5 Money and Credit

5.1 Overview

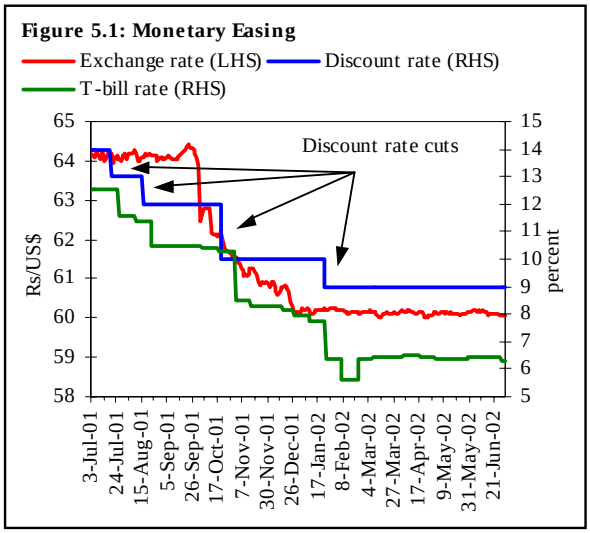
While the seeds of the monetary accommodation during FY02 lie in the macroeconomic discipline witnessed during the previous fiscal year, FY02 saw important structural shifts that considerably enhanced the SBP's ability to implement this monetary easing, and underpinned the phenomenal 14.8 percent rise in M2.

On the whole, interest rates fell dramatically in FY02, with the benchmark weighted-average 6-month T-bill yields falling by 6.6 percentage points, on the back of a 5.0 percentage point drop in the SBP discount rate during the period. The monetary easing should have a salutary short-term impact on the economy, but the high M2 growth (the strongest for the last 5 years), when seen in conjunction with the prevailing low GDP growth, could become a source of concern with respect to the build-up of inflationary pressures in the economy.

It must be noted that the tighter monetary posture witnessed in FY01 stemmed from both, the relative instability of the exchange rate during the year, as well as stringent IMF conditionalities, including tight limits on the SBP NDA. The fact that interest rates were raised even as a continuing decline in the domestic inflation rate drove up the real interest rates, serves to highlight the role of the exchange rate in the FY01 tightening as well as in the subsequent easing.

In fact, as soon as FY02 ushered in a degree of stability in the exchange rate, SBP promptly moved to cut the discount rate by a percentage point in July 2001, reversing the corresponding June 2001 increase. Then, in the face of the continuing stability in the exchange rate, it quickly followed up with yet another one percentage point cut in the discount rate in August 2001, before pausing to assess the impact (see **Figure 5.1**).

Figure 5.1: Monetary Easing



However, the macroeconomic environment changed dramatically in the second quarter. Specifically, September 11 shocks were reverberating in the domestic economy by October 2001, with a sharp drop in the already low net credit growth, and a very uncertain export outlook. The SBP responded to this crisis by lowering the discount rate by an unusual 2.0 percentage points, taking it to an all-time low of 10.0 percent. It then waited to gauge the impact of the earlier discount rate reductions before implementing a final 1-percentage point cut to take it to a new all-time low of 9.0 percent in response to an *apparently* continuing weakness in net credit demand by the private sector.

The absence of further rate cuts during FY02 simply reflects (1) the end of the seasonal credit off-take period, (2) a significant drop in the weighted average lending rate, and (3) the concerns that an excessive reduction in interest rates over too short a period could de-stabilize the financial system. The impact of the easier monetary stance on net private sector credit is discussed in **Section 5.6**.

Over the last few years, while monetary policy gained a degree of independence from fiscal policy, it remained captive to the exchange rate considerations. Interestingly, these shackles persisted through the whole of FY02 despite the current account surpluses seen post-September 2001, which led to a considerable appreciation of the Rupee. [1] However, the focus changed dramatically during the year as the emphasis shifted from preventing a *depreciation* of the Rupee, to avoiding a very abrupt *appreciation*.

As rising foreign currency inflows swamped the foreign currency markets, the SBP quickly increased its foreign currency purchases from the interbank market.[2] This served two purposes:

- It helped hold down the rise of the Rupee that threatened to debilitate Pakistan's export growth. This protection was obviously essential given that prospects for the continuity of the current account surpluses were still unclear.

- Higher reserves reduced the risk perception of the country, and helped lower the risk of speculative pressures against the local currency in future, because of SBP's increased ability to intervene aggressively in the interbank market.

Thus, by the end-FY02 SBP's net foreign currency purchases totaled US$ 3.9 billion. This represented a 273.7 percent rise over the corresponding figure for the previous year as well as a Rupee liquidity injection of Rs 234.2 billion into the domestic economy. The latter substantially added to the free liquidity of the banking sector during a period of relatively weak growth in net private sector credit.

This excess liquidity with the banking system was a key determinant of a shift in the structure of domestic public debt that saw the government's borrowings from scheduled banks rise sharply at the expense of borrowings from the SBP, without the generation of upward pressure on interest rates.

5.2 Credit Plan FY02

The credit plan for FY02 (see **Table 5.1**), formulated in the beginning of the year, anticipated a monetary expansion of Rs 146.0 billion (9.7 percent) in accordance with the projected nominal GDP growth of 9 percent. This expansion was to be achieved through an increase in the credit expansion to the private sector, and higher growth in Net Foreign Assets, and a retirement of government borrowings from the banking system.

These were projected on the basis of sound macroeconomic fundamentals reflected in the targeted reduction in the fiscal deficit, a current account surplus and a relatively stable exchange rate. This credit plan, however, was revised to factor in the post-September 11 developments. Although the overall growth in M2 was revised marginally downwards to 9.5 percent, in terms of its composition between NFA and NDA, the revised credit plan had major changes.

In anticipation of the foreign exchange inflows in the form of cash assistance or rescheduling, the NFA target was revised upwards from Rs 55.0 billion to Rs 75.4 billion. The compensating factor to neutralize this proposed expansion was the target for government credit retirement, which was increased from Rs 20.0 billion to Rs 54.0 billion. This revision in government credit retirement was done on two grounds: (1) the external inflows would enable the government to make expenditures with these resources, thereby reducing its borrowing needs from the banking system for budgetary support, and (2) a shifting of commodity operations to the private sector would allow the government

[1] See **Section 9.7** for details.
[2] For details of the SBP's kerb market and interbank market foreign currency purchases see **Section 9.7**.

to retire borrowings under this head.[3] Credit allocation for the non-government sector was increased from Rs 111.0 billion to Rs 124.2 billion in the revised plan. The revised and the original credit plan targets are given in **Table 5.1**.

Table 5.1: Credit Plan and Actual Outcome
billion Rupees

		Credit plan FY02		Actual outcome	
		Original	Revised	FY02[P]	FY01
A.	**Government sector borrowing (net)**	**-20.0**	**-54.0**	**12.7**	**-46.7**
	1. Net budgetary borrowing	-26.0	-19.0	12.5	-32.3
	From SBP			-112.0	-31.6
	From scheduled banks			124.4	-0.8
	2. Commodity operations	5.0		5.3	-12.5
	3. Net effect of zakat fund/privatization proceeds	1.0	1.0	2.5	-1.9
	4. Privatization commission's account with NBP			-7.6	0
B.	**Non-government sector borrowing (net)**	**111.0**	**124.2**	**19.0**	**69.2**
	1. Autonomous bodies[1]	12.0	18.0	-14.3	11.6
	2. Net credit to private sector and PSCEs	99.0	106.1	33.3	57.6
	Commercial banks	91.0	98.1	42.7	67.0
	PSCEs other than B (1)			-1.4	12.3
	Private sector			44.1	54.7
	of which export refinance			*-13.3*	*-65.2*
	Specialized banks	7.0	7.0	8.1	1.7
	Other financial institutions	1.0	1.0	-14.5	-7.7
	PSCEs special account-debt repayment with SBP			-2.9	-3.3
C.	**Other items (net)**	**0.0**	**0.0**	**-12.0**	**30.9**
D.	**Net domestic assets of the banking system**	**91.0**	**70.2**	**19.7**	**53.4**
		(6.08%)	(4.68%)	(1.31%)	(3.69%)
E.	**Net foreign assets of the banking system**	**55.0**	**75.4**	**206.2**	**72.7**
F.	**Monetary assets (M2)**	**146.0**	**145.6**	**225.8**	**126.0**
		(9.74%)	(9.54%)	(14.80%)	(9.00%)

[P] : Provisional

[1] WAPDA, OGDC, PTC, KESC, PR, PIA and PS

Source: Economic Policy Department, SBP

5.3 Bank Borrowings for Budgetary Support

During FY02, the government borrowed Rs 12.5 billion for budgetary support from the banking system. On face value, this was in breach of net retirement targets set in both, the FY02 credit plan (Rs 19.0 billion) and the IMF projections (Rs 6.9 billion). However, taking into account the waiver given by the IMF on account of KESC re-capitalization and the tax

Table 5.2: Net Budgetary Borrowing
billion Rupees

	FY02
Net budgetary borrowing (actual)	12.5
Adjustments	
KESC (-)	30.0
Tax refunds to banks (-)	22.0
Net budgetary borrowing (adjusted)	-39.5
IMF target	-6.9
Credit plan target	-19.0

[3] Borrowings for commodity operations by the government had accumulated to Rs 94.9 billion by the end of FY01. In theory, the government would buy crops from farmers with this credit from the banking system and retire it once the purchased stocks were sold. However, the stock of this debt rose over time, as the government was unable to fully retire annual borrowings due to losses and other factors.

refunds to banks, the government borrowing remains well within the target (see **Table 5.2** and **Section 5.5** for details).

A number of elements are of particular interest in this performance:

- Although the government's borrowings were initially quite consistent with historical trends, this changed dramatically by October 2002 as: (1) the government received a US$ 600 million grant from the US and (2) the Rupee liquidity jumped amidst heavy SBP purchases in the interbank market.[4] The former significantly depressed cumulative net government borrowings, while the latter helped the government to substitute its SBP borrowings with borrowings from commercial banks.

- Given that the increase in Rupee liquidity resulted from higher growth in the SBP NFA (through market purchases); and that a portion of this increased market liquidity was being channeled to the government (via rising net sales of government securities); and that the government, in turn, was retiring its SBP borrowings (reducing the SBP NDA), it can be seen that the rise in SBP NFA was *sterilized* by the fall in the SBP NDA (See **Table 5.3 and Figure 5.2**). Thus, reserve money growth was held down to 9.6 percent.

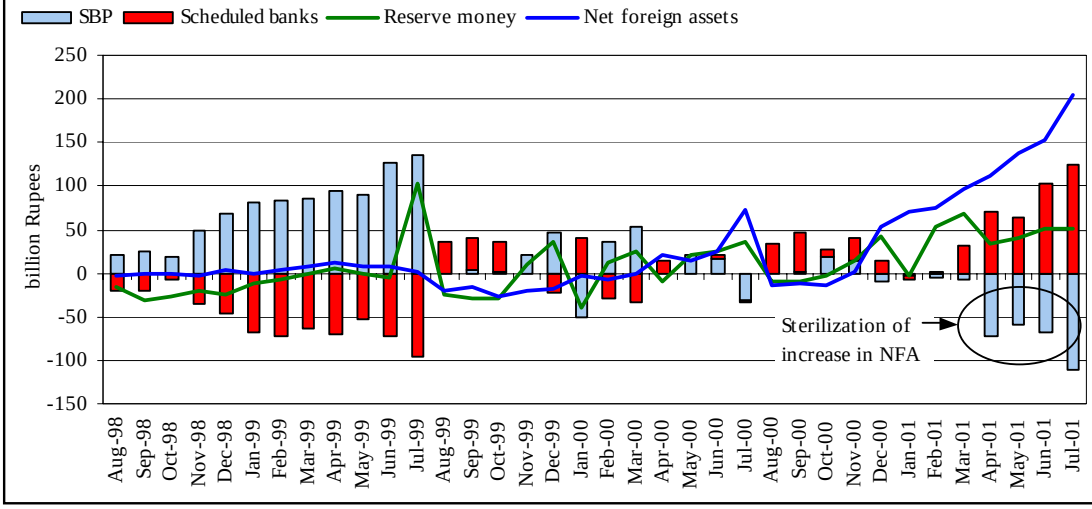
Table 5.3: Sterilization

billion Rupees

	Impact on SBP	
	NFA	**NDA**
Interbank US$ purchases	157	-
Interbank US$ sales	-7	-
Kerb US$ purchases	84	-
Government borrowings from commercial banks (Rs 160.4 billion)	-	-
Retirement of government securities with SBP	-	-287
Net impact	**234**	**-287**
Net impact on Reserve Money		**-53**

- More interestingly, the sterilization of SBP NFA brought an extraordinary change in the structure of the government borrowings from the banking system, with a sharp 50.3 percent retirement of SBP debt, which is offset by a jump in the borrowings from scheduled banks (see **Section 8.2** for details).

Figure 5.2: Government Borrowings for Budgetary Support, NFA and Reserve Money



[4] A surge in inflows into interbank market allowed the SBP not only to switch its purchases from the kerb market but also to increase the quantum of these purchases.

- The timing of the increased availability of external financing was also fortuitous, helping keep interest rates down precisely during the period of peak seasonal demand.

- Finally, the share of the government's bank borrowings in financing the overall budgetary deficit *fell* during FY02, even though the borrowings *increased* in absolute terms. This was because (1) large one-off increase in external financing; and (2) increased availability of non-bank borrowings due to rising inflows into the NSS, and high PIB sales to non-banks.

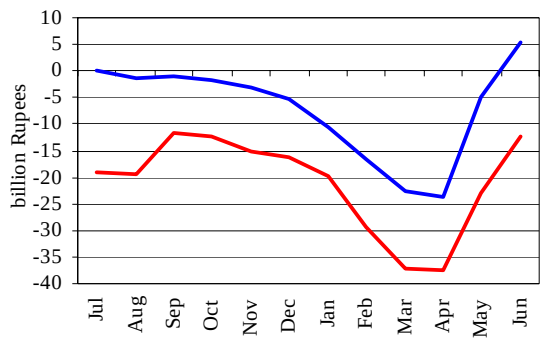
5.4 Commodity Operations

At first look, government borrowing for commodity operations seems to have risen considerably. However, this Rs 5.3 billion rise does not reflect an increase in the government's commodity operations:

- The level of retirement during FY02 was lower than that seen in FY01. The heavy FY01 retirement of commodity finance reflects exceptionally high commodity financing in the previous year (FY00). Similarly, the relatively low FY01 wheat purchases (which accounts for most of the credit off-take under commodity operations) meant that the FY02 retirement was lower (see **Figure 5.3**).

- The government's actual wheat purchases during FY02 have probably been slightly lower than in FY01, as it already holds stocks purchased in the previous year.

Figure 5.3: Commodity Operations (Cumulative)



5.5 Autonomous Bodies

Developments during FY02 make the trend in borrowings by autonomous bodies quite different from FY01, especially after October 2001.

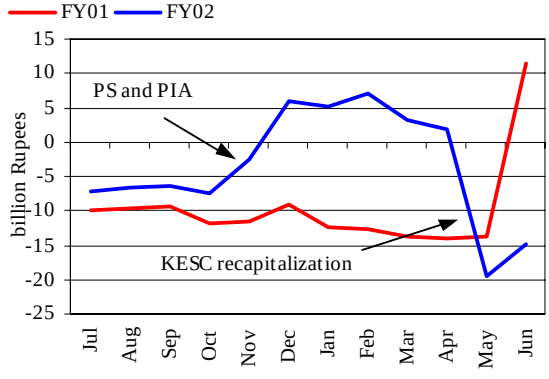
- First, the list of autonomous bodies changed. SSGC and SNGPL were excluded, and PIA and Pak Steel were classified as autonomous bodies.

- Second, a usual sharp surge in borrowings at the end of the year was not visible inFY02. This was because autonomous bodies, other than WAPDA, were restricted from borrowing.

This head usually witnesses an overall retirement trend during most of the fiscal year and, with a sudden borrowing jump in the month of June when these autonomous bodies borrow heavily to keep their credit lines intact. This year a surge in borrowing is evident after October 2001, with sharp decline in May 2002 (see **Figure 5.4**) as:

- PIA borrowed Rs 1.7 billion in October 2001 and KESC borrowed Rs 4.9

Figure 5.4: Credit to Autonomous Bodies (Cumulative)



billion in November that led to a sharp increase in net credit during October and November 2001.

- During May 2002, KESC was re-capitalized, with Rs 30.0 billion, by the government to bring it to the point of sale. For this purpose, Rs 22.0 billion owed to the commercial banks were retired by issuing T-bills to them.

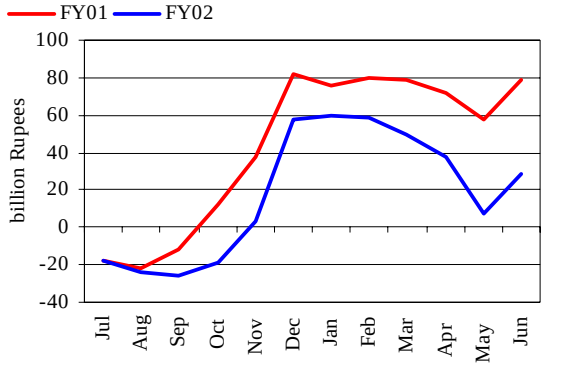
5.6 Credit to Private Sector

The net credit to the private sector grew by Rs 44.1 billion in FY02 against a growth of Rs 54.7 billion seen in FY01 which, taken at face value, represents a 19.4 percent year-on-year decline. However, as explained below, the FY02 figures are not comparable with the statistics of earlier years.

- Following the 2nd review under PRGF in May 2002, SBP and IMF agreed to scrutinize the data on Public Sector Enterprises (PSEs). As a result, out of some 143 PSEs, 94 were reclassified as private corporations;[5] two autonomous bodies[6] were reclassified as private corporations; and two PSEs were included in autonomous bodies.[7]

- Further, the merger of two non–bank financial institutions, NDFC and Faisal Investment Bank, with commercial banks (NBP and Faisal Bank Limited) inflated the FY02 figures for credit to private sector.

Figure 5.5: Aggregate Credit to Private Sector, PSEs and Autonomous Bodies (Cumulative)



Unfortunately, data constraints make it impossible to disentangle the various impacts of these shifts into specific categories. Thus, in order to analyze the FY02 trends in relation to FY01 developments, one is forced to rely on the *aggregate* net credit figures, i.e. the net credit extended by commercial banks to (1) autonomous bodies, (2) PSEs and (3) the private sector.

Aggregate net credit expansion by commercial banks was Rs 28.3 billion against Rs 78.6 billion in FY01 and the revised credit plan figure of Rs 116.1 billion (see **Figure 5.5**). It is important to note that the actual expansion in FY02 becomes even lower if we adjust these figures for the merger of two non-banks with commercial banks.

Up to end-March 2002, while the *net* credit growth was Rs 29.5 billion year-on-year, *gross* disbursement figures registered an increase of Rs 136.1 billion over the corresponding FY01 figure (see **Table 5.4)**.

Table 5.4: Gross vs Net Credit Disbursements (Cumulative)

billion Rupees

	Gross disbursements		Change	Net credit		Change
	FY01	FY02		FY01	FY02	
Q1	225.5	288.7	63.3	-10.8	-25.5	-14.6
Q2	509.1	592.5	83.4	81.7	57.9	-23.8
Q3	762.1	898.2	136.1	78.7	49.2	-29.5
Q4	1,077.6	1,212.3	134.8	78.6	28.3	-50.3

It is also worth noting that the gross disbursement figures in FY02 remained higher

[5] When the list of PSEs from banks was compared with that of Ministry of Finance, it emerged that banks were still including in their list about 94 corporations, which were not public enterprises on the basis of the Program definition. Some of them had been privatized over the last 15 years, a few of them had been liquidated and their debt had been taken over by the government and a few large ones operating in oil and gas sector were not majority owned by government.

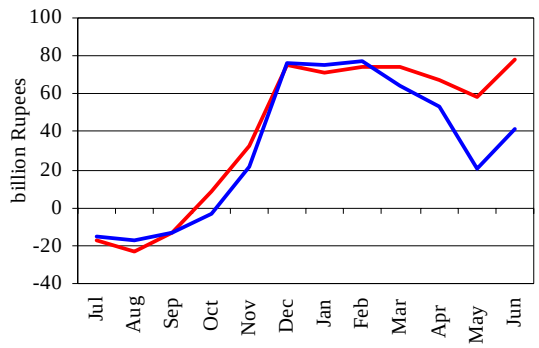
[6] Sui Southern Gas Pipe Lines Limited and Sui Northern Gas Pipelines limited.

[7] Pakistan Steel Mills and Pakistan International Airlines.

than FY01 through out the year, except for November and June. While this difference between the net and gross figures probably includes an element of re-pricing of loans, this would have impacted the disbursements only after December 2002, when weighted average lending rates began to decline. The earlier shift thus suggests that higher fresh disbursements were also masked by rising retirements.

If we net off export finance from net aggregate credit figures, the credit extended by commercial banks turn out to be slightly higher in the first and third quarter of FY02 (see **Figure 5.6**). A rather steep decline in the last quarter is mainly attributable to (1) ban by SBP on borrowing of PSEs/ Autonomous bodies after March (as a precautionary step to avoid any breach of performance criterion target for PSEs) and (2) retirement of Rs 22.0 billion KESC debt to commercial banks. In FY01, autonomous bodies and PSEs together had borrowed Rs 30 billion in the last quarter. If we take into account these two major factors, the credit expansion curves almost overlap each other.

Figure 5.6: Aggregate Credit (net) of Export Finance (Cumulative)



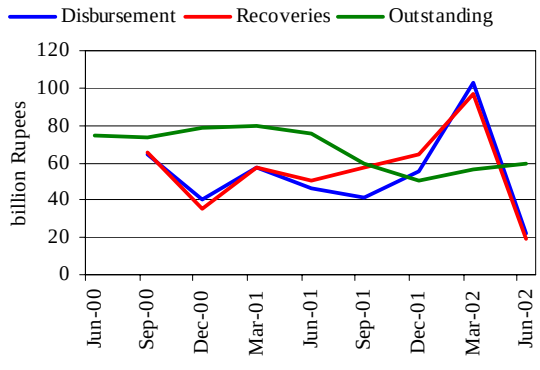
Thus it can be argued that in overall terms, barring September 11 events, the private sector in FY02 may have been better off than FY01 in terms of (1) market liquidity and availability of funds,[8] (2) lower input prices, (3) lower mark-up rates (4) higher CBR refunds and (5) increasing quantum of foreign currency loans. A detailed assessment of the relative availability of funds to the non-government sector is presented in (see **Section 6.3.2**).[9]

Data for manufacturing, and for exports, also indicates that the private sector has borne the brunt of external shocks rather well, which would not have been possible if its funding requirements had gone unmet.

5.7 Export Finance

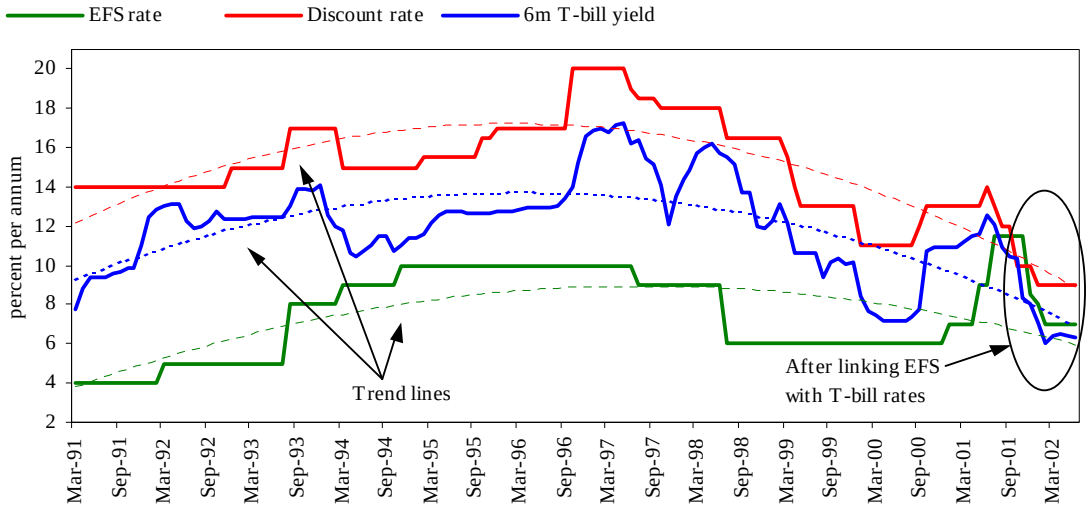
Export finance figures are reflective of the behavior of exporters. The outstanding volume of export finance, which was 75.1 billion in FY00 and Rs 75.4 billion in FY01, came down sharply to Rs 59.3 billion in FY02 (see **Figure 5.7**). This suggests that exporters had earlier been taking advantage of this concessionary scheme and delaying repatriation of export proceeds in order to gain from the customary depreciation of the Rupee. If this was the case, once expectations for a Rupee *appreciation* gained strength, the outstanding export receipts would have been expected to decline sharply. This is exactly what has happened. In fact, anecdotal evidence suggests that exporters even resorted to discounting their existing export bills.

Figure 5.7: Export Finance



[8] In FY01 due to pressure on Rupee, market remained very tight throughout the 2nd quarter.
[9] Discussion in section 6.3.2 includes funds utilized for commodity operations also.

Figure 5.8: SBP EFS, Discount and T-Bill Rates



While retirements under export finance are mainly attributable to appreciation of Rupee, the increase in gross disbursements, especially in the 3rd quarter, seems inspired mainly due to re-pricing. Earlier, SBP linked the mark up rates on EFS scheme with 6-month T-bills rates, but prior to December 2002, these had been adjusted only on a quarterly basis.

However, with effect from December 2001, to give exporters the full benefit of the FY02 cuts in interest rates, SBP began adjusting EFS rates on a monthly basis. As a result Q3-FY02 witnessed unprecedented disbursements of Rs 103.0 billion and almost matching retirement of Rs 96.6 billion (see **Figure 5.7**). The fact that this situation calmed down after SBP issued the directives that the outstanding existing loans would also be priced at new rates, lends support to our view that EFS loans were being re-priced during this period.

It is worth noting that, over the years, there had been a substantial difference in the market rates and EFS rate, distorting the overall interest rate structure. By linking the EFS rate to the 6-month T-bills rate this differential has been substantially reduced (see **Figure 5.8**).[10]

5.8 Net Foreign Assets

As explained earlier, ballooning net foreign assets (NFA) of the banking system were the key drivers of the exceptionally strong M2 growth during FY02.

The initial sharp increase in NFA in November 2001 represents inflow of US$ 600 million from USA, and later inflows of US$ 300 million for logistic support in the second quarter and US$ 640 million from the World Bank in the fourth quarter, contributed to bulk increases during the year (see **Table 5.5**). These were supported by the sustained surge in remittances October 2001 onwards.

Table 5.5: Sources of Increase in NFA - FY02

billion Rupees

Increase in SBP reserves	173
Net SBP purchases	*234*
IFIs and others	*165*
Increase in commercial banks' NOSTRO balances	18
Decrease in non-resident foreign currency deposits	28

[10] Although the subsidy in the form of lower-than-market prevailing rates has reduced, by pegging the EFS rate to T-bill rates, few realize that exporters are presently getting an implicit subsidy by way of SBP's efforts to keep the exchange rate hovering at around the Rs 60/US$ level. This cost is indirectly being borne by the (1) importers, (2) government and (3) the general public.

Other than the sheer extent of the increase, there are two major differences between NFA growth in FY02 and FY01 (see **Figure 5.9**):

- While rising remittances pushed up the NFA of Scheduled banks in FY02, heavy SBP interbank purchases dampened the resulting increase by substituting these with Rupee assets. As a result, contrary to past trends, the NFA growth of the SBP far outstripped the rise in the NFA of scheduled banks.

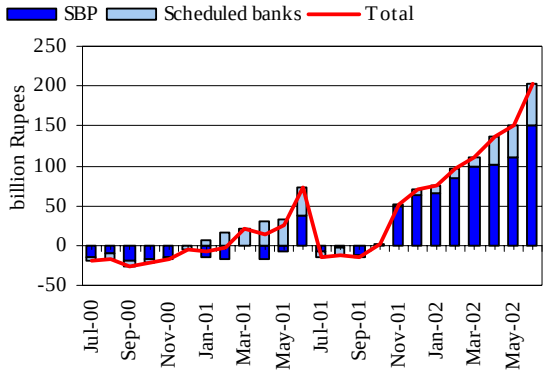
- In net terms, therefore, the growth in NFA of scheduled banks owed more to a decline in liabilities (i.e. a fall in non-residents foreign currency deposits) than to an increase in assets (see **Table 5.6**).

Table 5.6: Growth in Net Foreign Assets

billion Rupees

	Cumulative flows	
	FY01	**FY02**
State Bank of Pakistan	37.7	154.3
Scheduled banks	35.0	51.9

Figure 5.9: Net Foreign Assets

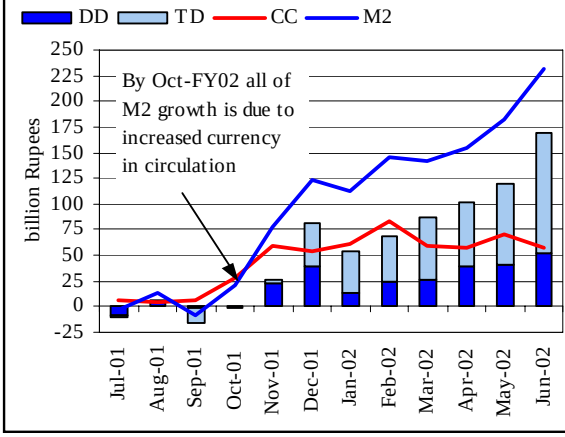


5.9 Components of M2

The unusual monetary developments during FY02 are reflected in the M2 components Q2-FY02 onwards (see **Figure 5.10**). Initially, during Q1-FY02, the pattern was similar to the normal seasonal developments, but it changed abruptly by September 2001, with a sharp jump in currency holdings at the expense of deposits growth, possibly reflecting the considerable increase in economic and political uncertainty during the period.[11]

By December 2001, however, the growth in cash holdings tapered off, and the M2 growth impetus reverted back to deposits,[12] which began recording large net increases (see **Section 6.3.1** for details). However, due to the initial jump, the currency in circulation (CC) contributed heavily to M2 growth for most of the year.

Figure 5.10: Currency in Circulation (Cumulative)



The structure of this increase in deposits during FY02 is also note worthy:

- In sharp contrast to past trends only Rupee deposits saw appreciable growth.[13]

- The growth rate for demand deposits (DD) is well below the historic average (the 5-year average is 15.6 percent).

[11] While the initial impetus to increased cash holdings was probably the September 11 events and the resulting economic shocks (e.g. the strengthening Rupee would have led to liquidation of cash US$ savings), political concerns, particularly fears of a war with India probably spurred precautionary cash holdings towards the end of CY01.

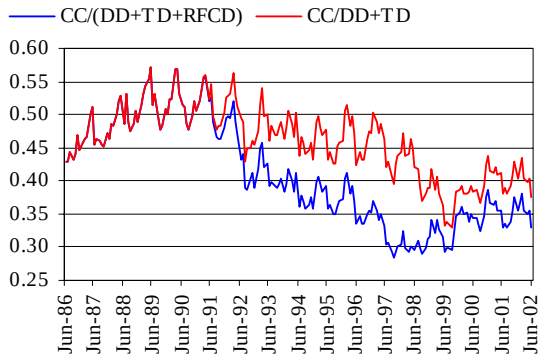
[12] This 'December effect' is a seasonal jump, and is often attributed to "window dressing" by banks seeking to depict an improved annual performance. This surge generally falls back in the following month as is visible in FY02.

[13] FY02 trends in the growth of foreign currency deposits are detailed in **Sections 6.3.1**

- On the other hand time deposits (TD) grew at a phenomenal 19.1 percent, far out-stripping the 5-year average of 12.1 percent. This meant that time deposits provided half of the total M2 growth in FY02 (see **Table 5.7**).

A consequence of the see-saw increases in deposits and currency in circulation during FY02 is that the currency deposit ratio (CDR), which initially increased during the year, ended at 33 percent by end Jun-02 – the same as in FY01 (see **Figure 5.11**). This is a welcome development.

Figure 5.11: Currency Deposit Ratio



The overall CDR has been climbing steadily after reaching a low of 29 percent in FY98, reflecting the dis-intermediary role of the freeze on foreign currency deposits (RFCDs). While the cash to Rupee deposits ratio had continued to decline at that time, by FY00 this too had begun to rise, signaling an *increasing* dis-intermediation (see **Figure 5.11**).

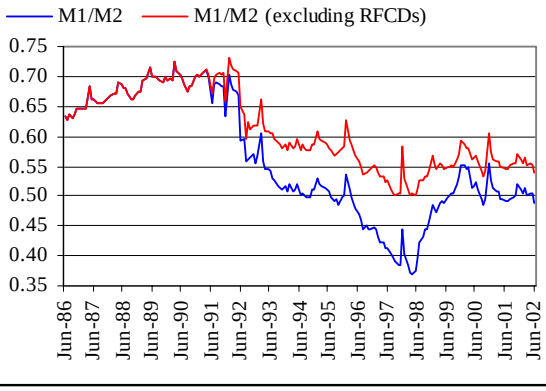
Table 5.7: M2 Components

billion Rupees

	Cumulative flows		Growth	
	FY01	FY02	FY01	FY02
Currency in circulation	19.8	58.4	5.6	15.5
Demand deposits	-0.3	52.6	-0.1	14.0
Time deposits	61.5	116.6	11.2	19.1
RFCDs	41.7	-4.3	37.1	-2.8

Interestingly, the preference for liquid assets is mirroring the same consolidation around FY01 levels as visible in the CDR. The ratio between M1/ M2 that reflects the preference for liquidity had been on the rise since May-98 until it stabilized at approximately 50 percent over the last 3 years (see **Figure 5.12)**.

Figure 5.12: Ratio of M1 and M2



5.10 Money Market

The domestic money markets felt the impact of substantial structural and policy changes in FY02. The most important of these was the significant improvement in the macroeconomic environment that enabled the SBP to ease its monetary stance while remaining comfortably within the parameters of the IMF program. Despite increased liquidity injections in the money market through a pro-active liquidity management by SBP, volatility in overnight rates did not decline significantly. This was partly due to mis-reading of signals by the market participants, and to a certain extent, a significant change in investment behavior of banks towards speculative bidding in auctions.

The tight monetary discipline visible in FY01 was perceptibly eased in FY02. The benchmark 6-month T-bill yield witnessed a steady decline through the fiscal year, as the SBP signaled an easier monetary stance through four successive cuts in the discount rate; the cumulative 500 basis point reduction took the rate to an all-time low of 9 percent. However, as discussed in the overview of the chapter, the SBP objectives for the discount rate changes varied significantly through the period, and this is reflected in the interbank market.

The initial easing of monetary policy began well before the spillover effects of September 11 became visible in the form of substantially increased market liquidity. Q1-FY02 saw two successive adjustments in the discount rate, but in the T-bill auctions during this period, the government's net borrowings increased from both, the SBP and commercial banks.

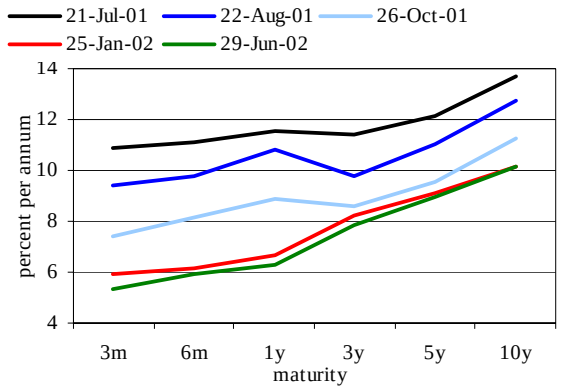
In the subsequent quarters (and especially Q2 FY02) the SBP's monetary stance became even more accommodative as it strove to mitigate economic shocks. In particular, the liquidity injections resulting from SBP's foreign currency purchases from the interbank market were very substantial. Given that net private sector credit demand from the commercial banks remained depressed, and that banks too were apparently unwilling to aggressively pursue credit, interest in government securities increased dramatically (see **Figure 5.16**).

As a result there was a visible shift in the government's borrowings patterns after October 2001. Each successive auction saw increasing reduction in the government's borrowings from the SBP with a corresponding increase in commercial bank borrowings (see **Section 5.3)**. The fact that interest rates *declined* even as the government's borrowings from commercial banks *increased* is a telling indicator of the increase in liquidity and banks' investment preferences.

There is even an argument that bank's expectations of interest rate declines may have been, at least partially, self-fulfilling. A cursory look at the financing of the fiscal deficit shows that the larger contribution was from external and non-bank sources, i.e. the government's increased borrowings from commercial banks simply reflected increased *demand* for government securities, rather than an increased *supply* due to budgetary financing needs.

The easing of the monetary stance in FY02 is reflected well in the downward shifting yield curves (see **Figure 5.13**). At the same time, the shape of the yield curves became steeper, depicting a greater return at the longer end of the curve, i.e. although the long-term benchmark rates - PIB coupon rates - were also reduced; this decrease was lower than the decline in discount rate and T-bill rates.

Figure 5.13: Yield Curves



However, it must be noted that despite the smaller change in the *yield* of the long tenor security, the impact on its market *price* was proportionately larger. Thus, not surprisingly, as expectations of declining interest rates strengthened, interest in the longer tenor instruments soared; 10-year PIBs in particular, were in considerable demand and traded at high premiums.

5.10.1 Open Market Operations

The fixed schedule of fortnightly OMOs was dismantled in July 2001 to give the SBP more flexibility in managing market liquidity. In conjunction with the FY01 shortening of the OMO tenor structure, the move underlined the OMO's primary role as a liquidity management tool, rather than an indicator of the SBP's monetary stance.[14]

[14] See SBP *Annual Report* for FY01

The changes in interbank market interventions are clearly visible in **Table 5.8**; SBP interventions have distinctly increased in both number and scale during FY02, and are more evenly dispersed over the year, as well as among weekdays. [15]

Importantly, the nature of the interventions also changed dramatically in FY02, with a net injection of Rs 185.1 billion as compared to the net absorption of Rs 57.6 billion in FY01. The latter is explainable by the strict IMF targets for NDA last year that compelled a squeeze on banks' liquidity as well as a need to defend the Rupee in the interbank market.

Table 5.8: Open Market Operations

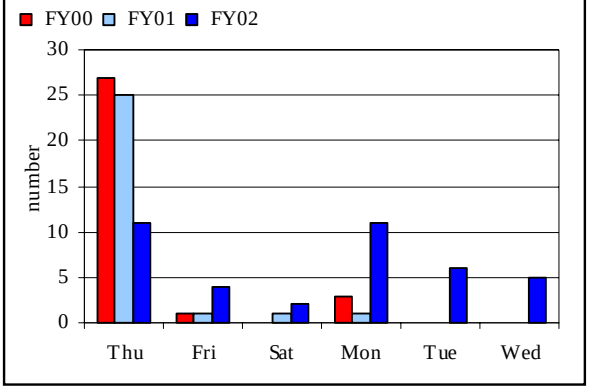
billion Rupees

	Injections			Absorptions		
	FY00	**FY01**	**FY02**	**FY00**	**FY01**	**FY02**
July	4.8	-	1.1	-	7.7	22.1
August	-	-	10.7	21.6	17.2	7.5
September	-	-	49.3	28.2	13.9	4.0
October	18.2	-	50.1	-	-	-
November	4.4	9.4	16.2	5.5	-	-
December	24.5	22.4	11.1	5.0	-	-
January	35.6	13.6	-	-	-	17.6
February	27.6	-	23.9	3.4	27.9	5.2
March	1.8	-	-	-	22.4	-
April	-	-	7.0	12.5	4.9	-
May	9.3	-	35.3	-	9.1	-
June	11.7	-	36.9	-	-	-
Total	**137.9**	**45.4**	**241.5**	**76.1**	**103.0**	**56.4**

Source: Exchange and Debt Management Department, SBP

The need for the FY02 injections, however, is less obvious as, in theory, weak net private sector credit demand and the increased use of external finance by the government to finance the deficit should have left ample liquidity within the banking system. The answer to the apparent anomaly lies in the change in the investment preference of the banks, which opted to overbid aggressively in government security auctions to lock-in investments amidst expectations of a continuing decline in interest rates.

Figure 5.14: Frequency of OMOs



Indeed, there is a possibility that the SBP pro-active liquidity management may have inadvertently encouraged this trend by creating a moral hazard. As evident from **Figure 5.14**, unlike in previous years, the SBP interventions were more numerous and took place on all weekdays. In other words a bank could place speculative bids in auctions secure in the knowledge that auction acceptances in excess of market liquidity would probably result in an early OMO by the central bank. Since (1) the liquidity offered in OMOs was clearly cheaper than resort to the discount window and (2) banks no longer had to wait until a scheduled OMO for relief, the effective cost of overbidding would have certainly decreased.

5.10.2 Discounting of Government Securities by Banks

Apart from a few episodes of discounting, the money market remained fairly liquid during FY02 (see **Figure 5.15**). In the first quarter discounting was due to higher acceptance vis-à-vis maturities in primary auctions of government securities while in second quarter due to seasonal net credit off-take (although low) and Eid outflows that showed in an increase in currency in circulation. The discounting episodes in the second half of the year resulted mainly due to the over-bidding by banks in auctions (this is discussed in detail in the next section).

[15] A fixed schedule, previously in vogue, implied a concentration of OMOs on Thursdays (OMO was conducted every alternate Thursday) and a limit on frequency. However, in rare circumstances special OMOs could be conducted on days other than Thursday.

Figure 5.15: Discounting and Overnight Rates

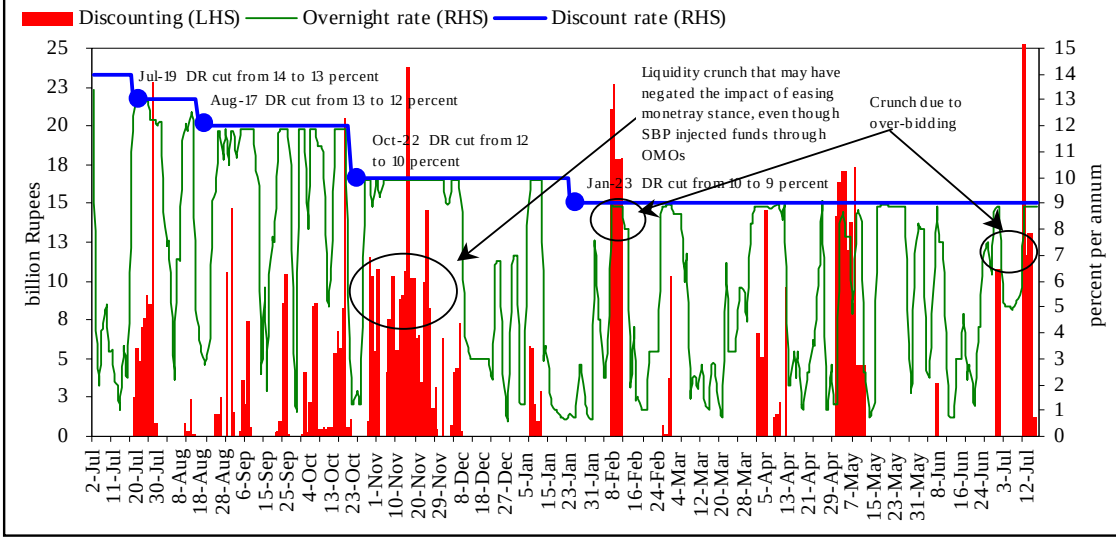


Table 5.9: Activities at Discount Window

billion Rupees

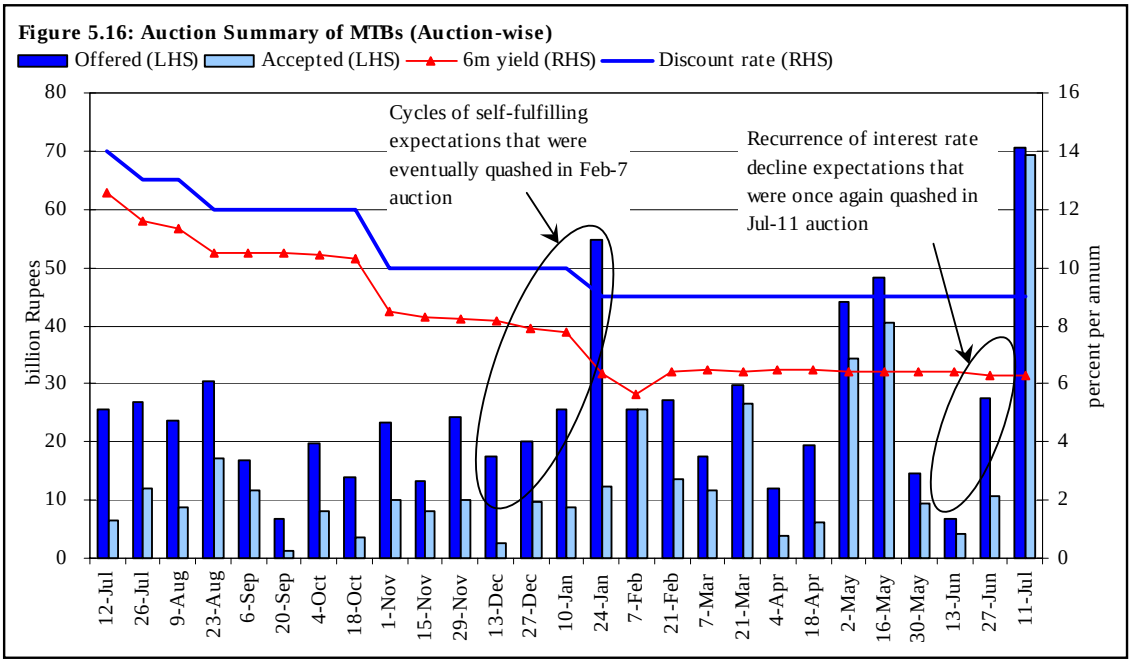
	Visits to discount window (Number of days)			Total amount of discounting			Average per visit		
	FY00	**FY01**	**FY02**	**FY00**	**FY01**	**FY02**	**FY00**	**FY01**	**FY02**
July	15	3	11	33.6	29.8	75.2	2.2	9.9	6.8
August	8	8	12	28.2	44.0	38.9	3.5	5.5	3.2
September	3	9	16	7.8	64.9	47.4	2.6	7.2	3.0
October	13	28	25	29.5	438.2	107.4	2.3	15.6	4.3
November	2	30	26	28.2	282.7	211.5	14.1	9.4	8.1
December	12	22	6	62.3	138.9	17.3	5.2	6.3	2.9
January	10	19	5	106.9	309.4	17.4	10.7	16.3	3.5
February	4	8	8	12.7	16.2	102.0	3.2	2.0	12.7
March	14	9	1	42.6	33.9	10.4	3.0	3.8	10.4
April	4	19	8	19.1	114.1	45.8	4.8	6.0	5.7
May	10	11	11	49.2	41.1	130.4	4.9	3.7	11.9
June	30	8	3	317.7	43.5	24.97	10.6	5.4	8.3
Annual	**125**	**174**	**132**	**737.6**	**1,556.7**	**828.4**	**5.9**	**8.9**	**6.3**

Source: Exchange and Debt Management Department, SBP

Comparing FY02 with the previous year, the amount of discounting and number of visits were visibly lower (see **Table 5.9**). More specifically, banks discounted Rs 828.4 billion worth of government securities against Rs 1,556.7 billion last year. The liquidity comfort this year represents the injections from improvements in NFA, and the rising deposits of banks; whereas the crunch faced in the last year was a reflection of the effective use of money market to ease off pressures on the foreign exchange market.

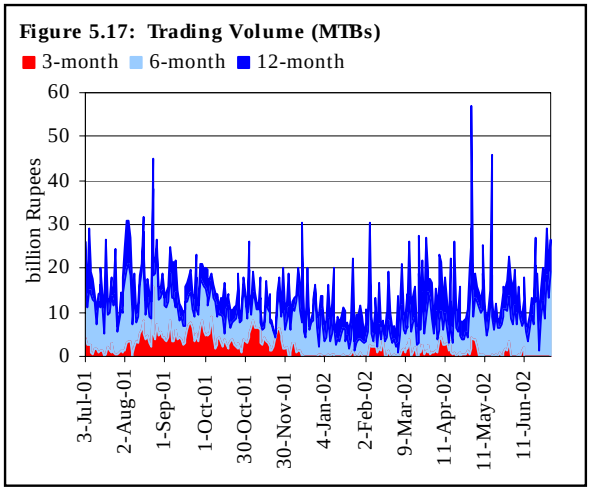
5.10.3 Treasury Bill Auctions

Figure 5.16 reveals a steady easing of monetary stance. In effect, the 6-month T-bill yield has declined from 12.5 percent at the end-June 2001 to 6.4 percent at the end-June 2002 (an all time low). In order to signal an easy monetary stance, the discount rate was cut on four occasions, i.e., one-percentage point in July, August and January respectively; and by two-percentage point in October.



In overall terms, banks offered Rs 565.9 billion compared with Rs 269.2 billion in the preceding year, of which SBP accepted 54.5 percent and 48.4 percent of the offered amount, respectively. An interesting observation here is that despite the declining interest rates the banks were offering heavy amounts while in FY01 rising interest rates failed to attract more funds.

This difference in FY02 was the result of: (1) ample liquidity in the banking system, (1) low net private sector credit demand (3) self-fulfilling expectations of banks regarding further decline in interest rate in coming auctions. By contrast, in FY01, rising interest rates had failed to attract more funds due to severe liquidity problems that imply; (1) a lack of funds, (2) profitable investment opportunities in short-term repo market, and (3) banks' expectation of a further liquidity squeeze, especially at respective quarter ends.[16]



It is also interesting to note that secondary market activity (see **Figure 5.17**) in T-bills suggests that market *expectations* of a decline in interest rates took greater hold during the latter half of the fiscal year. This is evident in a sharp drop in activity in the shorter tenors, and the rise in activity in the longer tenor T-bill. This is also mirrored in the T-bill auction data (see **Table 5.10**).

Occurrence of multiple spikes in the graphs shows, (1) sudden shift in trading towards longer tenors (this is also visible in PIB secondary market data, see **Figure 5.20**) reflecting a higher degree of volatility and uncertainty amongst market players regarding interest rate expectations, and (2) a

[16] For a detailed discussion see SBP *Annual Report* for FY01.

greater degree of interest in longer-term securities, one can easily identify periods where activity in 3-month is negligible.

The analysis of individual auctions is also quite revealing. In first eight auctions the market behavior was consistent with SBP view of interest rates as the rates declined only after the discount rate cuts and remained stable otherwise (see **Figure 5.16**). In next five auctions, between third and fourth discount rate cut, the banks offered heavy amounts at cheaper rates in anticipation of a further easing of monetary policy. This expectation is evident from the term repo rates, the tenor-wise break-up of banks' offers in T-bill auctions, as well as secondary market trading volumes.

Table 5.10: Trading Volume (Face Value) - FY02

billion Rupees

	3-month	6-month	12-month
Q1	269.3	747.2	330.3
Q2	205.7	547.6	226.2
Q3	55.0	351.3	374.6
Q4	63.5	653.6	479.8
Annual	**593.5**	**2,299.7**	**1,410.9**
H1	475.0	1,294.8	556.5
H2	118.5	1,004.9	854.4
Change (percent)	-75.1	-22.4	53.5

Figure 5.18: Composition of Amount Offered (Auctions)

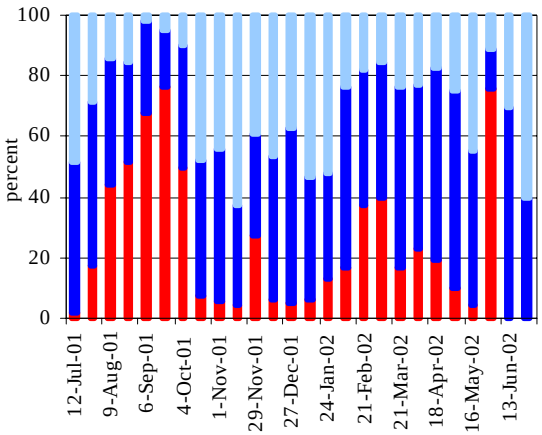
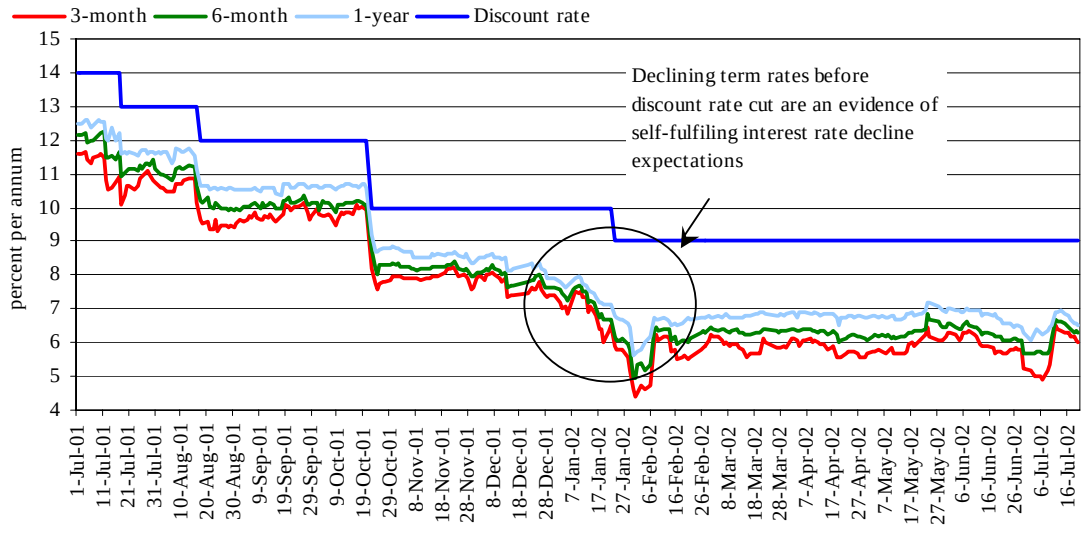


Figure 5.19 shows the daily trends in term repo rates, which clearly depicts the declining trend in these rates much before the discount rate cut. Furthermore, one can easily see the rates crashed before the February 7, 2002 auction. To further reinforce our view of these self-fulfilling expectations, the break-up of funds offered in different tenors and secondary market trading in different instruments shows a higher interest in longer tenors during the period when these expectations were prevailing in the market (see **Figure 5.17** and **5.18**).

As discussed in the SBP Third *Quarterly Report* for FY02, these expectations were eventually quashed in February 7, 2002

Figure 5.19: Term Repo Market Interest Rates



auction. Afterwards, in all remaining auctions (except the last auction) the T-bill rate remained stagnant closely aligned with SBP's view of interest rates. However, the budget speech in mid-June, 2001 re-ignited banks' expectations of another round of rate cut as evident in the last auction of FY02.

5.10.4 Pakistan Investment Bonds

In aggregate, the government mobilized Rs 77.1 billion in 11 regular PIB auctions and a further Rs 30.5 billion through special PIB sales during FY02, against an aggregate target of 83.0 billion (see **Table 5.11**).[17] In particular, the ten-year bond stands out as a clear success with mobilizations greater than the combined receipts of the other two tenors.

The role of PDs in development of a robust secondary market for PIBs, however, is still a matter of concern.

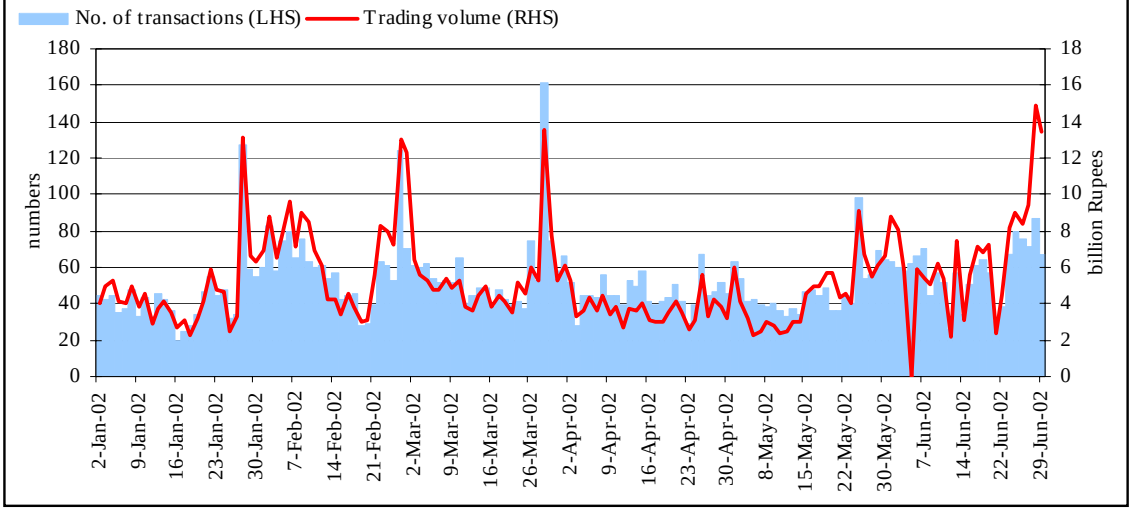
Firstly, so far, the PDs have failed to judge the extent of market demand, which is reflected in over-subscription in most of the auctions through out the year. SBP, on its part, has adhered to auction targets, which is clearly reflected in the target to acceptance ratio of 93 percent.

Secondly, the PDs have failed to quote two way pricing that is essential for market making.

Thirdly, anecdotal evidence suggests that, apart from allowed short-selling of 5 percent, pass-through bids are also excessively used, thus implying a reluctance on part of PDs to take PIBs on their books. This is supported by the higher than average trading evident on PIB auction settlement dates, especially in the case of 3 and 5-year bonds (see **Figure 5.20**).

Another problem for the long-term market, as already discussed in SBP *Quarterly Reports*, is that most institutional investors appear to lack proper professional skill and infrastructure to gauge market sentiments. This makes it difficult for institutional investors to quote appropriate prices. The PDs responsibility, here, is two-pronged, as they have to: (1) act as "market makers" and (2) help their clients make intelligent investment decisions. The SBP is therefore looking to improve the PD system to strengthen PIB primary and secondary market.[18]

Figure 5.20: PIB Secondary Market Trading



[17] Special sales include issuance of PIBs against tax refunds of banks, amounting to Rs 21.8 billion and the sale against the remaining short-selling amount.

The secondary market activity of PIBs reveals an increase in activity in periods when the interest rate decline expectations were prevalent in the market. A few spikes are also visible on auction dates, especially for 3 and 5 year bonds, this is presumably due to pass through bids and/or short selling (see **Figure 5.20)**.

Figure 5.21: PIB Holdings to Demand & Time Liabilities Ratio

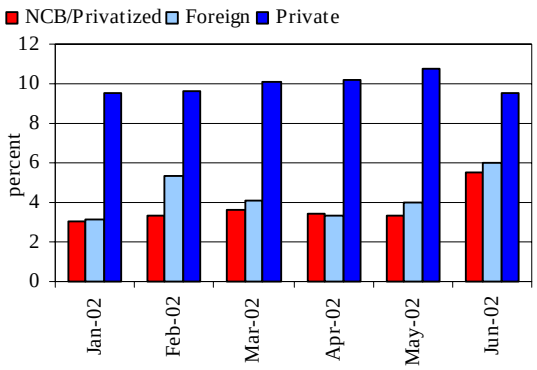


Figure 5.21 depicts excessive interest of banks, especially the private banks in holding PIBs in relation to their respective demand and time liabilities (DTL). As discussed in the SBP *Third Quarterly* Report, FY02 banks' holdings of PIB are still greater than non-bank holdings. Although it is not a desirable development, the excessive interest is understandable in a scenario of declining interest rates.

[18] The solution to these problems may lie in exercising the stripping of PIB coupons and/or issuance of a 'Jumbo Issue'.

Table 5.11: PIB Auctions (Summary of Results) - FY02

billion Rupees

Auction	Tenor	Target	Coupon (percent)	Amount offered	Range of price offered/Rs 100	Amount accepted	Weighted Avg. percent p.a.	Percent accepted
	3 Years		12.5	4.8	99.50--100.10	2.4	12.5	80.5
7th	5 Years		13.0	2.0	100.00--100.10	0.6	13.0	19.5
Jul 21, 01	10 Years		-	-	-	-	-	-
	Total	**3**	**0.0**	**6.8**	**-**	**3.0**	-	**100.0**
	3 Years		-	-	-	-	-	-
8th	5 Years		-	-	-	-	-	-
Aug 16, 01	10 Years		14.0	28.2	100.00--100.24	-	-	-
	Total	**10**	**0.0**	**28.2**	**-**	**0.0**	**0.0**	**0.0**
	3 Years		-	-	-	-	-	-
9th	5 Years		-	-	-	-	-	-
Aug 22, 01	10 Years		13.0	8.0	99.60--100.15	6.7	13.0	100.0
	Total	**10**	**0.0**	**8.0**	**-**	**6.7**	**-**	**-**
	3 Years		11.8	3.4	99.95--100.05	3.4	11.8	59.5
10th	5 Years		12.2	2.8	99.63--100.05	2.3	12.2	40.5
Sep 22, 01	10 Years		-	-	-	-	-	-
	Total	**8**	**0.0**	**6.3**	**-**	**5.8**	**0.0**	**100.0**
	3 Years		0.0	0.0	-	0.0	0.0	0.0
11th	5 Years		0.0	0.0	-	0.0	0.0	0.0
Oct 30, 01	10 Years		13.0	22.3	100.00--104.37	11.9	12.5	100.0
	Total	**12**	**0.0**	**22.3**	**-**	**11.9**	**0.0**	**100.0**
	3 Years		10.5	3.7	100.10--99.51	2.2	10.5	44.1
12th	5 Years		11.0	4.0	100.10--99.50	2.8	11.0	55.9
Nov 22, 01	10 Years		0.0	-	-	-	-	-
	Total	**5**	**0.0**	**7.7**	**-**	**5.0**	**0.0**	**100.0**
	3 Years		-	-	-	-	-	-
13th	5 Years		-	-	-	-	-	-
Dec 24, 01	10 Years		12.0	26.5	100.80--90.90	10.4	11.9	100.0
	Total	**10**	**0.0**	**26.5**	**-**	**10.4**	**0.0**	**100.0**
	3 Years		10.5	17.5	100.6--103.9	4.7	9.2	60.3
14th	5 Years		11.0	17.7	100.1--103.9	3.1	10.1	39.7
Jan 28, 02	10 Years		0.0	0.0	-	0.0	0.0	0.0
	Total	**8**	**0.0**	**35.2**	**-**	**7.8**	**0.0**	**100.0**
	3 Years		0.0	0.0	-	0.0	0.0	0.0
15th	5 Years		0.0	0.0	-	0.0	0.0	0.0
Feb 28, 02	10 Years		11.0	26.1	99.4--103.5	7.7	10.5	0.0
	Total	**8**	**0.0**	**26.1**	**-**	**7.7**	**0.0**	**0.0**
	3 Years		9.0	7.0	100.0--102.2	2.6	8.4	33.3
16th	5 Years		10.0	9.9	99.95--103.0	5.2	9.4	66.7
Mar 28, 02	10 Years		-	-	-	-	-	-
	Total	**8**	**0.0**	**16.9**	**-**	**7.8**	**-**	**100.0**
	3 Years		0.0	0.0	-	0.0	0.0	0.0
17th	5 Years		0.0	0.0	-	0.0	0.0	0.0
Apr 25, 02	10 Years		11.0	8.7	100.0--100.15	3.0	10.5	0.0
	Total	**3**	**0.0**	**8.7**	**-**	**3.0**	**0.0**	**0.0**
	3 Years		9.0	2.3	100.0--101.5	1.3	8.8	43.9
18th	5 Years		10.0	2.8	99.90--102.0	1.7	9.8	56.1
May 24, 02	10 Years		-	-	-	-	-	-
	Total	**3**	**0.0**	**5.2**	**-**	**3.0**	**-**	**100.0**
	3 Years		0.0	0.0	-	0.0	0.0	0.0
19th	5 Years		0.0	0.0	-	0.0	0.0	0.0
June 18, 02	10 Years		11.0	11.6	99.4--103.5	4.9	10.9	0.0
	Total	**5**	**0.0**	**11.6**	**-**	**4.9**	**0.0**	**0.0**
Grand Total		**93**		**209.4**		**77.1**		

Source: Exchange and Debt Management Department, SBP