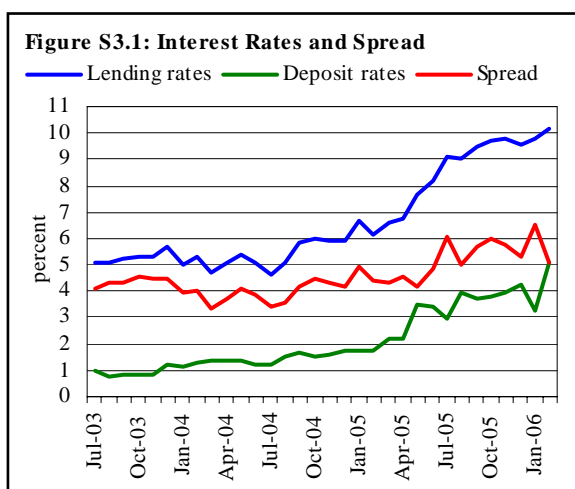


### Special Section 3

#### Interest Rates and Banking Spread

After remaining at historic low during FY03 and most of FY04, interest rates have been moving steadily upwards since the end of Q3-FY04. However, as the weighted average deposit rates were increasing at a relatively slower pace compared with the weighted average lending rates, the banking spread (measured as the difference between weighted average lending and



deposit rates) has been moving upwards throughout FY05 and FY06 (see **Figure S3.1**). This rise in spread is a source of concern for the policy makers since it is generally associated with deterioration in banking sector efficiency<sup>1</sup>.

Usually, the banks are impelled to raise the spread in order to maintain the profitability when the intermediation expenses increase. This said, gone are the days in Pakistan, when the significant provisioning against the non-performing loans and the unfavorable tax structure in

**Table S3.1: Earnings & Asset Quality Indicators**

percent	2001	2002	2003	2004	Jun-05	Sep-05
NPLs to loan	23.4	21.8	17	11.6	10.6	10.5
Net NPLs to loan	12.1	9.9	6.9	3.6	3.0	2.7
ROA (after tax)	-0.5	0.1	1.1	1.2	1.4	1.7
NII/gross income	70.4	67.1	60.5	64	71.1	71.7
Cost/income	62.4	59.1	49.1	51.6	48.2	43.8

banking system used to increase the operating expenses and banks had to raise the spread to remain profitable. However, in the recent years, both, the asset quality and the profitability of the banks have improved significantly (see **Table S3.1**), and therefore, the current rise in the banking spread is rather intriguing and calls for identifying the causative factors.

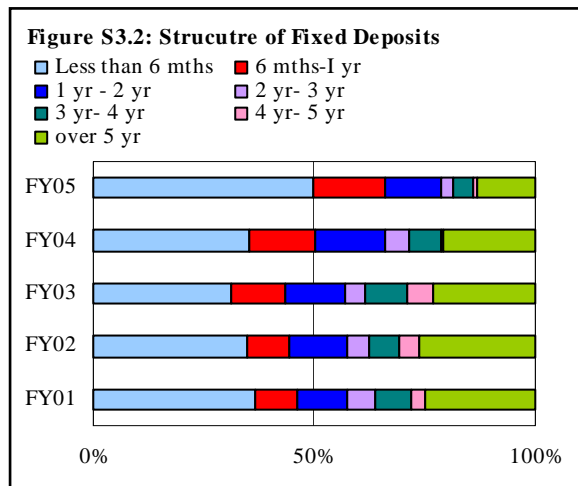
<sup>1</sup> However, it should be noted that in a market based mechanism, banks are allowed to determine the retail interest rates and the central bank does not direct banks for setting up a specific interest rate structure.

At the onset, it should be realized that the business of banking industry has undergone significant structural changes during the preceding three years. In particular, the nature of banks' lending and deposit taking activities has experienced a shift in terms of both, outreach and the diversification of banking services. New products have been introduced and a healthy competition among banking institutions has appeared that enabled customers to avail banking services at a more competitive rates. In this scenario, the dynamics of banking spread has also changed and therefore the rising spread may not necessarily be depicting the operating inefficiencies in the sector; rather it may be reflecting the shift in structure of deposits and advances portfolio.

**Maturity Profile of Deposits**

The structure of bank deposits, for instance, has changed significantly during FY05 compared with the preceding years. In particular, the maturity profile of bank deposits has shifted towards shorter tenure as the current and savings deposits registered a growth of 31.1 and 13.1 percent respectively during FY05<sup>2</sup>.

Although, fixed/term deposits also witnessed a growth of 39.8 percent during FY05; but the fixed deposits with the maturity within six months registered a growth of 96 percent. As a result, the share of short term deposits (maturity within six months) in total fixed deposits has increased from 35.4 percent at end FY04 to 49.7 percent at end FY05 (see **Figure S3.2**).

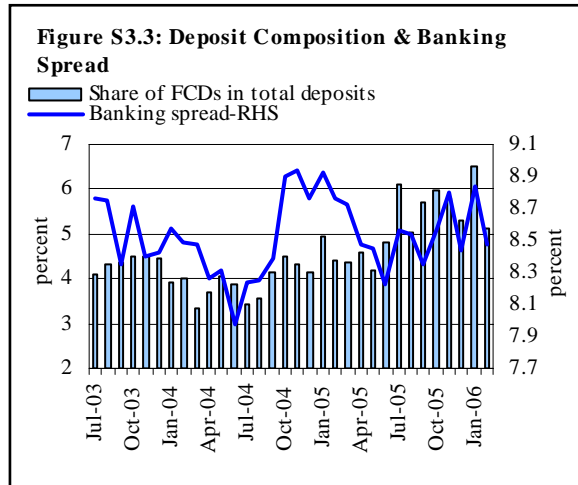


**Currency Profile of Deposits**

In addition to the deposit structure, the currency composition of deposit mobilization may also impact banking spread, since; the rate of return on deposits denominated in foreign currency (especially US dollar) is lower compared with those denominated in Rupee. **Figure S3.3** shows that the higher share of FCDs in total deposits tends to drag down the over all deposit rates.

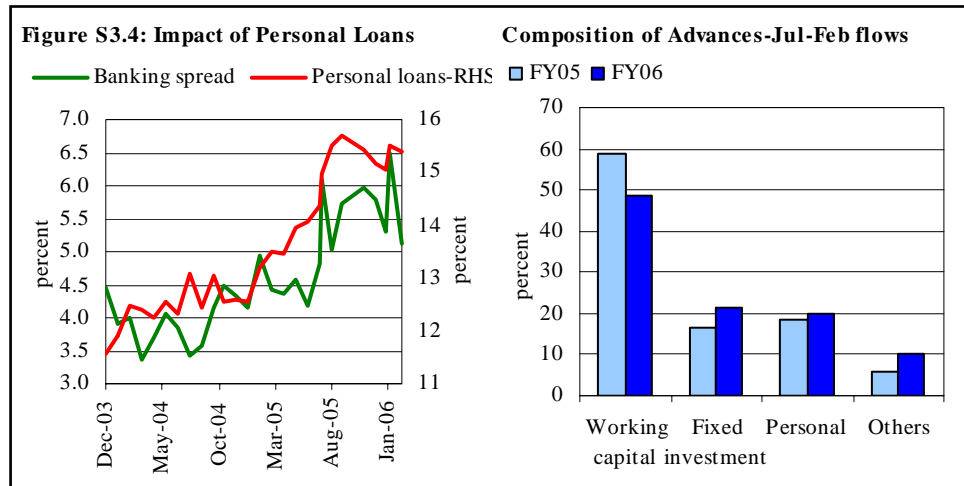
<sup>2</sup> This data has been taken from half-yearly accounts of banks. The data for end-December 2005 is not yet received

Although the divergence in the return offered on rupee deposit and foreign deposits is quite significant,<sup>3</sup> the share of FCDs in total deposits has gone down from almost 34 percent in April 1998 to mere 8 percent by end-February 2005. As such FCDs presently do not create a significant impact on the overall weighted average deposit rates and banking spread.



**Lending Profile**

The structure of loan portfolio of the banks has also witnessed significant changes since FY02 in terms of clientele and the nature of loans. In particular, banks have been lending to new sectors like consumer and SMEs that are relatively riskier in nature (and in some cases have relatively longer maturities) and thus yield higher returns. Furthermore, the credit to corporate sector also witnessed a shift in structure in the form of rising share of fixed investment loans with relatively longer maturity compared with the working capital loans. As shown in **Figure**

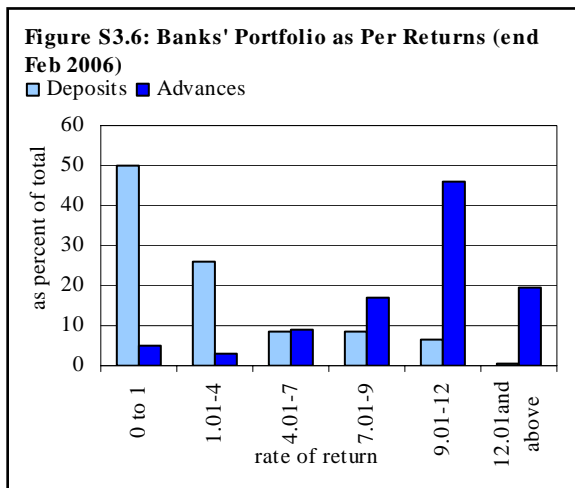
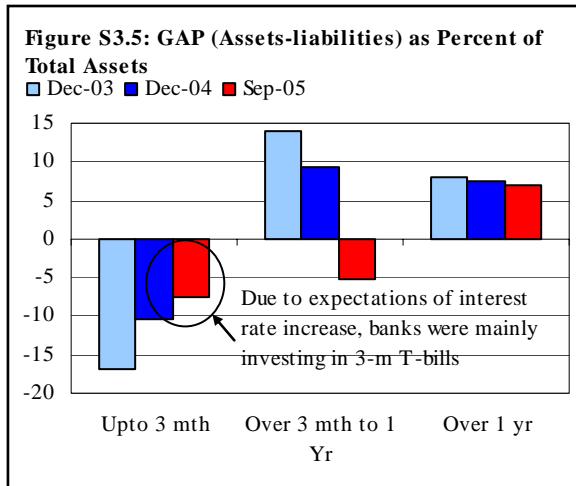


**S3.4**, the banking spread is moving in direction of the share of fixed investment loans in total advances and the share of consumer loans in total advances.

**Impact of Product Mix**

The new product mix with concentration of fresh deposits in shorter tenure and lending in longer tenure is also reflected in the banks' gap analysis (maturity gap is measured by the difference between assets and liabilities, adjusted by total assets). As shown in the **Figure S3.5**, the difference between assets and liabilities (as a percent of total assets) with maturity of over 3 months and between 3 months and a year is negative. Although, the gap has improved slightly for maturities up to 3 month (mainly due to banks' heavy investments in 3 month T-bills during Dec-04 to Sep-05); the gap for maturities between 3 month and a year has deteriorated significantly and has turned negative at end September 2005. In the longer-term basket, however, banks are operating with large positive gap as the assets of banks have longer maturities compared with their liabilities.

This contrast in the incremental advances and deposit profile has moved the distribution of returns in a



<sup>3</sup> As of end- Feb the weighted average returns on foreign currency deposits was 1.62 percent against 5.35 percent offered on the rupee deposits.

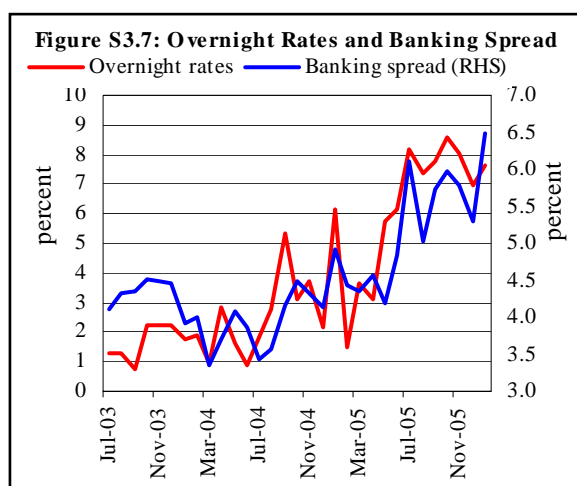
direction that is favorable to banking sector profitability<sup>4</sup>.

As shown in **Figure S3.6**, at end December 2005, 50.9 percent of the total bank deposits were placed at rate between 0 to 1 percent followed by 27.8 percent deposits placed at the rate between 1 to 4 percent. On the other hand, 44.5 percent of total bank advances were placed at the rate between 9 to 12 percent. This distribution of returns against deposits and advances is itself an indication of higher spread.

### **Impact of Inter-bank Lending**

Another important determinant of the movements in banking spread has been the impact of the cost of interbank lending. Specifically, during July 2003, the interbank lending and deposit rates were also included in the weighted average lending and deposit rates. Further, it should be noted that throughout FY04 and most of FY05, the interbank money market remained fairly liquid as a result of which overnight lending rates were providing a downward stimulus to the banking spread<sup>5</sup> (see **Figure S3.7**).

Contrarily, during the ending months of FY05 and throughout FY06, SBP has kept the inter bank market quite short of liquid. In addition, during April 2005, the discount rate was also increased from 7.5 to 9.0 percent and hence, the overnight lending rates were providing an upward stimulus to the banking spread. This can be seen from the fact that since July 2003, there has been a correlation of 0.84 in the movements of incremental spread and the overnight rates.



### **Price Rigidities in Deposit Rates**

The above discussion fairly explains that the recent rise in banking spread is reflective of its structure and the change in the product mix of the banking

<sup>4</sup> Although the difference in the nature of incremental advances and deposits is a serious question mark on the maturity and liquidity risk that the banks are undertaking.

<sup>5</sup> The volume of interbank lending is quite substantial compared to the volume of interbank deposit.

industry. However, it is important to mention here that in a changing interest rate scenario, the interpretation of the trend in banking spread becomes all more complicated given the price rigidities in the banking products.

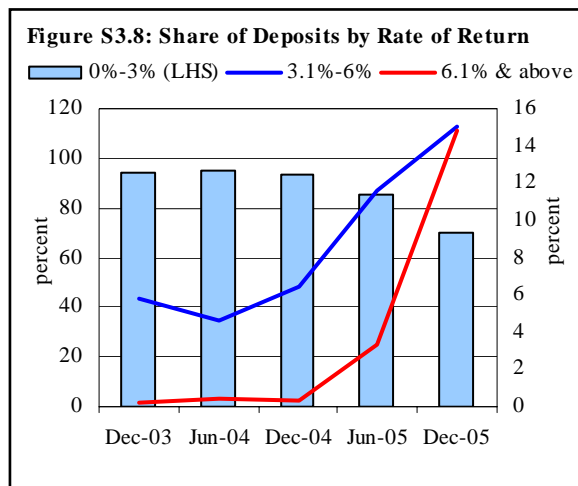
In particular, the rigidities in the retail deposit rates have been amply discussed in the economic literature (see **Box S3**). For instance, the findings of Hannan and Berger (1991) are that the deposit rates are significantly more rigid when the stimulus for a change is upward, rather than downward. In addition, there are a number of studies explaining the trend and pace of change in interest rates as a function of the market concentration and interest elasticity of deposit and advances (Neumark and Sharpe 1992). Similarly, there are findings that the spread tends to widen when interest rates rise and narrow when interest rates fall (Hutchison 1995). Here it is essential to recall that when in Pakistan the benchmark interest rates were falling, i.e., during FY03 and FY04, the banking spread was squeezing as the fall in lending rates was sharper compared with the fall in deposit rates<sup>6</sup>.

**Conclusion**

In sum, the dynamics of banking spread has changed overtime and therefore the trend in banking spread should be seen in perspective of the changes in product mix of the banks in terms of maturity and risk profile, the structure of banking industry, monetary policy transmission mechanism, monetary and overall macroeconomic

developments and other bank specific factors. With the stable banking soundness indicators related to earnings, asset quality and managerial efficiencies, and given the structural changes in the composition of lending and deposit rates, it may be too early to warrant an immediate policy response.<sup>7</sup>

Nonetheless, if the widening persists, then it will raise a serious concern because the continuous widening spread



<sup>6</sup> For details, please see **SBP Annual Report for FY03**.

<sup>7</sup> Rather, banks have to focus more on the liquidity coverage, especially asset based, in the shorter tenure as the maturity profile of liabilities has been shortened.

can have a dampening effect on economic growth as a continuous high spread discourages both investments and savings.

Going forward, it is expected that the completion of monetary transition and the pass through on lending and deposit rates would help banks in narrowing the spread somewhat. It is also likely that banks, with an aim to lower the maturity mismatch and the resultant liquidity risk, will focus on mobilizing longer tenure deposits in months to come. In this regard, the latest data on distribution of deposits by rate of return is quite encouraging as it shows that banks have already started making efforts to mobilize the deposits at higher returns and the share of deposits with higher rate of returns (more than 6 percent) has increased tremendously during Jun-05 and Dec-05 (see **Figure S3.8**).

**Box S3: Theoretical Explanation of Rigidity in Pricing Deposits and the Case of Pakistan**

A number of theories have been presented to explain the existence of price rigidity in the banking sector. The structure of the banking industry has mostly been explained as one of the determinants of rigidity in deposit rates;

- (1) The structure performance hypothesis suggests that high institutional concentration in the banking industry leads to non-competitive pricing which results in low deposit rates.
- (2) Even in the presence of competitive pricing, it is not necessary, that the deposit rates are adjusted with every single change in policy rate or the improvements in profitability. For banks it is costly to make rapid adjustments in deposit rates given the non-trivial menu costs; and the depositor may also find it costly to shift funds from one bank to another.
- (3) The existence of collusive arrangements in the banking industry where banks mutually decide to keep deposit rates low.
- (4) Incomplete information regarding the returns offered by various banks also impedes the depositors' decision to switch banks.

The banking industry in Pakistan in the pre-reform structure was although characterized by a high level of concentration in a few banks; however, this hardly had any impact on the deposit rate structure since the SBP used to control the deposit rates till 1985. From 1<sup>st</sup> July 1985 onwards, banks were disallowed to mobilize interest based deposits as a result of the measures to transform the conventional banking system to a non-interest based system. However, banks were required to obtain prior clearance from SBP for declaring profit rates under PLS system (profit and loss sharing). During 1988-92, although, the returns on deposits were based on PLS system, still the interest rate restrictions were at place in the form of floors on deposit rates.

With the liberalization process of the banking industry, banks were allowed to set the rate of return on deposits and all the earlier restrictions were dispensed with. At present, banks announce half yearly the rate of return on deposits based on the PLS system. However, it should be noted that although the profitability of banks has increased manifold in preceding three years; still the returns on deposit show no sign of improvement. This is reflective of the fact that there exist price rigidities in the domestic banking industry arising out of (1) incomplete information; and (2) the absence of competition.

Specifically, local depositors do not have a complete access to the information regarding the returns offered by banks under various schemes as no network system is at place where banks upload such information. Similarly, banks do not have to offer highly competitive prices given the absence of alternative modes of savings especially for institutional investors. This is because; (1) during March 2000, the institutional investors were disallowed to invest in National Savings Schemes-NSS instruments effective from March 2000; and (2) the decline in secondary market activities in PIBs given the low supply as banks have shifted most of the available stock to the 'held to maturity' category and there were no new PIB issuances since June 2004.



However, it should be noted that in the preceding three years, banks have been enjoying a robust deposit growth given a sharp rise in workers' remittances, decline in the profit rates on NSS instruments and the overall increase in economic activity in the economy. With the introduction of two new NSS instruments with a relatively higher profit rates, the additional liquidity that the banks were enjoying has been constrained somewhat. This can be reflected in a substantial decline in net outflows from these schemes during H1-FY06 and the highest gross mobilization in last six years. If this trend persists, then banks will have to raise the deposit rates significantly to compete with the NSS instruments, especially to fund the extended maturity of bank advances.

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- (3) Neumark David and Sharpe S. Steven, Market Structure and the Nature of Price Rigidity: evidence from the market for customer deposits, *Quarterly Journal of Economics* (1992).