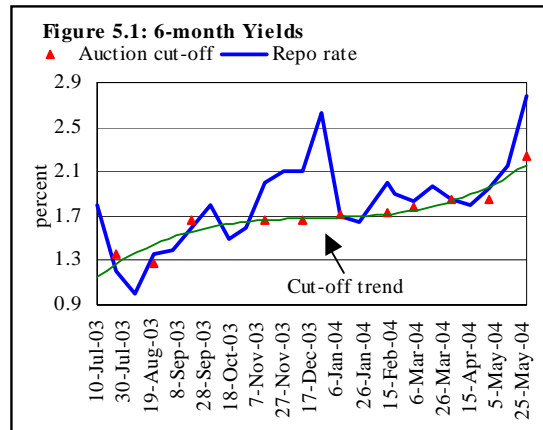
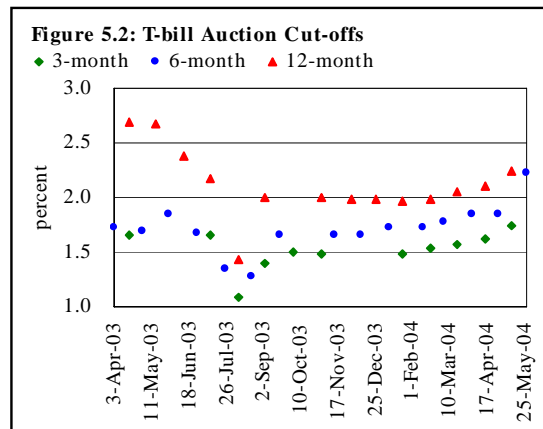


## 5 Money Market

After the reversal of the December 2003 upsurge in short-term rates, the market entered a period of relative stability. While it continued to expect a modest increase in demand for government borrowing, it was also concerned about a number of related issues. These included the steady increase in domestic inflation, the rise in international interest rates and the narrowing current account surplus, the SBP had successfully contained the expectations of a sharp rise in interest rates by allowing only a very gradual increase in T-bill cut-offs (see **Figure 5.1**).



As evident in **Figure 5.2**, short-term rates only saw a modest increase during Q3-FY03. However, as in Q2-FY03, market expectations were jolted by the April 2004 announcement of an unexpectedly large PIB auction. This, together with an unseasonal acceleration in inflation, as well as an incremental narrowing of the current account<sup>1</sup> revived expectations of a large movement in interest rates. Accordingly, term rates climbed strongly April 2004 onwards.<sup>2</sup>



<sup>1</sup> This owed to both a jump in imports as well as the termination of the Saudi Oil Facility (highlighted in the April 2004 release of the end-March 2004 balance of payments data). The latter, in particular, implied a dual negative impact: the lower external account surplus suggested a decline in rupee injections due to lower SBP forex purchases, while simultaneously increasing the government's reliance on domestic funding to finance the fiscal deficit.

<sup>2</sup> By end-May 2004, the rise was due to factors related to the PARCO swap transaction (this floating rate borrowing was linked to the average market prior to the transaction date).

**Box 5.1: Karachi Interbank Offered Rate (KIBOR)**

KIBOR is defined as the average rate (ask side), for the relevant tenor, as published on the Reuters page *KIBOR* or as published by the Financial Markets Association of Pakistan in case the Reuters page is unavailable.

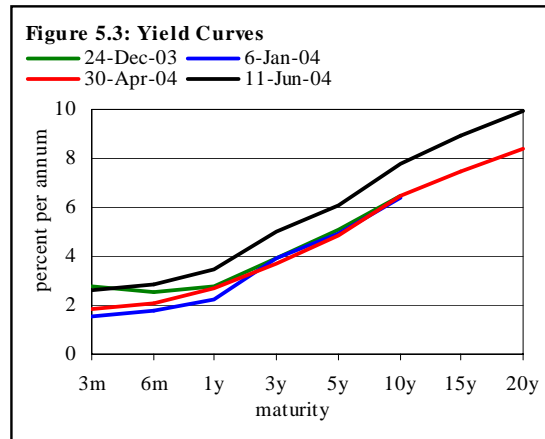
Initially, introduced in September 2001, KIBOR was only used as a reference rate for interbank money market (for clean lending). However, to promote the culture of floating rate lending and make the mechanism transparent both for lender as well as borrower, KIBOR was also introduced as a reference rate for corporate lending in February 2004.

Initially KIBOR of one-month; three-month and six-month tenors would be used as benchmark for all-corporate lending in the local currency. Subsequently, It was successfully extended to one year on March 31, 2004 and would be extended to three years by December 31, 2004.

KIBOR will not be applicable on (1) export finance scheme (2) consumer financing and SME lending (3) overdrafts and running finance facilities existing before January 31, 2004 (4) term finance certificates/ commercial papers approved by SECP or submitted to any stock exchange before January 31, 2004; and (5) all term loans with agreements executed before January 31, 2004. However, in case of re-pricing, KIBOR will be applicable in available tenors.

**5.1 Term Structure of Interest Rates**

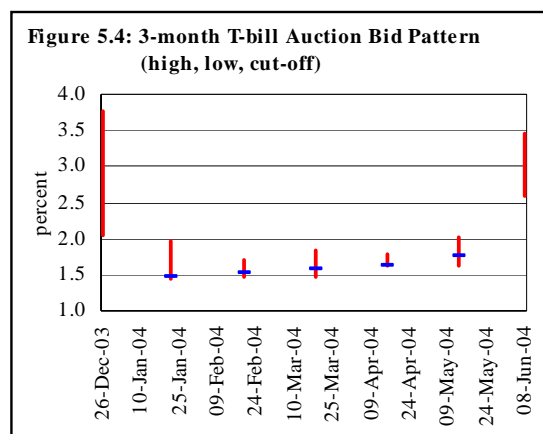
During Q3-FY03, there was little change in the longer end of the yield curve, other than its successful extension with the inaugural issue of 15- and 20-year Treasury bonds (PIBs) in January 2004 (see **Figure 5.3**). However, there were some movements in shorter tenors, in line with the developments discussed earlier. Initially, the yield curve pivoted down to become steeper following the post-December 2003 fall in short-term rates and thereafter flattened only slightly by April 2003 (largely mirroring the very gradual rise in the T-bill auction cut-offs).



The stability of the long-term rates owed, in part, to the lack of large PIB auctions during the period. This lowered pressure on PIB prices and complemented the SBP's policy of raising short-term rates only very gradually. However, the

market's interest rate outlook underwent a transformation with the unexpected large PIB issue announced in April 2004, which suggested a strong government appetite for borrowings. The resulting expectation of a sharper rise in the interest rates was then reinforced by relatively larger upward shift of the acceptance cut-offs in the next two T-bill auctions (as inflationary concerns grew).

The scale of the shift in market expectations by mid-May 2004 is evident from changes in the profile of the bids in T-bill auctions. For example, in the 3-month T-bill auction for June 9, 2004, the lowest bid was substantially above the highest bid of the previous auction (see **Figure 5.4**). These developments clearly highlight the importance of a greater coordination between the SBP (that sets targets for T-bills auctions) and the Finance Ministry (which sets targets for PIBs), in managing the interest rate expectations in the economy. This becomes even more important in the case of Pakistan given that during FY04 (to date), net government market borrowings through PIBs have been significantly higher than through T-bills.



**Table 5.1: Secondary Market Trading**  
billion Rupees

	3m	6m	12m	PIB	Combined
<b>Q1-FY04</b>					
Total	22.0	256.1	776.9	760.2	1,815.2
Average	0.3	3.4	10.2	10.0	23.9
Max	3.0	34.9	39.8	18.1	64.4
<b>Q2-FY04</b>					
Total	20.8	216.7	989.8	1,151.9	2,379.1
Average	0.3	3.0	13.6	15.8	32.6
Max	3.5	8.1	28.1	52.7	52.7
<b>Q3-FY04</b>					
Total	69.7	248.6	766.2	1,031.9	2,116.4
Average	1.2	3.6	11.1	15.2	30.7
Max	9.2	52.9	21.8	26.8	81.4
<b>April 20004</b>					
Average	2.0	2.3	12.2	15.3	31.8

### 5.2 Trading Volumes<sup>3</sup>

As seen from **Table 5.1**, secondary market trading in government securities has averaged over Rs 30 billion in Q2 and Q3 of FY04, which is substantially higher than for the corresponding figures for FY03.

<sup>3</sup> Reported volumes are based on simple aggregation of SGLA movements.

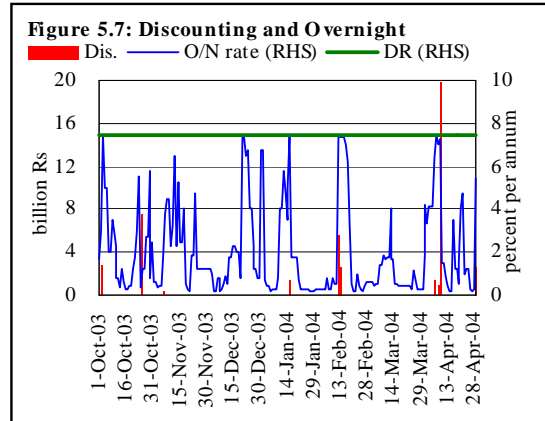
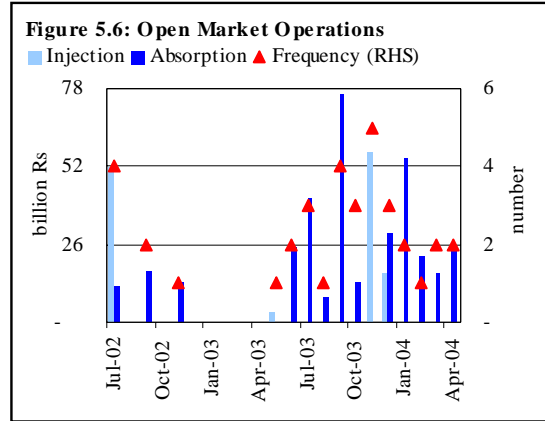
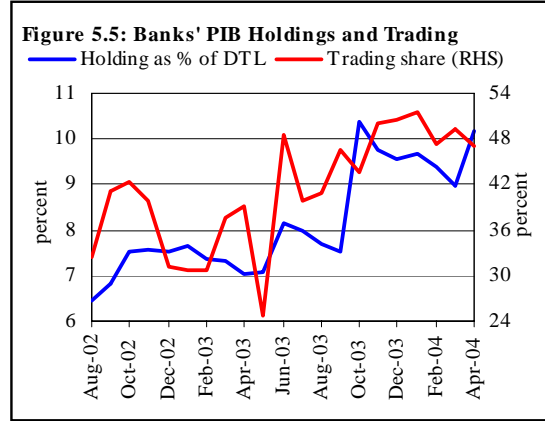
Another very significant development in recent quarters is the increased interbank trading in PIBs. As seen in **Figure 5.5**, the increased trading in PIBs appears to be co-related with the rise in outstanding stock of these instruments with the banking sector.

### 5.3 SBP Market Support and Rupee Interventions

As shown in **Figure 5.6**, the frequency and direction of OMOs during Jan-Apr 2004 was in sharp contrast to those in the corresponding period of FY03. In specific terms, there was no OMO Jan-Apr 2003 compared with seven OMOs during the corresponding period of the current year. These OMOs (Jan-Apr 2004) were geared to stem the excessive growth in monetary aggregates (M2 and reserve money).

As shown in **Figure 5.7** and **Table 5.2**, barring a few episodes of discounting, the market remained relatively more liquid during Jan-Apr 2004 as compared with Q2-FY04 and the corresponding period last year.

As reported in **Table 5.3**, the average level of overnight rates showed a decline of



**Table 5.2: Activities at Discount Window**  
billion Rupees

	No. of visits			Total discounting			Average per visit		
	FY02	FY03	FY04	FY02	FY03	FY04	FY02	FY03	FY04
<b>1st Quarter</b>	<b>39</b>	<b>16</b>	<b>-</b>	<b>161.5</b>	<b>144.1</b>	<b>-</b>	<b>4.1</b>	<b>9.0</b>	<b>-</b>
<b>2nd Quarter</b>	<b>57</b>	<b>32</b>	<b>3</b>	<b>336.2</b>	<b>325.3</b>	<b>10.9</b>	<b>5.9</b>	<b>10.2</b>	<b>3.6</b>
January	5	10	1	17.4	140.2	1.4	3.5	14.0	1.4
February	8	1	2	102.0	2.5	8.3	12.7	2.5	4.2
March	1	0	-	10.4	-	-	10.4	-	-
<b>3rd Quarter</b>	<b>14</b>	<b>11</b>	<b>3</b>	<b>129.7</b>	<b>142.7</b>	<b>9.7</b>	<b>9.3</b>	<b>13.0</b>	<b>3.2</b>

around 70 bps in Q3-FY04 compared with the last quarter, reflecting relative liquidity ease in the market. However, volatility increased despite more frequent market intervention by the SBP.

#### 5.4 Treasury-bill Auctions

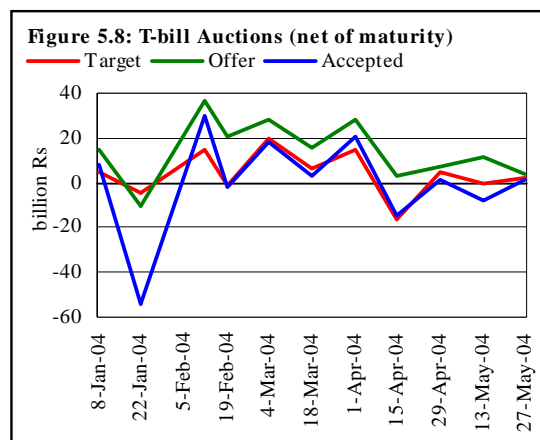
As shown in **Figure 5.8**, the targets set for T-bill auctions during January-April 2004 were typically higher than maturities. Moreover, other than a single auction (January 22, 2004) all attracted substantial interest and the amounts accepted were typically slightly higher than the amounts maturing, indicating the ample liquidity available with banks.

However, it is significant to note that for most auctions the acceptance cut-off lay towards the lower end of the bid-spread. In other words, despite the apparent liquidity, banks continued to demand a larger increase in yields than what the SBP was willing to offer.

The ability of banks to do so, in turn, depended on a number of factors, these included the low opportunity cost of uninvested funds (T-bill auction yields were

**Table 5.3: Volatility of Overnight Rates**  
percent

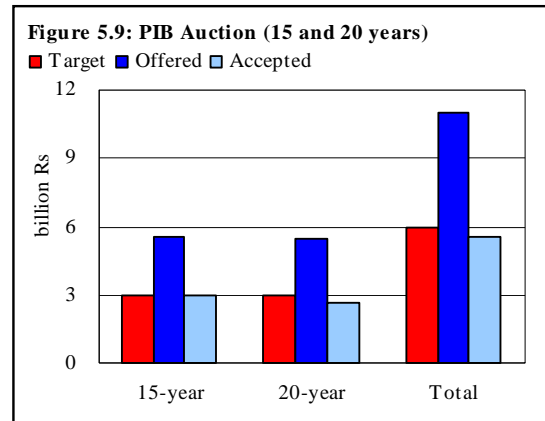
	Std Dev	Average	Coef. of Var
Oct-03	1.9	2.2	0.8
Nov-03	1.7	2.2	0.8
Dec-03	2.3	2.2	1.0
<b>Q2-FY04</b>	<b>2.0</b>	<b>2.2</b>	<b>0.9</b>
Jan-04	2.2	1.8	1.2
Feb-04	2.8	1.9	1.5
Mar-04	0.8	1.0	0.8
<b>Q3-FY04</b>	<b>2.1</b>	<b>1.5</b>	<b>1.4</b>
Apr-04	2.4	2.7	0.9



marginally higher than the average overnight rate), as well as the investment opportunities offered by large PIB issues.

### 5.5 Pakistan Investment Bond (PIB) Auctions

Contrary to initial market expectations, Q3-FY03 witnessed only one small (Rs 6 billion) PIB auction (marking the launch of the 15- and 20-year PIB). As shown in **Figure 5.9**, the January 2004 auction of 15- & 20-year bonds generated a lot of interest especially amongst non-bank institutions. The amount on offer was almost twice the announced target, and not surprisingly the acceptance cut-off was at a premium (see **Table 5.4**).



However, it was the announcement of a Rs 40 billion Jumbo issue, which was to be issued in two tranches (Rs 25 billion for April 2004 and the remainder in May 2004), which had a significant impact on market expectations. .

As seen in **Table 5.4**, the April 2004 offering (first tranche of the Jumbo issue) reflected the heavy market demand for long-term bonds. All tenors were over-

subscribed and the tenor-wise targets were met comfortably. Despite a slight decline in yields of 3- and 5-year bonds, the yield on the 10-year bond increased by 27 bps. Intuitively, it seems that this difference in the direction of change in the 10-year bond yield relative to

**Table 5.4: PIB Auction (15 & 20 years maturity)**

Auction held on January 19, 2004

	Acceptance (billion Rupees)		
	Non	Short selling	Total
15-year	0.1	0.3	3.3
20-year	0.2	0.4	3.2
Total	0.2	0.7	6.5
Interest rates (in percent)			
	Coupon	Cut-off	W. Average
15-year	9.0	7.8	7.7
20-year	10.0	8.8	8.7
Price (in Rupees)			
	Highest	Lowest	Range
15-year	112.7	105.0	7.7
20-year	113.6	105.2	8.4

Note: Totals may not tally due to separate rounding-off

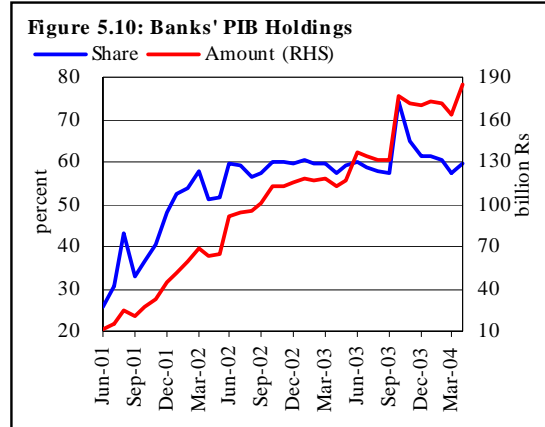
that other tenors is largely due to the significantly larger amounts offered in the longer tenor instrument.<sup>4</sup>

However, the May 2004 PIB auction (second tranche of the Jumbo issue) saw a more than 80 bps rise in PIB cut-off yields (see **Table 5.5**). This meant that the yield curve became steeper (as this rise was greater than the rise in cut-off yields in the earlier T-bill auction). This steepening yield curve, in turn, (1) put an upward pressure on short-term interest rates, and (2) intensified banks' interest in long-term government paper (ironically, this came precisely when the SBP was warning banks on the risks of very high PIB holdings).<sup>5</sup>

As shown in **Figure 5.10**, the share of commercial banks in the total stock of outstanding PIBs has declined in the period January-April 2004. It shows that during this period, fresh issues were largely purchased by non-bank institutions. While this development is quite welcome, the PIB holdings of

**Table 5.5: PIB Auction (3, 5 & 10 years maturity) auction held on April 29, 2004**

		3-year	5-year	10-year	Total
Target	billion Rupees	3.0	7.0	15.0	25.0
Offered	billion Rupees	7.7	15.7	23.7	47.1
Accepted	billion Rupees	3.0	8.3	15.0	26.3
Cut-off (price)	Rupees	106.3	109.2	111.0	-
Coupon	percent	6.0	7.0	8.0	-
Cut-off (yield)	percent	3.8	4.9	6.5	-
<b>auction held on May 29, 2004</b>					
Target	billion Rupees	2.0	3.0	10.0	15.0
Offered	billion Rupees	3.0	4.3	10.4	17.7
Accepted	billion Rupees	1.9	3.0	10.0	14.9
Cut-off (price)	Rupees	104.5	107.1	104.4	-
Coupon	percent	6.0	7.0	8.0	-
Cut-off (yield)	percent	4.4	5.4	7.4	-



<sup>4</sup> One interesting explanation conjectured for the higher supply in 10-year would tend to increase its yield and thereby lowering its differential with the DSC yields. This, in turn, would permit the government to avoid a (quite unpopular) large cut in NSS rates (which are issued at a small premium on PIB yields).

<sup>5</sup> As discussed earlier, this highlights the need for greater coordination between T-bill and PIB auctions, in terms of timing and size of issuances and their probable impact on interest rate movements.

banks remain uncomfortably high, given the potential for large capital losses in case of a significant upward shift in interest rates.