FY06	5.75	20.30
Q3-FY06	8.99	25.50
Q4-FY06	13.29	48.93

Expansionary fiscal stance risks stoking demand and inflation

29. In the face of exogenous shocks (e.g. unexpectedly high oil prices) to the economy it would have been desirable for the fiscal policy to be more supportive of monetary policy in containing aggregate demand and inflationary pressures. Ability to contain expenditure

growth was however circumscribed by the need for earthquake relief and reconstruction efforts as well as the requirement for rising development expenditures to support future economic growth prospects.

30. Although the government is attempting to improve the tax-to-GDP ratio in FY07, the fiscal expansion envisaged in the budget for FY07 is likely to further build up pressures on aggregate demand and make price stabilization for SBP even more challenging. It should also be kept in mind that the rise in aggregate demand, will also contribute to the pressures on the external account. This also suggests that monetary policy has to be tightened further going forward.

31. The fiscal risks to monetary policy are heightened by the heavy reliance on borrowing from the central bank to finance the deficit. These totaled Rs 135.1 billion (41.2 percent of the deficit) in FY06, contributing substantially to the growth in reserve money. This cannot be repeated in FY07; there is broad recognition that the Government needs to lower accumulated stock of marketable treasury bills (that have build up because of the past two years' high budget recourse to the central bank), while reducing fresh reliance of the budget to central bank. Aside from the need for rolling over the maturing debt against long term government securities (such as Pakistan Investment Bonds (PIBs) and the National Saving Schemes), the Government would need to issue additional long-term debt to finance the new requirement emanating from fiscal gap for FY07. The right blend of non-inflationary borrowing mix from commercial banks, non-bank and external sources will facilitate achievement of monetary stability.

Widening external deficits need to be addressed urgently

32. The strong demand pressures coupled with trade liberalization measures played a vital role in swelling the external pressures on the economy. With rising capacity utilization in the domestic economy, a significant part of the rise in aggregate demand (primarily inputs and capital goods) is increasingly being met through imports, and the impact of this is being augmented by the rising imports for the creation of fresh capacity, and very strong rise in international oil prices.

33. Not surprisingly therefore, Pakistan's trade deficit has widened sharply as capacity constraints became tighter in FY05 and FY06. Indeed, the deterioration in the current account deficit during FY06 emanates essentially from the trade deficit, wherein the gains from a robust 13.3 percent increase in exports have been eclipsed by the exceptionally strong 30.6 percent increase in imports.[7] Ironically, the widening trade deficit, in the short run, has probably helped offset part of the inflationary pressures that emerged in the economy due to capacity constraints, by augmenting the supply of goods. Without matching large non-debt creating inflows, this strategy would eventually lead to a vicious circle of debt creation, exchange rate depreciation and inflation.

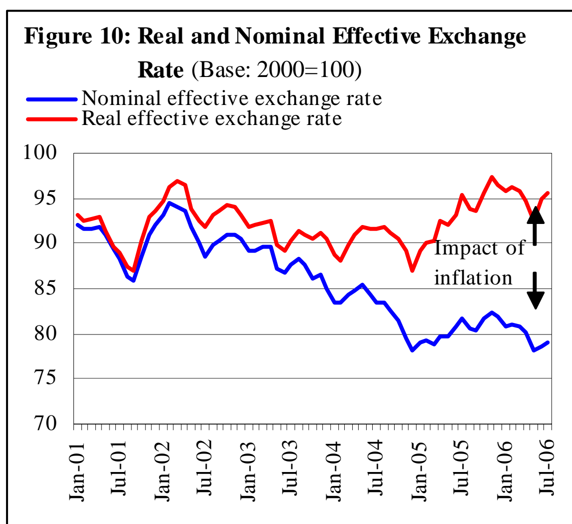
[7] The balance of payment data shows 13.3 percent and 30.6 percent growth in exports and imports respectively, whereas the FBS data indicates 14.4 percent and 38.8 percent rise in these two heads respectively.

34. While the exceptional growth in imports is certain to be moderate in FY07 it is important that the export growth momentum be sustained. Indeed, while data shows that the exceptional growth in imports may already be slowing considerably, export growth is also slowing, suggesting the need for greater support for exporters, and that the projects to improve domestic logistics chain and infrastructure be expedited. This also requires that the central bank remain vigilant against inflation, as price stability will be a key competitive advantage for the country.

35. Turning to options for the non-debt financing of the external deficits, it is important to recognize that while the use of privatization receipts (through sale of assets to foreign investors) can be an option for financing current account deficits, this too is only a medium-run solution as: (i) there is only a limited supply of marketable assets, and (ii) profitably run privatized assets would generate dividend outflows in the medium term. A similar risk lies with the financing through portfolio investment flows. The fact that the aggregate of these inflows (i.e., privatization proceeds and equity portfolio inflows) into Pakistan totaled approximately US$ 1.9 billion during FY06, underlines the risk to the economy.

36. One seemingly obvious path to controlling trade imbalances would be exchange rate adjustment. In theory, this would result in higher exports (by making them cheaper) and reduced imports (by making them expensive). However, such adjustments have only temporary gains. Moreover, this is not a feasible option as it could destabilize the inter-bank markets, with heavy consequent costs, as well as feeding into inflationary pressures. In particular, large and/or abrupt exchange rate adjustments are neither envisaged nor desirable. A better option is to enhance competitiveness of exports, e.g. by containing inflationary pressures(see **Figure 10**), reducing the cost of doing business, improving infrastructure (including removing transportation bottlenecks to lower delivery lags, and costs), enhancing labor skills, strengthening managerial capacity and reducing unit labor costs. In other words, focus in promoting exports has to be significantly shifted towards non-price and qualitative factors.

Figure 10: Real and Nominal Effective Exchange Rate (Base: 2000=100)



International economic environment is becoming more challenging

37. The risks posed by the country's widening external deficit are compounded by the changes in the international economic environment. Although the impact of persistent rise in international oil prices did not translate into domestic inflation rates in major economies, particularly the US and the Euro area due to limited pass through so far, inflationary pressures are evident globally and central banks around the globe are tightening monetary

policy (see **Table 6** and **Annex 2**). While the short-term growth outlook is still intact, there is clearly a risk that global growth could slow in future as a result of rise in inflationary pressures. This would generate additional pressures for open economies such as Pakistan that are not only significantly dependent on these economies for trade and investment, but also import a substantial portion of its energy requirements.

Table 6: Policy Rate of Selected Central Banks (percent)

Country	Central Banks	Policy Tool	Dec-04	Dec-05	Current Rates
India_1/	Reserve Bank of India	Repo Rate	6.00	6.25	7.00
Sri Lanka	Central Bank of Sri Lanka	Repo Rates	7.00	8.75	9.13
Bangladesh	Bangladesh Bank	Repo Rate	4.55	8.00	8.50
Thailand	Bank of Thailand	14-days Repurchase rate	2.00	4.00	5.00
Philippines	Bangko Sentral ng Pilipinas	Overnight Borrowing rates	6.75	7.50	7.50
Korea	Bank of Korea	Overnight Call rates	3.25	3.75	4.25
Indonesia_2/	Bank of Indonesia	Bank of Indonesia (BI) Reference Rate	7.40	12.75	12.25
USA	US Federal Reserves	Federal Fund Rates	2.25	4.25	5.25
Euro area	European Central Bank	Refi Rates	2.00	2.25	2.75
UK	Bank of England	Repo Rate	4.75	4.50	4.50
Japan_3/	Bank of Japan	Overnight Call Rates	0.00	0.00	0.25
Canada	Bank of Canada	Overnight Funding Rates	2.50	3.25	4.25
Switzerland	Swiss National Bank	3-m Swiss Libor	0.75	1.00	1.50
Australia	Reserve Bank of Australia	Cash Rate	5.25	5.50	5.75
New Zealand	Reserve Bank of New Zealand	Cash Rate	6.50	7.25	7.25
Turkey	Central Bank of Turkey	Overnight Borrowing Rate	18.00	13.50	17.25

_1/ RBI increased its policy rate by 25 basis points to 6 percent on 25th July 2006

_2/ Since July 2005 the Bank Indonesia (BI) rate has been the official target for one-month securities. The comparative for end-2004 is the one month Sertifikat Bank Indonesia (SBI) rate from the last auction of the year, rounded to one decimal place.

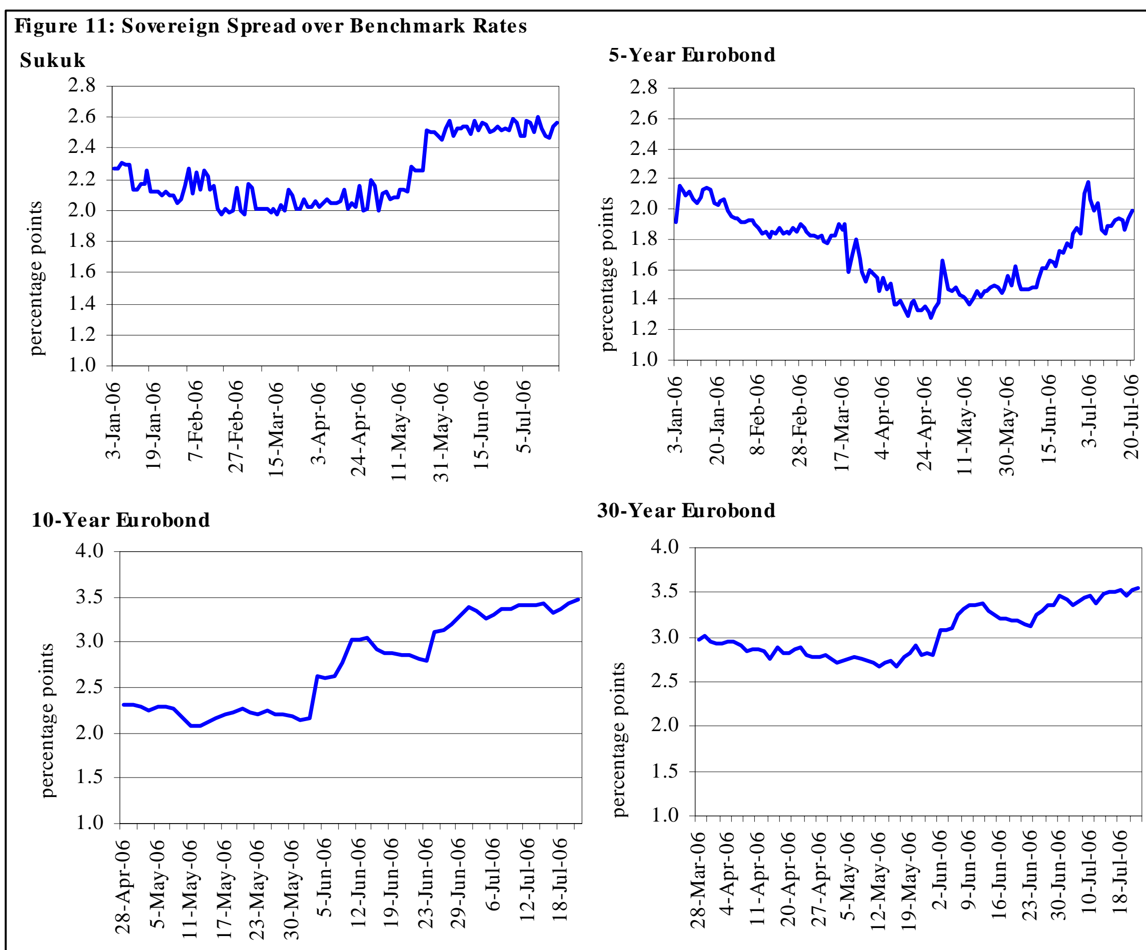
_3/ On July 14, 2006 the Bank of Japan raised interest rates for the first time in six years, lifting its overnight call rate to 0.25 percent from zero. This followed a move on March 9, 2006 when the BOJ said it would no longer set a target for the amount of surplus funds in the money market, ending its "quantitative easing" policy, and adopted a more conventional tactic of guiding the unsecured overnight call rate. Since March 19, 2001 the call rate had been effectively zero as the BOJ had targeted the outstanding balance of current account deposits that banks and other institutions hold at the BOJ.

38. In addition, risks related to global economic slowdown, lower liquidity in the global financial markets, together with rising macro imbalances have increased the level of uncertainty for investors and capital will flow to less risky environments. The rise in risk aversion among investors is now emerging and captured by the rising sovereign spread between US T-bills and sovereign issues of emerging economies (see **Figure 11**). The rising spread suggests that the environment will be less favorable to emerging economies' borrowers in the near future.

4. Credit Plan and Outlook for FY07

39. The credit plan for FY07 envisaged a growth of 13.5 percent in monetary assets for the year, somewhat lower than both the projected nominal GDP growth of 14.2 percent for the year and realized money supply growth of 15.0 percent (provisional) during FY06.

Figure 11: Sovereign Spread over Benchmark Rates



While this monetary expansion is aimed at lowering inflation to 6.5 percent, it is also supportive to a higher GDP growth target of 7.0 percent.

40. The continued tight monetary stance is evident, as FY07 credit plan is intended to further slow the aggregate demand by encouraging more efficiency in credit allocation process which is planned to reduce credit growth to private sector from 23.5 percent in FY06 to 18.4 percent in FY07. A projected decline in other items (net) of the banking system provided room to allocate a substantial Rs 390 billion during FY07 for the private sector, which is however, marginally lower than the Rs 401.8 billion (provisional) credit extended to the sector in FY06.

41. A rise in budgetary borrowing is simply a reflection of additional pressures on government due to earthquake related spending and substantially enhanced developmental outlay. The latter, in particular is necessary to sustain the current growth momentum. In contrast, contribution of external sector in monetary expansion is likely to shrink for yet another year in a row (see **Table 7**).

Table 7: Monetary Survey: Credit Plan and Actual

billion rupees

	Credit plan		Cumulative flows during	
	FY06	**FY07**	**FY05**	**FY06 prov.**
1. Government borrowing (net)	**120.0**	**130.1**	**95.8**	**90.8**
a. Net budgetary borrowing	98.0	120.1	71.8	70.9
b. Commodity operations	20.0	10.0	22.0	19.9
c. Net effect of Zakat fund/privatization	2.0	0.0	2.0	-0.1
2. Non-Government Sector	**320.0**	**395.0**	**418.7**	**408.4**
a. Credit to private sector	330.0	390.0	437.8	401.8
b. Credit to PSEs	-10.0	5.0	-12.7	7.6
c. Other financial institutions (NBFIs)			-6.5	-1.0
3. Other items (net)	**-75.0**	**-75.0**	**-88.4**	**-103.1**
4. Net domestic assets (1+2+3)	**365.0**	**450.1**	**426.0**	**396.0**
percent growth	***15.7***	*16.5*	*22.4*	*17.0*
5. Net foreign assets	**15.0**	**9.8**	**53.7**	**50.1**
6. Monetary assets (4+5)	**380.0**	**459.9**	**479.8**	**446.1**
percent growth	*12.8*	*13.5*	*19.3*	*15.0*

42. Pakistan's economy is expected to continue performing well in FY07. Real GDP growth is projected to remain in excess of 6 percent assuming reasonably good harvests of key crops and sharper recovery in invesments to support industrial requirements. The path of monetary policy becomes further complicated by both the proposed expansionary fiscal policy (that will add to aggregate demand) as well as the uncertainty on the degree of monetization of the fiscal deficit.

43. The resulting strength of the aggregate demand is expected to support inflationary pressures in the economy, and may contribute to a further increase in the external imbalances. Bulk of the external current account deficit is expected to be financed by privatization receipts and strong aid inflows, and any slippages on these fronts would involve either undesirable drawdown in reserves, or require additional measures to contain aggregate demand or a more focused policy of containing external demand. Given the strong negative impacts on the long-term economic growth of each of these policy options, it seems desirable to ensure a moderation in aggregate demand through the continuation of a tight monetary policy.

44. Indeed it is precisely the mix of the still-high inflation in the domestic economy (particularly the resilience in non-food inflation) and the growing external imbalances that underpinned the recent policy moves by the central bank, including the liberalized access of concessional long-term credit for export-oriented investments, the reduction in the export finance funding as well as the increase in banks' reserve ratios in July 2006.

45. While the first two measures are aimed at improving the competitiveness of the country's exports, the last measure is aimed essentially at moderating aggregate demand and inflation. The increase in the statutory liquidity requirements will serve to curb

aggressive lending by the less liquid banks. The higher cash reserve requirment will have a stronger impact, significantly draining liquidity from the system. In short, the measure will serve to moderate credit growth, without stifling economic activity. Moreover, the differential requirements for demand and time deposits will also signal to banks, the need to raise effective returns to depositors, and to attract term deposits (see **Annex 4: Impact of Changes in Reserve Requirement**).

46. The central bank will continue to focus on both of its performance objectives, i.e. price stability and growth, during FY07. Nonetheless, the current balance of risks suggests greater focus on containing inflation. Therefore it intends to continue with its tight monetary policy during H1-FY07. However, it will continue to monitor the risk to the economy elaborated earlier, and stands ready to modify its policies appropriately in order to protect the long-term growth prospects of the eocnomy.

Annex 1: Monetary Development during FY06[1]

1.1 In order to contain inflationary pressures in the economy, SBP pursued tight monetary policy throughout FY06. However, instead of increasing the discount rate, SBP focused more on draining excess liquidity from the inter-bank money market. As a result, short-term interest rates remained close to the discount rate. Also, the weighted average lending rate increased by 202 basis points during the Jul-May FY06 period.

1.2 Monetary tightening impacted aggregate demand, thereby resulting into ease in the inflationary pressures. Specifically, the headline CPI inflation decelerated to 7.9 percent during FY06 compared to 9.3 percent in FY05. While core inflation also decelerated, it still remains high.

1.3 The broad money supply (M2) increased by 15.0 percent during FY06. While this monetary growth is higher than the 12.8 percent growth target envisaged in the Credit Plan for the year, the expansion is still significantly lower than the 19.3 percent growth witnessed during FY05 (see **Table 1.1**).

Table 1.1: Monetary Survey (Flows)

in billion Rupees

	Credit Plan FY06	FY05	Prov. FY06
Broad money (M2)	**380.0**	**479.8**	**446.1**
growth in percent	*12.8*	*19.3*	*15.0*
Reserve money		**136.1**	**95.9**
Net foreign assets (NFA)	**15.0**	**53.7**	**50.1**
SBP		-8.6	60.3
Scheduled Banks		62.3	-10.3
Net domestic assets (NDA)	**365.0**	**426.0**	**396.0**
SBP		130.3	26.5
Scheduled banks		295.7	369.6
of which			
Government borrowing	**120.0**	**95.8**	**90.8**
For budgetary support	98.0	71.8	70.9
SBP		155.6	135.1
Scheduled banks		-83.8	-64.1
Commodity operations	**20.0**	**22.0**	**19.9**
Credit to non-govt sector	**320.0**	**418.7**	**408.4**
Private sector	330.0	437.8	401.8
PSEs	-10.0	-12.7	7.6
Other items net (OIN)	**-75.0**	**-88.4**	**-103.1**
SBP		-19.2	-108.0
Scheduled banks		-69.2	4.8

1.4 It is generally believed that the M2 growth during FY06 is constrained by drawdown of reserves, reflecting a sharp deterioration in the country's balance of payments. However, contrary to the popular perception, NFA contributed 1.7 percent to monetary growth during FY06. In fact, 13.3 percent growth in monetary assets is driven by Net Domestic Assets (NDA) of the banking system.

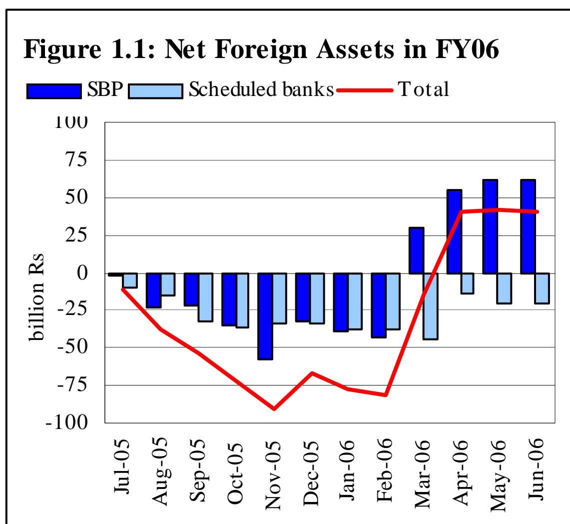
1.5 Although, the deceleration in M2 growth was contributed by all sub-heads, this deceleration in principal stemmed from non-government sector, as its contribution in slowdown was higher than the combined contribution of NFA and government sector.

1.6 Thus, the pace of monetary expansion was mainly constrained due to the slowdown in the private sector credit growth.

[1] This section is based on provisional data for 30th June 2006, final data may differ and will be available after audit of SBP Annual Accounts.

1.7 The NFA of the banking system declined during most of FY06. The decline was evident in both NFA of SBP and NFA of scheduled banks. The SBP NFA has been declining mainly due to continuation of SBP's foreign currency support to exchange rate throughout FY06.[2] The expectations of the relative stability in the rupee due to this SBP liquidity support, led to a slower growth in foreign currency deposits (FE-25 deposits) of scheduled banks. Further, the stable exchange rate, together with rising rupee interest rates, led to a rise in trade-related loans against foreign currency deposits and fall in scheduled banks' foreign assets.[3] These two developments meant that scheduled banks' NFA also declined in FY06 (see **Figure 1.1**).

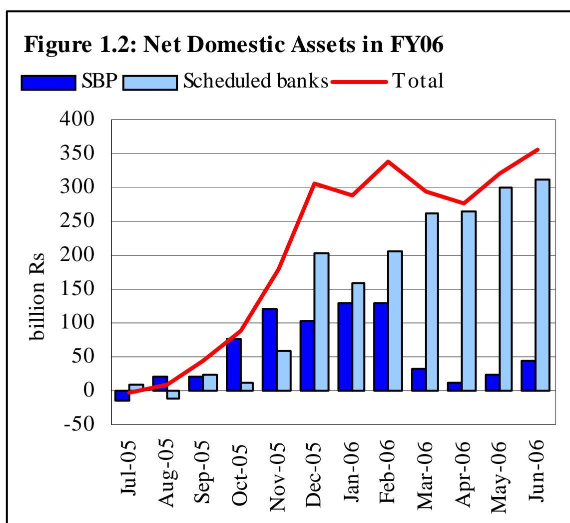
Figure 1.1: Net Foreign Assets in FY06



1.8 However, after having declined by Rs 80.8 billion during Jul-Feb FY06, NFA of the banking sector took a sharp (but an expected) upturn during March 2006 mainly on the back of (1) long waited receipts of privatization proceeds of PTCL and (2) receipts against the issuance of Euro bond. These flows propped up the SBP NFA by Rs 71.8 billion during the month and also offset the continued weakness in NFA of commercial banks. As a result, the NFA of the banking system witnessed a net increase of Rs 50.1 billion (7.9 percent) during FY06 compared to Rs 53.7 billion (9.2 percent) in FY05.

1.9 The NDA of the banking system witnessed a growth of 17.0 percent during FY06 compared to 22.4 percent growth experienced during FY05 (see **Figure 1.2**).

Figure 1.2: Net Domestic Assets in FY06



1.10 The cumulative government borrowing for budgetary support from the banking system remained at Rs 70.9 billion during FY06, which was well within the annual target of Rs 98.0 billion for the year. However, this performance masks the sharp increase in budgetary borrowing to Rs 148.8 billion at end-February 2006 (Rs 178 billion borrowed from SBP was partially offset by the

2 SBP has been providing foreign exchange for imports of some key commodities (mainly oil) since November 2004.

3 Since trade-related loans against foreign currency deposits are treated as domestic assets of the scheduled banks, this resulted in substitution of foreign currency assets with the domestic currency assets.

retirement to the scheduled banks by the government). The increase in budgetary borrowing was mainly due to a rise in government expenses on account of earthquake-related activities as well as delays in receipts of external financing. As expected, the inflows under PTCL privatization and the issuance of Euro bonds during March 2006 allowed the government to retire a large part of the borrowings from SBP.

1.11 The SBP continued to finance the budgetary needs of the government throughout FY06, showing Rs 135.1 billion during FY06. In the meanwhile commercial banks' registered a net retirement of Rs 64.1 billion.

1.12 Credit to private sector showed an increase of Rs 401.8 billion during FY06 against the annual credit plan target of Rs 330 billion for the year. However, this was significantly lower than the Rs 437.8 billion increase during the corresponding period of FY05. This slowdown is despite the larger increases in trade related loans and the private sector commodity finance during Jul-May FY06 compared with the preceding year. Tighter liquidity conditions in the inter-bank market as a result of SBP tightening measures probably contributed to the slowdown in private sector credit.

1.13 The balance sheets of banks continued to expand quite significantly as their deposits base during FY06 expanded by 14.0 percent (Rs 366.5 billion) against the expansion of 20.5 percent (Rs 390.8 billion) in the corresponding period of last year.

Annex 2: Regional Economies – their Performances and Policy Response

India

2.1 After showing an impressive growth of 6.9 percent during FY05, the Indian economy is set for a growth of around 7.5 percent in FY06. The international oil prices have impacted the country's trade balance adversely. Consequently, the current account balance is expected to widen to 2 percent of GDP in FY06 (see **Table 2.1**). Despite partial pass through of international oil prices to domestic economy, inflation has started creeping upwards.

2.2 India has responded by tightening liquidity through increasing the reserve requirements and the policy interest rates to 7.0 percent on July 26, 2006. In the external sector, India has allowed two-way flexibility, initially allowing appreciation of the Indian currency, possibly in response to China's revaluation. However of recent, Indian currency has witnessed depreciation.

Table 2.1: Selected Indicators of Regional Countries

	2003	2004	2005	2006
Pakistan				
Real GDP growth (% change)	4.8	7.5	8.6	6.6
CPI inflation	3.1	4.6	9.3	7.9
External debt to GDP	42.5	36.4	32.4	27.2
ER (Rs. /US$, end of the period)	57.7	58.1	59.6	60.1
Current account (as % of GDP)	4.9	1.8	-1.4	-3.7
India				
Real GDP growth	4.6	8.5	7.5	8.4
CPI inflation(industrial workers)	4.1	3.5	4.2	4.9
External debt to GDP	20.3	17.8	17.4	15.8
ER(Rupee/US$, end of the period)	47.5	43.6	43.7	46.1
Current account (as % of GDP)	1.2	1.7	-0.8	-1.3
Bangladesh				
Real GDP growth	5.3	6.3	5.5	6.0*
CPI inflation (annual average)	4.4	5.8	6.5	7.5*
External debt to GDP	32.7	31.8	30.9	N.A
ER (Taka/Dollar)	57.9	58.9	61.4	69.4
Current account (as % of GDP)	0.3	0.3	-0.9	-1.9
Sri Lanka				
GDP growth	6.0	5.4	6.0	8.1*
CPI inflation	2.6	7.9	10.6	6.4
External debt to GDP	64.6	63.7	55.4	N.A
ER(Rs./Dollar)	96.5	101.2	100.5	102.9
Current account (as % of GDP)	-0.4	-3.2	-2.8	N.A
Philippines **				
GDP growth	4.5	6.0	5.1	5.5
CPI inflation	3.4	5.8	7.4	7.3
External debt to GDP	72.5	63.7	55.5	53.9
ER(Peso/Dollar, End of the Period)	55.6	56.3	53.1	52.3
Current account (as % of GDP)	0.4	1.9	2.4	4.2

Source: Websites of central banks

* projections/estimates

** Pertains to Jan-Mar 2006.

Bangladesh

2.3 Despite devastating floods and the impact of higher international oil prices, Bangladesh's economy recorded a growth of 5.5 percent during FY05. Monetary aggregate growth of 17 percent was considerably higher than 13.4 percent recorded in FY04. Annual average inflation rose from 5.8 percent to 6.5 percent in FY05 and is projected to rise further. As a consequence of higher international oil prices and expansion in the domestic economy, the current account balance reversed from a surplus of 0.3 percent of GDP in FY04 to a deficit of 0.9 percent of GDP during FY05.

2.4 The Bangladesh Bank has responded by gradually tightening the monetary policy through increase in the Cash Reserve Requirement (CRR), Statutory Liquidity

Requirement (SLR) and treasury securities rates.[1] On the external front, authorities have resorted to significant depreciation of domestic currency which recorded a depreciation of 9 percent during FY05.

Sri Lanka

2.5 The Sri Lankan economy demonstrated its resilience once again in 2005 by growing at a rate of 6 percent, exceeding the expectations in the immediate aftermath of the tsunami disaster of 2004. Inflation was subdued through prudent monetary policy measures and by favorable developments in aggregate supply. On the external front, overall balance of payment remained in surplus during 2005 despite the deficit in current account. Substantial foreign aid pledged by the bilateral and multilateral donors in the aftermath of the tsunami and improved BOP surplus strengthened the exchange rate.

2.6 The thrust of monetary policy throughout 2005 was on curbing burgeoning inflationary pressures in the economy, while supporting economic growth and mitigating the negative impact of several adverse shocks. The central bank tightened monetary policy during 2005; policy interest rates were gradually raised in 2005 and 2006 thereby reversing the low interest rate regime that prevailed from 2003 to November 2004.[2]

Philippines

2.7 The Philippines' economy recorded GDP growth of 5.1 percent during FY05 despite slowdown in exports and decline in agricultural production. GDP growth was mainly driven by services on the output side and consumer spending on the demand side. Although, the pass through of higher international oil prices was low so far, inflation at 7.4 percent was significantly higher than the target range of 4-5 percent.

2.8 On the external front, the overall balance of payments position reversed to a surplus, as both the current and financial accounts improved. During 2005 peso strengthened by 1.2 percent in response to the sustained dollar inflows from remittances and portfolio and direct investments.

2.9 The central bank has opted to tighten monetary policy by raising its key policy interest rate three times by a cumulative 75 basis points during 2005 in order to curb inflationary expectations and achieve the targeted inflation range.[3]

[1] In March 2005, the Bangladesh Bank increased the CRR by half percentage point and from October, SLR was also raised from 16 to 18 percent. Similarly, 1-month and 3-month Treasury bill rates were revised upward from 3 to 7 percentage points.

[2] The last increase in short-term interest rates was on July 22, 2006, when the central bank raised the policy rate by 12.5 basis points.

[3] Bangko Sentral ng Pilipinas follows an inflation targeting regime.

Annex 3: End-June Impact on Growth of Monetary Aggregate

3.1 The provisional number on the monetary survey shows that money supply has grown by 15.0 percent during FY06. It may be pointed out that money supply had increased by 13.4 percent till the last week of Jun FY06. The 1.6 percentage point increase in M2 at end of the fiscal year was in line with the SBP projections of 14.8 percent for FY06.[4] Nevertheless, as evident from **Table 3.1**, FY04 onwards, monetary accounts on the basis of last week of June position continuingly project lower monetary growth than is actually recorded for the complete fiscal year.

Table 3.1: M2 Growth

percent

	Till first week of June	Till last week of June	At end-June	Change in percentage points	
	(1)	(2)	(3)	(2) - (1)	(3) - (2)
FY02	12.1	15.0	15.4	2.9	0.4
FY03	16.0	17.4	18.0	1.4	0.6
FY04	16.4	17.2	19.6	0.8	2.4
FY05	16.0	16.2	19.3	0.3	3.1
FY06	12.9	13.4	15.0	1.5	1.6

3.2 The surge in monetary growth immediately before end-June every year, generally reflects the end year impact. It is common knowledge that the increases in monetary benefits are linked to the performance in the banking industry. Therefore, the credit officers in a bank tend to exert extra efforts towards the year or quarter end so that they can prop up their achievements. **Figure 3.1** shows the impact of seasonal variation in economic activities on selected monetary aggregates.

3.3 It is, however, important to note that not all of these activities are genuine in the sense that sometimes economic agents have incentives to fictitiously improve their performance through deceptive practices. For example, the credit officers in a bank may encourage their clients to fully consume their credit lines; the amount would then be simultaneously credited to the clients' current account. After the closing of accounts, the advances are repaid. This is essentially a book entry as the credit extended is not used to generate any economic activity. Similarly, a business officer in a bank may persuade his/her client to create temporary short-term deposits with the bank. Such deposits are withdrawn immediately after the closing of accounts. Thus, a part of the rise in private sector credit and in banks' deposits is shown in **Figure 3.1** (immediately before end-June) can be attributed to the 'window dressing of balance sheets'.

3.4 The extent of window dressing on banks' deposits and private sector credit can be gauged from **Table 3.2**. It is clear that during the period 2-weeks before end-June FY05, banks increased their deposit base by Rs 113.2 billion. Out of these,

Table 3.2: Incremental Flows under Banks' Deposits and Private Sector Credit

billion Rs

	2-weeks before end-June	2-weeks after end-June	Outflows as % of inflows
	(1)	(2)	(2) ÷ (1)
Deposits with banks			
FY04	73.8	-18.7	25.3
FY05	113.2	-49.6	43.8
FY06	117.0		
Private sector credit			
FY04	44.0	-10.5	23.8
FY05	59.9	-30.4	50.7
FY06	68.1		

4 See **Table 1.2**; *Third Quarterly Report for FY06* and http://www.sbp.org.pk/ecopd/Annual_Credit_Plan_FY07.pdf

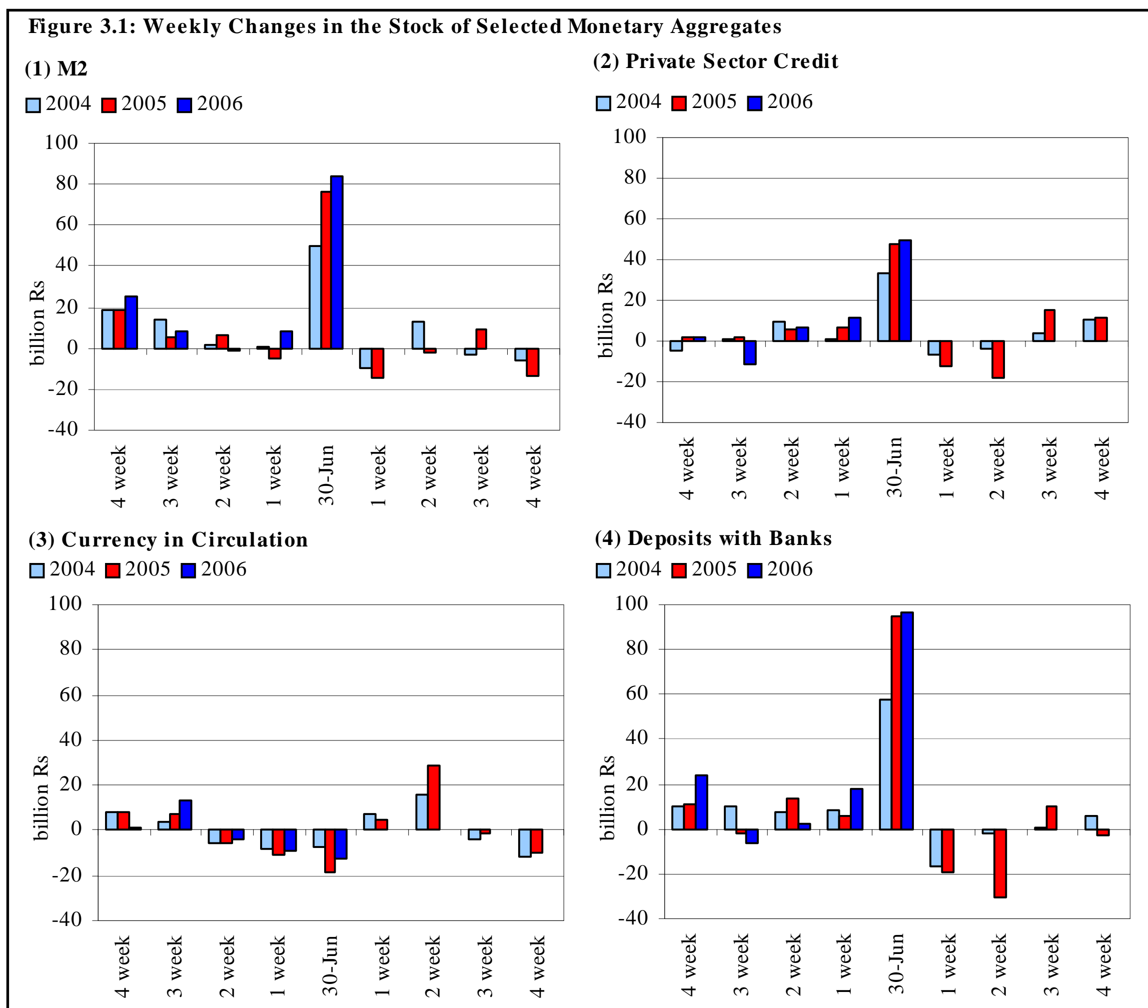


Figure 3.1: Weekly Changes in the Stock of Selected Monetary Aggregates

deposits of Rs 49.6 billion (around 44 percent) were withdrawn within 2-weeks after the end of the fiscal year. Similarly, banks extended around Rs 60 billion as credit to the private sector during the last two weeks of FY05; half of the credit extended during this period was retired within the next 2-weeks.

3.5 An important implication of window dressing is that it temporarily inflates the end-June stock of monetary aggregates. However, the extent of reversal in the first two weeks is also distinctly apparent for the deposits and the private sector credit. Moreover, the end-June increase in deposits is accompanied by the decline in stocks of currency in circulations, which also gets reversed in the subsequent two weeks. However, this reversal is relatively weaker in stock of M2 probably due to aggregation of different components, which may cancel out the impact on both assets and liabilities side of the banking system balance sheet (as evident in a rise in currency in circulation during the first two weeks of the fiscal year as against a decline in deposits in the same period) end-June increase in stock of M2 does not reverse in subsequent weeks. This is a manifestation that credit expansion and deposits mobilization in the last weeks of June permanently increases the stocks of M2 to the extent of their genuine intermediation efforts, which also seems to be

substantial. Nevertheless, the window dressing part is also significant as apparent in the immediate reversal (after end-June) in credit, deposits, and currency in circulation.

Annex 4: Impact of Changes in Reserve Requirements

4.1 Reserve requirement is one of the monetary policy tools at the disposal of the central banks. There are two types of reserve requirements: Cash Reserve Requirement (CRR) and Statutory Liquidity Requirement (SLR). While CRR is a percentage of banks' Time and Demand Liabilities (TDL) which the banks are required to hold as cash with the central bank; SLR is a percentage of TDL which the banks are required to hold in the form of approved securities. Through the reserve requirements, central banks can guide the overnight rates that in turn changes the rest of the term structure of interest rates. This is how, in the medium term, changes in reserve requirements are used to influence the credit expansion by affecting lending and deposit rates.

4.2 Banks in Pakistan, till 21st July 2006, were required to maintain CRR of 5 percent on weekly average basis (subject to daily minimum of 4 percent) and SLR of 15 percent of their TDL. While calculating both the CRR and SLR, there was no distinction on the basis of maturity profile of liabilities. However, effective 22nd July 2006, the SBP has raised SLR requirements from 15 to 18 percent of the total of TDL and has introduced separate CRR on demand and time liabilities. Specifically, the CRR has been set at 7 percent (weekly average) of total demand liabilities (subject to daily minimum of 4 percent) and 3 percent of total time liabilities on weekly average basis (subject to daily minimum of 1 percent).[5] Further, revisions have also been made in defining the demand and time liabilities to be used for calculating the required CRR and SLR.[6] Moreover, cash reserve requirements of Islamic banks have also been increased in line with those of commercial banks. However, their SLR remains unchanged at 8 percent of TDL.[7]

Objectives

4.3 The aforementioned changes in the reserve requirements and the definition of TDL are aimed to achieve two distinct objectives, first of which will result in monetary tightening and second will encourage the banks to follow prudential norms. More specifically, the move will result in the following: (i) drain the excess liquidity from the inter-bank market, in order to put upward pressures on the money market rates; and (ii) force the banks to mobilize longer tenor deposits.

Likely implications of change in CRR[8]

4.4 Keeping in view the current composition of bank deposits where almost 87 percent of the deposits are classified as demand deposits (as per new definition), the new requirements would result in the substantial draining of liquidity from the inter-bank market. The volume of additional cash requirements would be around rupees 40 to 45 billion. This would lay upward pressures on the overnight rates and in turn on the weighted average lending rates for the private sector.

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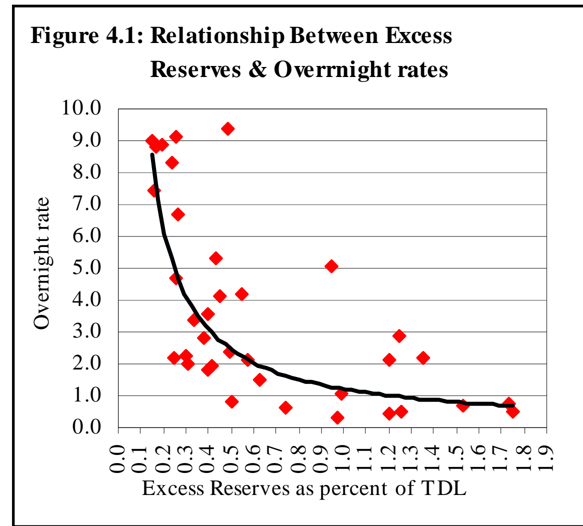
[5] BSD circular number 9, dated July 18, 2006.
[6] For new definitions of demand and time liabilities see annexure to the BSD circular 9.
[7] BSD circular number 10, dated July 22, 2006.
[8] The impact analysis is based on banks' demand and time deposits that constitute a major portion of banks' liabilities.

4.5 It is worthwhile here to describe the mechanism with which cash reserve requirements impact the money market and other interest rates. Commercial banks generally keep cash which is more than the required under CRR to settle day-to-day banking transactions. The "excess cash reserves" (i.e. cash over and above the required level) are crucially important in determining the liquidity conditions in the money market and hence the short-term interest rates. When excess reserves ratio[9] falls very close to zero, overnight interest rates shoot-up near the level of the discount rate;[10] thus signifying a period of liquidity crunch. In contrast, the increase in the excess cash reserve ratio causes the overnight rates to fall and may ultimately crash towards zero. This is the period when banks are literally "drowning" in liquidity. If this condition persists for a significant period, other interest rates decline as well, thereby pushing the banks on a lending spree. In short excess reserves ratio is inversely related with overnight interest rates. Moreover, this relationship is non-linear i.e. the upward or downward movement in the interest rates depends not only on the extent of changes in excess reserve ratio, but also on the level of excess reserves ratio when the change was made. This relationship is shown in **Figure 4.1**.

Figure 4.1: Relationship Between Excess Reserves & Overrnight rates



4.6 There would also be an additional impact on the deposits rate that comes from the clear incentives given to the banks in terms of reduced CRR on long-term deposits. Indeed, this would not only help in narrowing the spread between weighted average lending and deposit rates but also aid in narrowing the gap between banks' longer term assets and liabilities.

9 Excess reserves expressed as percent of total of time and demand liabilities.
10 The rate at which the central bank provides overnight accommodation to banks.