

During the half year under review, asset base of the banking system witnessed strongest growth since 2007 amid robust increase in investments, predominantly in government papers. Deposits were up by Rs. 515 billion, the most significant half yearly rise in the last four years, thanks to the stellar inflow of workers' remittances. Banking system remained the main conduit for financing the fiscal deficit, particularly commercial banks as government shifted its borrowings away from State Bank. Accordingly, share of net investments in banks' assets further inched up to 34 percent, with share of net advances sliding down to 43.9 percent. Private sector credit remained anemic (rather negative if only domestic banking operations are taken), though half yearly numbers conceal the inter-quarter borrowings. These trends pushed the ADR further down to 56.7 percent, reducing banks' optimal role as financial intermediaries.

Figure 1.1

Changes in Banking Assets

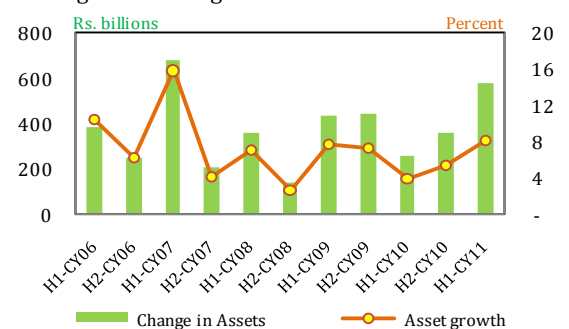
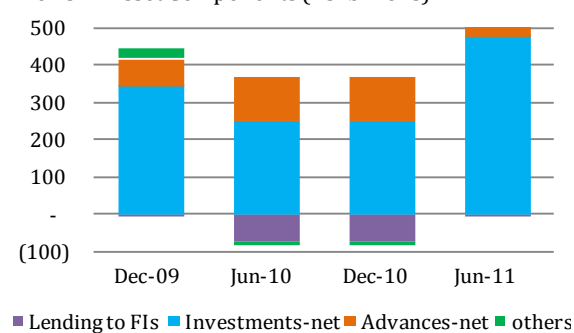


Figure 1.2

Flows in Asset Components (Rs. billions)



Banking assets exhibit strongest half yearly growth since 2007....

The period under review (H1-CY11) witnessed a rise of Rs. 577 billion in banking assets, posting an impressive growth of 8 percent. This was the most significant half-yearly surge in assets, both in absolute and growth terms, since 2007 (Figure 1.1). Growth in assets was primarily led by robust growth in investments while advances managed a remotely distant second (Figure 1.2). While surge in investments in recent years have been undoubtedly stronger, growth in advances have not been as insipid as it appears in Figure 1.2. It is primarily the half yearly data that conceals a significant part of the seasonal nature of advances. A more granular analysis of disbursements suggests that some of the loans availed during the half year were also repaid, thus making the June-end figures appear more dismal than has actually been the case.

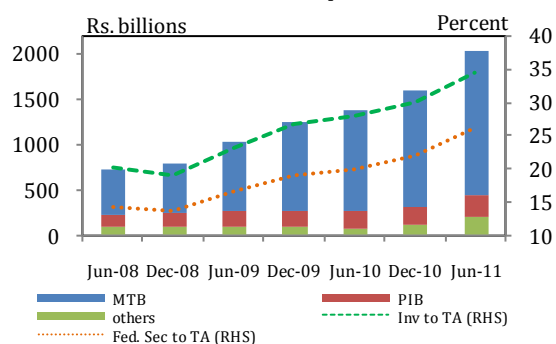
...as the banking system continue to finance fiscal deficit

Government's dependence on banks have remained strong, amid abysmal tax collection (tax to GDP ratio of 9.4 percent) and steadily diminishing contribution of the external funds in deficit financing (9 percent in FY11 compared to above 50 percent in during FY01-07). Unsurprisingly, investment portfolio of the banking system increased by 22.3 percent (Rs. 478 billion) during H1-CY11, with a major portion of this rise (90.6 percent) placed into government papers including T-bills and PIBs.

Strong borrowing needs of the government in the last few years have significantly increased banks' exposure to government papers. In fact, the amount of investments (net of provisions) has more than doubled from Rs 1.08 trillion in Dec-08 to Rs 2.62 trillion in June-11. The share of net investments

Figure 1.3

Banks' Investments in Govt. Papers



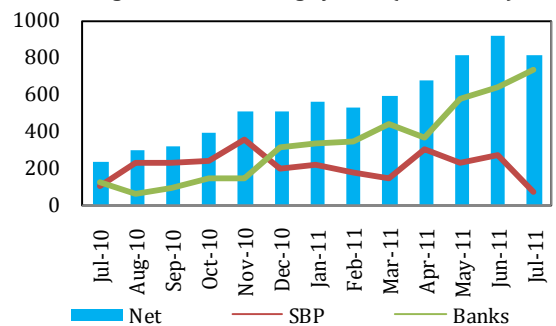
in banks' total assets has also increased from 19 percent to 34 percent during the same period (Figure 1.3). Consequently, the share of net advances has registered a concomitant drop, from 56.6 percent to 43.9 percent during the same period. Apart from traditional interest-bearing government securities, the half year under review have also witnessed 46.6 percent growth in investments by Islamic banking institutions, due to their net investment of Rs. 69.7 billion in two tranches of Government of Pakistan Ijarah Sukuk.

.....though government borrowings turn to relatively less-inflationary source

While it was primarily the SBP that financed bulk of the deficit in the first few months of FY11, the government started shifting its borrowings towards commercial banks from November, 2011 onwards. During H1-CY11, commercial banks took the lead in providing necessary funding to help meet the budgetary needs of the government (Figure 1.4). Thanks to this shift, budgetary borrowing from SBP turned negative during FY11 as government actually retired around Rs. 8 billion. It was a positive development as borrowing from SBP, being highly inflationary in nature, had serious implications for overall economic management.

Figure 1.4

Borrowing from the Banking System (Rs. billions)

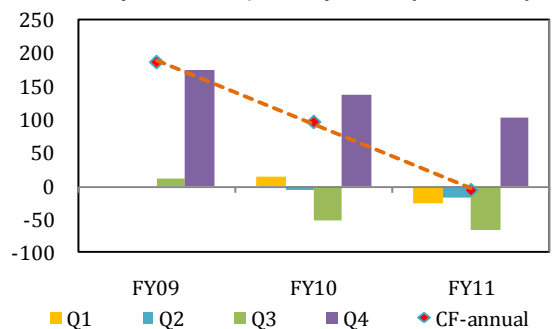


....and expensive commodity finance marks net retirement

Another positive development was net retirement of Rs. 5.2 billion in FY11 against commodity finance, compared to net disbursement of Rs. 96 billion in FY10. This drop was primarily on account of lower than targeted procurement of wheat, a commodity that typically takes three quarters of overall commodity financing. Given the expensive nature of commodity finance (KIBOR plus margin that have been as high as 2.75 percentage points during the last year), net retirement was helpful in reducing expensive part of the government borrowings (Figure 1.5). Similarly, lending to public sector enterprises (PSEs) also witnessed a net retirement during the period under review.

Figure 1.5

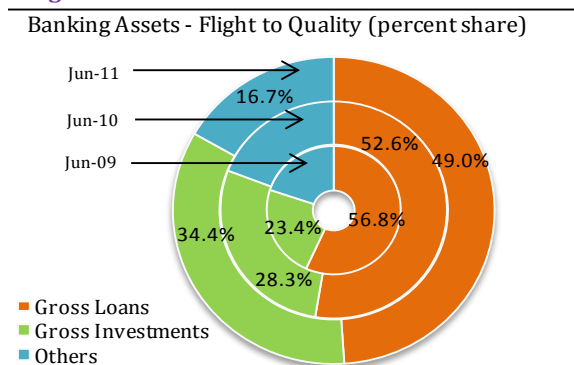
Commodity Finance - Quarterly Flows (Rs. billions)



Banks' flight to quality continues unabated

Since 2008, credit risk of the banking industry has significantly increased due to deterioration in macro-environment i.e. severe power shortages, poor law and order situation, inflationary pressures and global economic slowdown. Noticeable surge in delinquencies and loan losses have

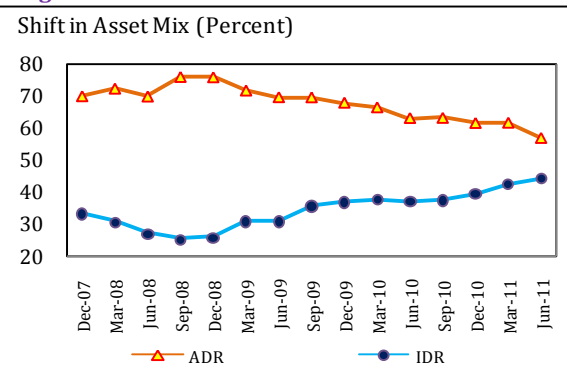
Figure 1.6



dampened banks’ risk appetite with a consequent fall in lending to private sector, except for higher quality borrowers or for seasonal credit. During the same time, burgeoning government borrowings amid growing fiscal slippage have also provided banks a continuous stream of lucrative risk-free securities, further augmenting their risk-averse lending behavior.

Consequently, there has been noticeable flight to quality in banks’ credit portfolios. For instance, investments predominantly in government papers has posted a strong growth of 22.3 percent, compared with 1.7 percent growth in lending to private sector during the half year under review. Accordingly, share of investments in total assets has consistently grown since CY08 with a concomitant fall in share of advances (Figure 1.6). Further, even within private sector credit, banks have continued to curtail the share of relatively risky areas like SMEs and consumer finance.

Figure 1.7



.....with ADR steadily falling

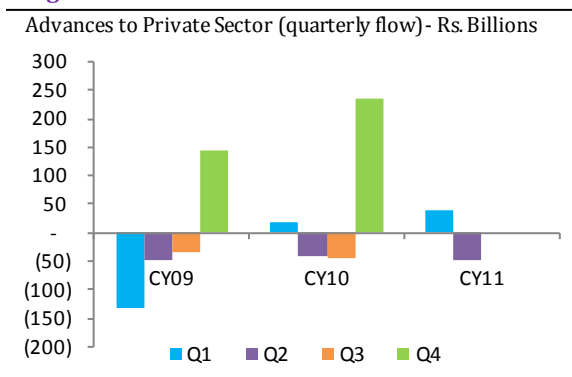
With rise in investments outpacing the growth in advances by a wide margin, it is hardly surprising that (ADR) of the banking system has been consistently declining over the last few years, highlighting their growing risk aversion. Understandably, investment to deposit ratio (IDR) exhibits a mirror image of the ADR, indicating the nature of shift in banking assets from advances to investments (Figure 1.7).

During the half year under review, ADR dropped from 61.4 to 56.7 percent amid government’s increasing reliance on commercial banks for deficit financing. While dropping ADR (and rising IDR) augurs well for banks liquidity as well as profitability profiles (as government has been borrowing on attractive rates), it exposes banks’ profits to any sharp cut in discount rates, apart from compromising their role as financial intermediaries.

Private credit off take remains anemic, particularly when viewed on half yearly basis

While overall advances were up by Rs. 35 billion during the half year under review, lending to private sector registered a net decline of Rs. 8.9 billion. While credit-off take has been apparently disappointing, it is not unusual for the first half of a given year. In fact, private sector credit declined far more significantly (Rs. 23.8 billion) during the same period last year

Figure 1.8



(H1-CY10). Because of the seasonal nature of borrowings by the private sector, growth in advances typically remains suppressed in the first half of a given year and 2011 was no exception (see Figure 1.10).

More importantly, subdued lending to private sector, when viewed on half yearly basis, can be explained by the fact that some industries retire their borrowings, particularly the ones taken as running finance, from one quarter to the next. So, half yearly data conceals the inter-quarter trends in lending that are dictated by seasonal nature of working capital needs. As *Figure 1.8* highlights, credit to private sector was positive in the first quarter of 2011 (and significantly better than Q1 of CY09 and CY10). But it turned negative on half yearly basis as firms retired their loans before June-2011.

Table 1.1

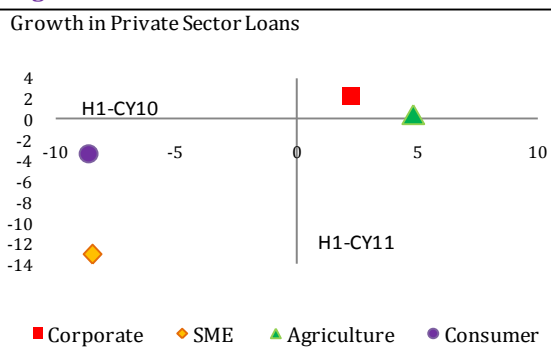
Domestic Lending by Sector of Economy (Rs. Billion)

	Dec-09	Jun-10	Dec-10	Mar-11	Jun-11
Textile	648	594	695	725	657
Cement	95	91	95	94	81
Sugar	62	82	73	139	122
Shoes & Leather garments	21	21	22	24	25
Automobile & Transport.equipment	52	47	36	37	41
Production & Transmission of Energy	294	327	348	368	374
Others	2,167	2,179	2,222	2,096	2,224
Total	3,339	3,341	3,490	3,484	3,523

Specifically, major borrowing industries like cotton and sugar build up their inventories in post Kharif harvest months and, with the maturity of operating cycle, retire their working capital finance in following months. For instance, lending (domestic) to textile sector after reaching its peak during Jan-Mar quarter witnessed a contraction of Rs 37.7 billion over Jan-Jun 2011 as the production cycle of leading subsectors i.e. weaving and spinning matured and cotton prices relapsed (*Table 1.1*). Lending to sugar sector substantially surged during sugarcane crushing months i.e. Q4 CY10 and Q1CY11 as higher commodity & input prices as well as increased production activity pushed up the credit needs of the sector; Q2CY11 however observed a slight contraction in bank credit.

...as SME and consumer finance continue to contract

Figure 1.9

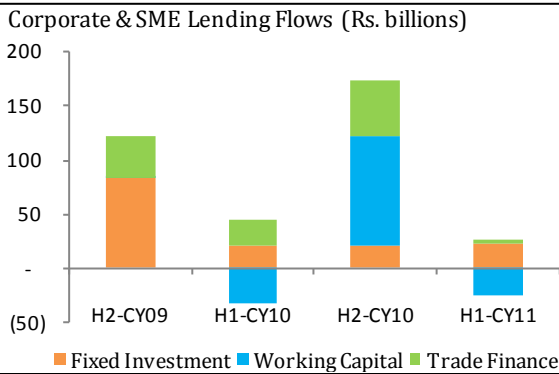


Segment wise break up reveals loans to corporate sector and agriculture registered a positive, albeit muted growth during H1-CY11 (*Figure 1.9*). On the other hand, lending to SME and consumer finance contracted by 13.1 and 3.4 percent respectively. While lending to SME segment have normally turned positive during the second half of every year¹, consumer finance has been on a steadily declining trend over the last few years amid challenging macro economic conditions (higher interest rate, lower GDP growth etc). Further, growing NPLs in both consumer and SME segments have made banks risk-averse to these sectors. Accordingly, H1-CY11 witnessed contraction in both SME and Consumer, further reducing their share in total advances to 10 and 8 percent respectively.

¹ It is partly because higher credit off take by corporate sector in the second half year also translates into higher input needs, generally supplied by the SMEs. This improves credit demand for SME sector.

.....notwithstanding a flicker of revival in fixed investment

Figure 1.10

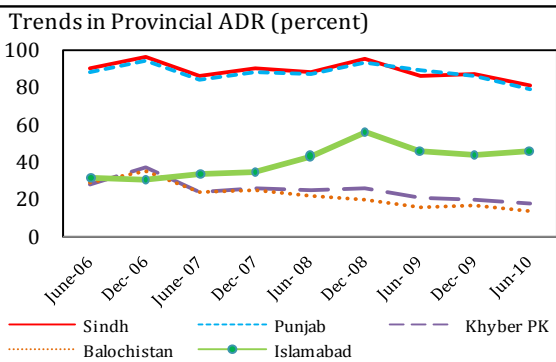


In terms of end use, loans to private sector were primarily disbursed in the fixed investment category, with major share in the power and sugar sector. However, the monthly breakup in fixed investment loans reveals that bulk of these loans were granted in the month of June, 2011 as earlier months of the half year under review registered a net decline. Despite some revival in June, 2011, fixed investments have been on a consistently declining trend, and actually registered the lowest annual growth (1.4 percent in FY11) in the last five years.

While loans for working capital have also declined during H1-CY11, it was primarily on account of contraction of Rs. 38.2 billion in SME sector that led to an overall decline (Figure 1.10). In case of corporate sector, while advances for working capital were up by 31.2 billion in the Q1 of CY11, bulk of these were retired in Q2, resulting in a subdued increase of Rs. 12.5 billion when viewed on half yearly basis.

Provincial ADRs are in line with respective business activity

Figure 1.11



ADR on regional basis provides some insights about how banks collect deposits and grant loans². In general, ADRs have been on a declining trend, suggesting that banks are using most of their incremental deposits in investments than for granting loans³ (Figure 1.11). Sindh province has mostly enjoyed the highest ADR over the recent years, evident from the greatest percentage of advances against collected deposits. While Punjab has trailed closely, ADR has been considerably lower for both Khyber-Pakhtunkhwa and Baluchistan provinces where banks have lend less than 20 percent of the deposits collected from these provinces⁴. These patterns are essentially dictated by the level of business opportunities and the consequent borrowing needs of firms and individuals in respective provinces. For example, higher ADR for Sindh can be largely explained by the business activity in Karachi alone, the financial hub of the country. The pattern for Islamabad appears

² For instance, Sindh's ADR of 80 percent in Dec-10 suggests that, if Rs. 10 million of deposits were collected from the province, around Rs. 8 million were given as loans within the same province. These numbers however should be interpreted with caution, given certain limitations of the data. Specifically, place of actual utilization of loans may be different from the place of disbursements. The provincial position may not reflect the true picture of loan utilization since large companies, with head offices in Karachi, Lahore, or Islamabad, might have used bank loans actually disbursed in these cities for their projects based in provinces like KP and Balochistan.

³ ADR explains how much of the deposits were turned into advances. Since, deposits have other uses in addition to making advances/loans (like investments etc), provincial ADRs would not add up.

⁴ As of December 2010, KP and Baluchistan have 6.2 percent and 2.1 percent share in total bank deposits, compared to 42 percent of Punjab, 35 percent of Sindh, 11.5 percent of Islamabad, and 3.2 percent of Azad Kashmir.

Table 1.2

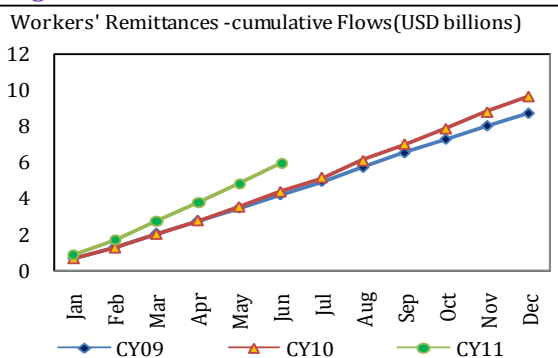
Structure of Banking Sector(percent)					
	Top 5	6-10	11-20	21-37	All
Market share in total assets	51.1	22.6	18.7	7.6	100
Advances to total assets	45.4	42.9	43.7	36.6	43.9
CASA to total deposits	65.8	62.1	55.1	52.9	62
Advances to deposit ratio	56.2	54.9	63.0	51.7	56.7
Public Sector Loans to total	24.1	12.7	6.3	8.1	17
Corp. Sector Loan to total	61.4	69.0	63.0	67.8	63.9
Pvt Corporate Loans to t. loans	54.6	62.1	62.2	64.6	59
SME loans to total loans	6.7	8.7	10.8	11.0	8.3
Consumer Finance to T. Loans	6.7	9.1	2.8	7.3	7
CoF to total Loans	19.6	8.5	8.2	6.4	13.8
Agri loan to T. loans (excl. ZTBL & PPCBL)	2.8	2.0	0.9	0.4	2

interesting as its ADR has surged from 2007 onwards. While a major part of the rise is due to small base effect, there appears to be relatively stronger lending activity in the capital territory in recent years, potentially on the back of real estate developments. Another possible explanation for relatively higher ADR is that some large companies, with head offices in Islamabad, may have availed the loans for onward utilization in the field offices located in other provinces.

Size has significant bearing on banks' lending strategy

Typically, banks' lending strategies have been contingent upon their ability to mobilize low-cost, stable deposits in the form of current and saving accounts (CASA). The big five banks, with 51% market share, conveniently mobilize greater amount of CASA, thanks to their brand recognition and extended outreach in the market. Accordingly, these banks are well positioned to target high quality borrowers, and are also relatively more into public sector lending and commodity finance (Table 1.2). On the contrary, smaller and medium sized banks generally mobilize deposits at relatively higher rate. To maintain their margins, they tend to focus more on private sector credit which yield higher returns because of greater risk of default. That also explains relatively higher infection ratios of these banks, as highlighted in the next chapter.

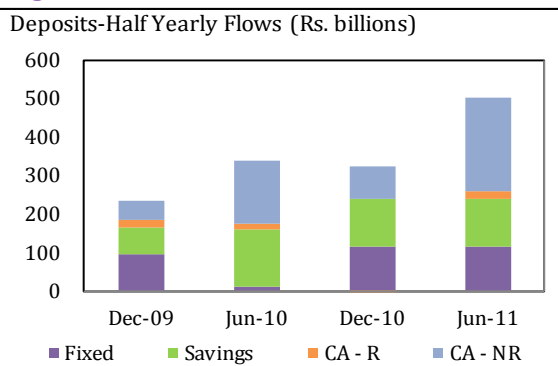
Figure 1.12



Remittances help deposits post record growth in a decade

During H1-CY11, deposit base of the banking system expanded by 9.4 percent compared to 6.3 percent in the corresponding period last year. Both in absolute (Rs. 515 billion) and growth terms, this was the most significant half-yearly rise in deposits in the last four years. Robust inflow of foreign remittances explains a large part of this stellar surge in banks' deposits. Specifically, workers' remittances during the half year under review were around \$5.9 billion, \$1.5 billion higher than that of remittances during the same period in CY10 (Figure 1.12).

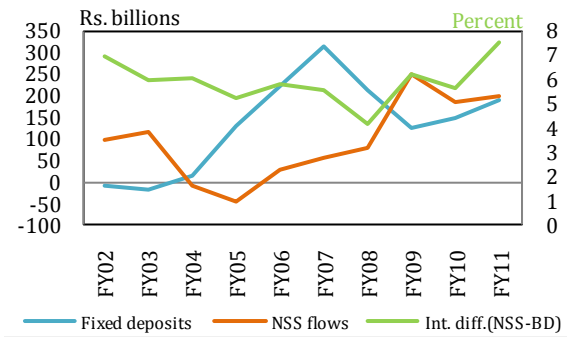
Figure 1.13



Break up of deposits by various categories reveal that more than 50 percent of growth in deposits was dictated by flows in current accounts (Figure 1.13). This further pushed up the share of current account in customer deposits from 33 percent to 35 percent during the half year under review. In general, current accounts show relatively greater volatility due to changing credit needs and transaction demand of the economy. Nonetheless, due to the easing of liquidity stress over the last few years, banks have been focusing more on current and

Figure 1.14

Substitution b/w Fixed Deposits & NSS-Net Flows



savings account then longer-term fixed accounts despite that the later offer incentives in statutory liquidity requirements.

NSS instruments appear a key substitute to fixed deposits

Despite the apparent difference in tenors, NSS instruments have been a key substitute of bank deposits, particularly of fixed tenor. It is partly because NSS instruments offer early encashment facility without penalty. Typically, in the presence of significant interest rate differential, movement towards NSS instruments is understandable. However, it has not always been the case, as evident from *Figure 1.14*. For instance, while interest rate differential has been around 6 percent during FY02-06, flows towards NSS instruments have actually plummeted. This was largely on account of banning institutional investments in NSS, suspension of DSCs and SSCs sales through banks and disallowing banks to lend against NSS instrument. However, with removal of ban on institutional investment in late 2006, flow towards NSS instruments resumed. In recent years, upward revision of NSS rates has attracted strong flow of investments, though fixed deposits have revived as well, particularly in FY11 amid strong growth in overall deposits.

Financial intermediation is traditionally defined as a process of channeling funds from surplus sectors of the economy towards the deficit sectors. The institutions that perform this function are known as financial intermediaries (banks are the most popular financial intermediaries in the world). The cost of performing intermediary services is termed as the cost of financial intermediation (COFI).

Issues in measuring banking spreads:

While the concept of COFI is straightforward, there is no single measure to gauge COFI in its true sense. In practice, it is proxy by margins or banking spreads indicating gap between some sort of representative lending and deposit rates of financial intermediaries. The most widely used indicators are the **net interest margin**--gap between interest earned and interest paid normalized by average earning assets or total assets—and the **banking spread** --gap between lending and deposits rates. However, both indicators are subject to limitations.

- NIM does not include any fee and commission paid by the customers. In practice, these charges will impact the effective rate of margin. Moreover, NIM also conceals information on marginal spreads due to inclusion of all earning assets or total assets.
- Measurement of banking spread is also subject to various limitations as the banks do not charge a single rate to all borrowers nor do they offer a uniform rate of return to all depositors. The lending and deposit rates also vary over time and from customer to customer depending on the credit worthiness of borrowers, amount and tenor of the deposit. The banks also charge fees and commissions for various services, which alter the effective cost of borrowing and returns on deposits. The measurement is further complicated by each bank's unique set of interest rates, which reflects its specific business activities, market share, and risk outlook. Against this backdrop, care must be exercised in interpreting changes in NIM or banking spread especially for policy making.

Banking Spreads-Stylized facts

Banking system of Pakistan is characterized by high banking spreads, which are generally linked to the efficiency of financial intermediation and competition in the banking sector. Such broad conclusions based on banking spread could be highly misleading as the level and temporal changes in banking spread depends on its definition and changes in operating environment.

Table 1: Indicators of Banking Spread

Narrowly defined Spread

$$SN1 = ((\text{Interest earned on loans}/\text{Average Loans}) - (\text{Interest paid on deposits}/\text{Average Deposits})) * 100$$

Broadly defined Spreads

$$SW1 = ((\text{Interest earned}/\text{Average Interest bearing assets}) - (\text{Interest paid}/\text{average Interest bearing liabilities})) * 100$$

$$SW2 = ((\text{Interest plus commission earned}/\text{Average Interest bearing assets}) - (\text{Interest paid}/\text{Interest bearing liabilities})) * 100$$

$$SW3 = (\text{Interest earned} - \text{Interest paid}) / \text{Average Assets}$$

Following Brock and Suarez (2000) and Koeve (2003), four different indicators of banking spread have been computed to highlight definitional issues. These indicators are broadly bifurcated into two categories according to the coverage of banks' assets and liabilities. Specifically, narrowly defined indicator is based on banks' loans and advances. On the other hand, broad definition of indicators take into account larger share of banks' assets and liabilities compared to the narrow definition (Table 1).

Calculation of various indicators of banking spread (defined in Table 1) reveals that level of banking spread for CY10 varies from 4.2 percent to 7.5 percent depending on their definition (Table2).

Table 2: Indicators of Banking Spread

	CY00	CY01	CY02	CY03	CY04	CY05	CY06	CY07	CY08	CY09	CY10
SN1	n.a.	3.4	5.4	4.6	3.0	2.9	4.7	5.7	5.3	6.4	6.9
SW1	4.7	5.0	4.3	3.6	3.4	4.9	5.3	5.0	5.4	5.4	5.3
SW2	5.7	5.9	5.1	4.4	4.4	5.8	6.3	5.9	6.3	6.3	6.1
Sw3	2.6	3.2	3.1	3.0	2.9	4.1	4.5	4.1	4.4	4.3	4.2
NIM	3.5	4.1	3.8	3.5	3.4	4.8	5.3	4.9	5.3	5.3	5.1
Spread-Marginal*	n.a	n.a	n.a	n.a	4.0	5.1	5.5	5.2	5.4	6.5	6.3
Spread-Stocks*	n.a	n.a	n.a	n.a	5.3	6.6	7.4	7.3	7.3	7.5	7.5

*: Based on monthly data of weighted average lending and deposits rates

Information in Table 2 can be summarized as follow:

1. Narrowly defined banking spread appears consistently higher as compared to broadly defined levels. This difference in levels primarily arises from the use of different basis for calculation of banking spread. It implies that the behavior of banking spread over time, based on a consistent definition, is more relevant for the analysis of COFI than the actual level of banking spread at one point in time.
2. Narrowly defined banking spread have been more volatile over time as compared to the wide definitions of the term. It implies that changes in banking spread over time must be interpreted with caution.

While there is no consensus on a specific definition of banking spread and a meaningful benchmark, the SW1 definition of banking spread is more appropriate for the analysis as it takes into account the earning assets and interest bearing liabilities of the banks.

Why High Spreads are Undesirable?

At macro level, high margins/spreads impede financial intermediation by discouraging potential savings with low returns on deposits, and constraining investment activities with a high cost of borrowing. Low savings and investment reduce the growth potential of the economy. This is particularly relevant for developing countries like Pakistan, where banks are the primary source of funding for private sector businesses.

Specifically, the private sector loans from the banking sector stood at Rs 3.4 trillion as of end June CY11 compared to an outstanding amount of Rs 68.9 billion in listed Term Finance Certificates (TFCs), and Rs 856.5 billion of listed capital at the Karachi Stock Exchange (KSE). This clearly indicates that banking system is the prime source of funding for the private sector businesses. Against this backdrop, the role of minimum banking spreads can hardly be overemphasized for overall business activities in the economy.

Do Pakistani Banks Enjoy the Highest Spread in the World?

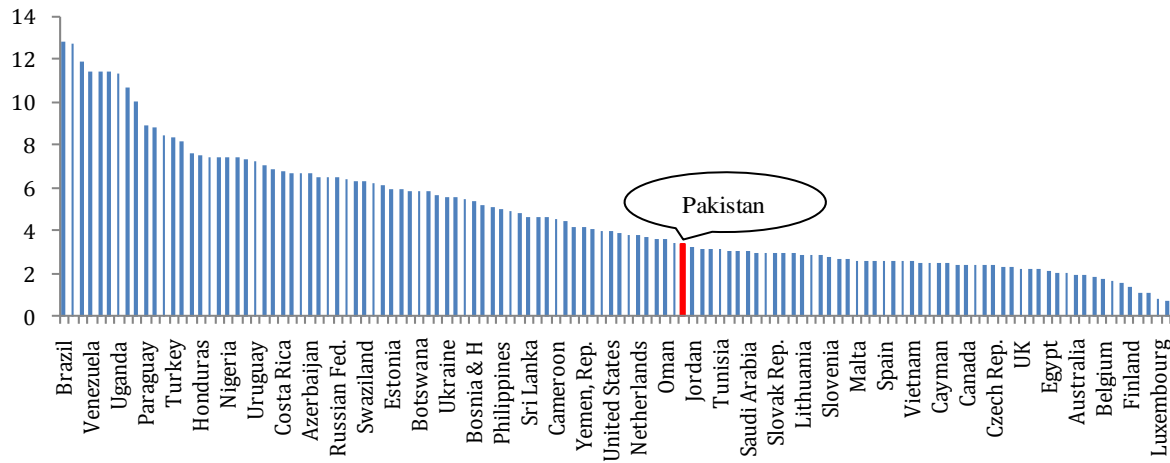
Short answer is, no. It may be noted at the onset that usefulness of cross country analysis of banking spreads is generally undermined by a number of factors including differences in level of financial development, regulatory environment, ease of doing businesses, charges on financial services, definitional issues etc. In spite of these limitations, it is a popular perception that banks in Pakistan enjoy the highest margins in the world. Being the regulator and supervisor of the banking sector, SBP has been vigilant of these issues. This is amply evident from the imposition of minimum 5 percent rate return on savings deposits with effect from 1st June 2008 to date, and detailed analysis of banking spreads in SBP flagship publications.

As for cross country comparison is concerned, information on net interest margin (NIM) of banking system from The World Bank database⁵ is used to find Pakistan's ranking among the countries. Furthermore, average NIM for each country is calculated by using annual data from 2001 to 2009. This helps in avoiding unnecessarily volatility in NIM across countries. Figure 1 shows that Pakistan is nowhere close to the countries with high NIM. Specifically, Pakistan's ranking turned out to be 69 among 122 countries: not even in the list of top 50 countries with high spread. In sum, it can be safely concluded that banking spreads in Pakistan are not the highest in the world.

What Drives Banking Spreads?

Figure 1

Net Interest Margin-Cross Country Comparison



It is important to note at the onset that there is no single factor that can explain temporal and cross sectional changes in banking spreads. The factors affecting banking spreads are generally classified into three broad categories including bank specific, industry specific and macroeconomic factors. It is worth noting that banks alone cannot control their margins. Industry specific and macroeconomic factors create an operating environment for banks, which has strong bearing on banking spreads. Some of major contributory factors to high banking spreads are analyzed in the following discussion.

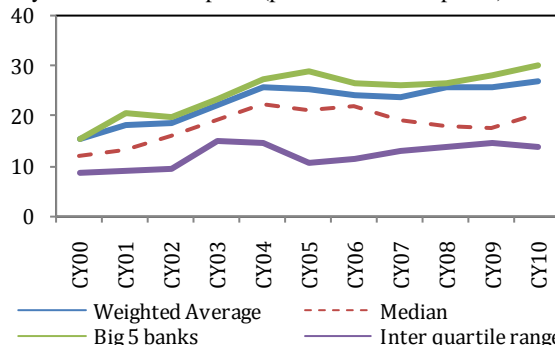
1. Structure of Bank Deposits

Deposits are the primary source of funding for commercial banks in Pakistan. Specifically, around 75 percent of commercial banks' assets are financed through deposits in recent years. Therefore, any change in behavior of depositors or structure of deposits will significantly affect the average cost of funding: a key component of banking spread.

To analyze the impact of deposit structure on banking spread, overall deposits of commercial banks are bifurcated into two broad categories: remunerative and non-remunerative deposits. Figure 2 depicts that a quarter of total deposits of commercial banks are non-remunerative(NR). It is also visible that the share of non-remunerative

Figure 2

Dynamic of NR Deposits(percent of total deposits)



⁵ Thorsten Beck, Asli Demircug-Kunt and Ross Eric Levine (2010) "A New Database on Financial Development and Structure" <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,contentMDK:20696167~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html>.

deposits in total deposits has gradually increased in recent years as big banks are offering speedy transfer of funds facility on these accounts. The distribution of non-remunerative deposits across banks reveals that big 5 banks hold 42.5 percent of non-remunerative deposits of commercial banks against their share of 38.2 percent in industry deposits. The skewed distribution of non-remunerative across banks is also visible from high share of non-remunerative to total deposits of big 5 banks and the gradual increase in inter-quartile range--measure of dispersion around the mean (Figure 2). The comparative advantage to big banks is largely based on their huge branch network and the banking with the government.

Regardless of the underlying reasons, non-remunerative deposits reduce the effective cost of funding for the banks. Simple arithmetic shows that Non-remunerative (NR) deposits suppressed the average returns on deposits by 197 bps in CY10 (Figure 3). Similar adjustment for the calculation of banking spread indicate that non-remunerative deposits pushed up banking spread by 187 bps in CY10. Specifically, exclusion of non-remunerative deposits reduces banking spread to only 3.4 percent compared to actual level of 5.3 percent. These calculations provide ample evidence that existing deposit structure plays an important role in keeping banking spread high.

2. Impact of NPLs on the Banking Sector

NPLs of the banking system are driven by a number of factors including economic activities, legal system, unexpected shocks, and credit evaluation ability of the banks. Apart from of the underlying factors, increase in NPLs has strong influence on the banking spread. It not only reduces the earning assets of banks, but also imposes a cost in the form of provisions. In case of Pakistan, the banks are required to provide for the amount of non-performing loans after adjusting for permissible partial benefit of collateral. Moreover, NPLs to advances ratio has witnessed steady rise in recent years. It has reached 14.4 percent by end CY10 against 5.7 percent in CY06: more than doubled in just 4 years. Incidence of this massive rise in NPLs on banking spread has also increased over the same period (Figure 4). Specifically, NPLs contribution to banking spread⁶ stood at 175 bps during CY07-10⁷ compared to 50 bps during CY03-06.⁸

3. Administration Expenses

Admin expenses set a lower limit for overall banking spread. Banks have to break-even this cost by maintaining a gap between their lending and deposit rates or by charging fee or commission on financial services. The margin required to meet such expenses is also known as pure spread, which is considered a better proxy for cost of financial intermediation compared to overall spread.⁹

Figure 3

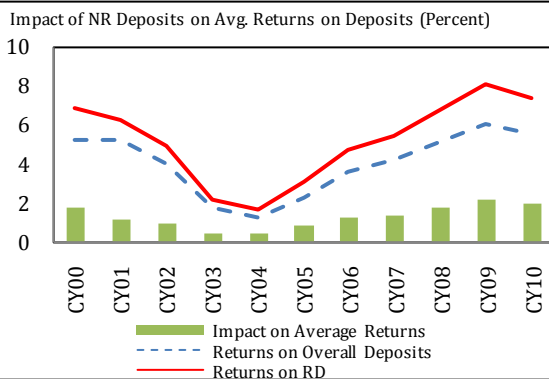
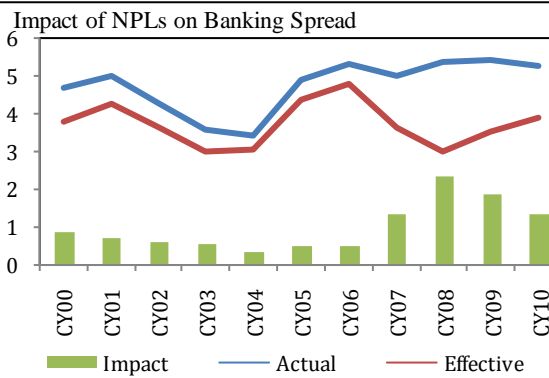


Figure 4



⁶ To estimate the impact of NPLs on the banking spread, average returns on earning assets are adjusted for the provisions and bad debts directly written off during the year. Subsequently, these adjusted average returns are used to calculate an implied banking spread. The gap between actual and implied banking spread represent the impact of NPLs on banking spread.

⁷ Period of low growth and high interest rates.

⁸ Period of strong growth and single digit interest rate.

⁹ This intuitively makes sense as administrative expenses represent the resources used by banks in providing services of financial intermediation.

While there is no specific benchmark to follow, it is desirable that admin expense to earning asset ratio should be on lower side. Figure 5 shows that admin expenses to average earning asset ratio for commercial banks in Pakistan has gradually increased to 3.5 percent in recent years. This is an unhealthy development as increase in admin expenses will be passed on to the depositors in the form of low returns or the borrower in the form of high lending rates.

Cross-sectional details reveal that individual banks are converging towards industry average (Figure 5). Both the gradual increase and narrowing dispersion suggest that admin expenses have increased across the commercial banks. This could be attributed to a number of factors including:

- Increase in financial services. Banking services especially related to fund transfer facilities have increased in recent years. Provision of these services directly contributed to admin expenses of banks.
- Cost of doing businesses has significantly increased in recent years. Besides persisting infrastructure deficiencies, energy shortages and heightened security concerns have exerted strong pressures on admin expenses.
- Double digit inflation also contributed to hike in admin expenses as the bank employees were partly compensated for high inflation and cost of office usable also jumped.

Among these factors, it seems that macroeconomic factors are at play as: (1) increase in admin cost was observed across the banks, not attributed to few big banks; (2) administration expenses of other financial intermediaries also increase, for example admin expenses on mobilizing funds through national savings schemes also increased over the same period (Figure 6); and (3) operating macroeconomic environment has deteriorated in recent years.

In spite of all these development, the banking sector of Pakistan is operating at reasonably low level of admin expenses to asset ratio (Figure 7).¹⁰ Specifically, Pakistan falls in the list of top 40 countries with lowest overhead costs to asset ratio.

4. Cash Reserve Requirements

Cash reserve requirements (CRR) are considered an implicit tax on financial intermediaries. It creates a wedge between lending and deposits rates by reducing the maximum loan-able funds against the amount of deposits mobilized. In case of Pakistan, schedule banks are required to hold 5 percent of their demand deposits with SBP as cash reserve requirement (CRR). Moreover, CRR is non-remunerative in Pakistan. It implies that banks can extend maximum loans of Rs 95 against demand deposits of Rs 100. If we assume lending rate of 10 percent and interest earned is directly passed on to depositors, the maximum deposit rate will be 9.5 percent-creating a spread of 50 pbs. It is important to note that impact of CRR on banking spread is an increasing function of interest rates, i.e. interest rates and

Figure 5

Admin Expenses to Earning Asset Ratio

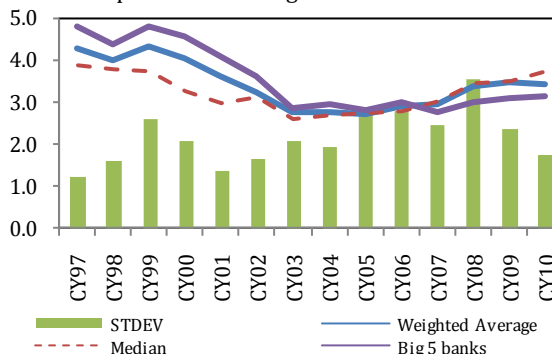
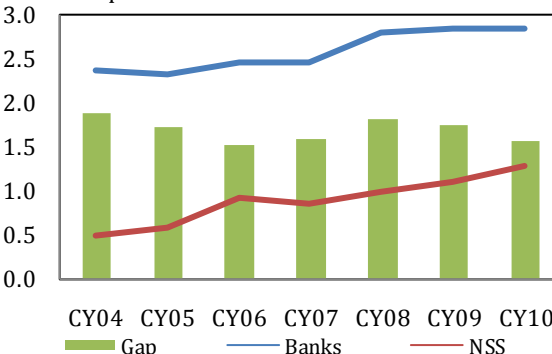


Figure 6

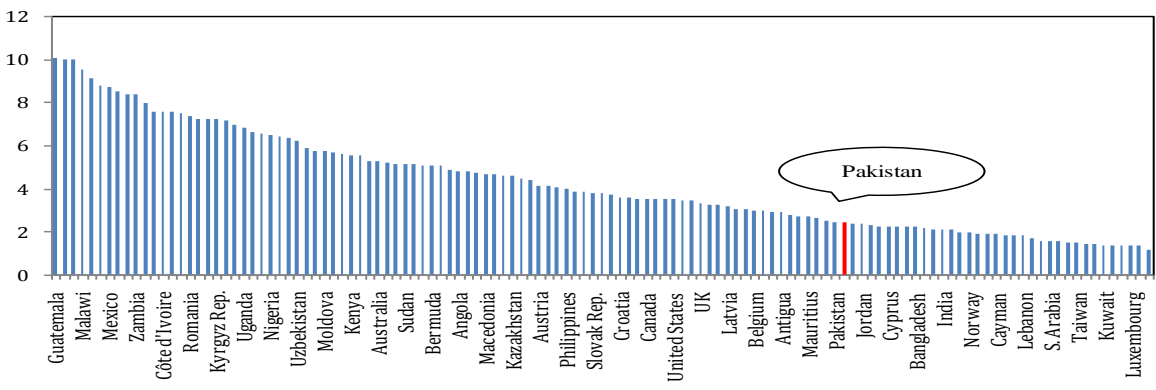
Admin Expenses to Asset Ratio



¹⁰ Source: Thorsten Beck, Asli Demircug-Kunt and Ross Eric Levine (2010) "A New Database on Financial Development and Structure" <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:20696167~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html>.

Figure 7

Overhead Cost to Asset Ratio



banking spread moves in same direction.

5. Interest rate and Banking Spread

Although a bank has considerable control on its lending and deposits rates, market interest rates used as a benchmark for pricing loans and deposits are taken as given for a single bank. The market rates are primarily determined by a large number of market players (banks and NBFIs) and monetary policy of the central bank. Moreover, it is generally observed that there is no one to one increase or decrease in the lending and deposit rates in response to changes in market interest rates. This is popularly known as an incomplete pass-through of market interest rates to retail rates (lending and deposit) of banks.

Another point to note is the asymmetric natures of movement in retail bank rates in response to change in policy rate. Although degree of asymmetric movement in retail rates depends on interest rate elasticities of loans and deposits, it is widely observed that lending rate adjust more quickly (in terms of time) than the deposit rate in an increasing interest rate scenario, thus pushing up the banking spread.

Changes in interest rates along with a positive gap between interest bearing liabilities (deposits & borrowing) and earning assets also impact the banking spread. Figure 8 shows that earning assets of commercial banks are less than their interest bearing liabilities. It implies that in an increasing interest rate scenario, a rise in average interest on earning assets must exceeds the rise in average returns on interest bearing liabilities, even if pass-through of market interest rates to retail rate is 100 percent: ultimately pushing up the banking spread. Opposite will be the case in a decreasing interest rate scenario. The same is also visible form positive association between banking spread and average policy rate (Figure 9).

6. Taxation

Both direct and indirect taxes on financial institutions are passed on completely to the customers. Like CRR, taxes on financial transactions also drive a wedge between what

Figure 8

Earning Assets to Interest Bearing Liabilities

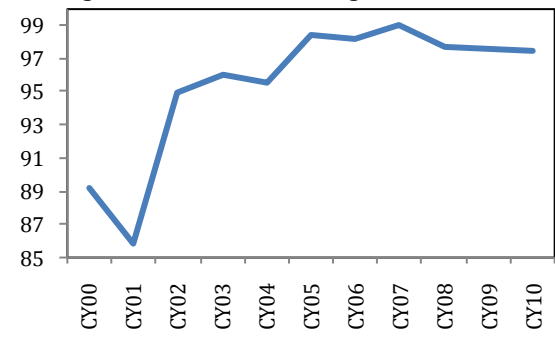
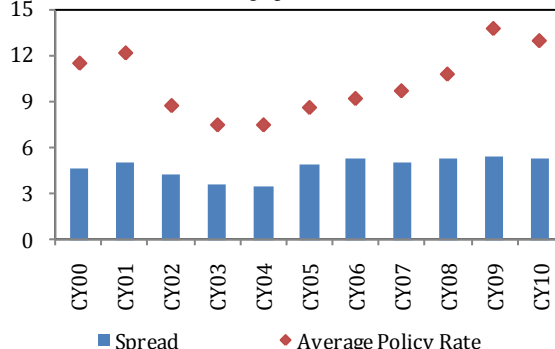


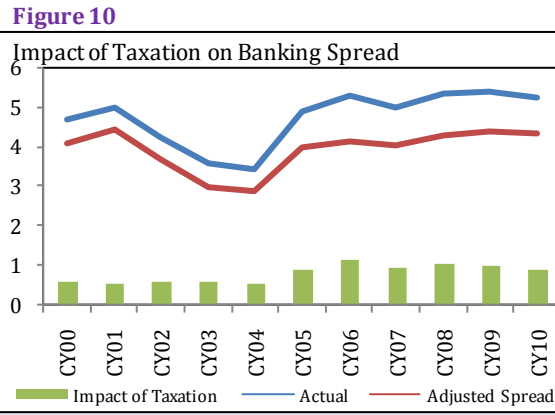
Figure 9

Interest rate and Banking Spread(Percent)



borrowers pay and lenders receive, thus contributing to spread. However, incidence of taxation on customers depends on the elasticity of demand for credit and on the elasticity of supply of deposits. Aggregate data of commercial banks reveals that amount of taxation for CY10 stood at 0.7 percent of average assets and 0.9 percent of average earning assets. Further calculations indicate that banking spread for CY10 will reduce by 90 bps to 4.4 percent if the benefit of taxation (current) is fully passed on the borrowers (Figure 10).

Last but not the least overall economic activities also play an important role in determining banking. Spread. Specifically, strong GDP growth not only affects the supply of loan-able funds (through deposits) for the commercial banks, it also favorably impacts the banking system by strengthening repayment capacity of the borrowers. Negative association between NPLs of the banking system and real GDP growth is well documented in literature and in SBP flagship publications. As mentioned earlier, increase in provisions to provide for non-performing loans exerts upwards pressure on banking spread.



Above discussion indicates that banking spreads are the outcome of various factors including structure of banking sector deposits, explicit or implicit taxation, non-performing loans, administrative expenses, macroeconomic environment etc. Therefore, an appropriate interpretation of both the level and trends in banking spreads in Pakistan cannot be made without taking into account these factors.

Advances to Deposit Ratio (ADR), as a measure of liquidity, is generally used to evaluate a bank's ability to repay depositors and other creditors without incurring excessive costs and while continuing to fund growth. While it was a popular regulatory tool in 80s and 90s, ADR started to lose appeal as introduction of modern financial techniques enabled banks to maintain lending growth despite relatively high ADR, at least in financially sophisticated markets. For instance, securitization of loans made it possible for banks to expand their loan books by selling off old loans. However, ADR has gained currency after global financial crises of 2007-08 where some of the countries used it to restrict credit growth. Here we explore how ADR has been used by regulators in some of the selected countries and what have been the trends in Pakistan.

Using ADR as a regulatory tool: ADR has been used to achieve variety of objectives. For instance, USA has used it to ensure that banks don't use a particular geographic region to merely collect deposits. On the other hand, Indonesia, China, and Korea have used it to contain growth in lending in the buildup of economic upswings. A few examples follow:

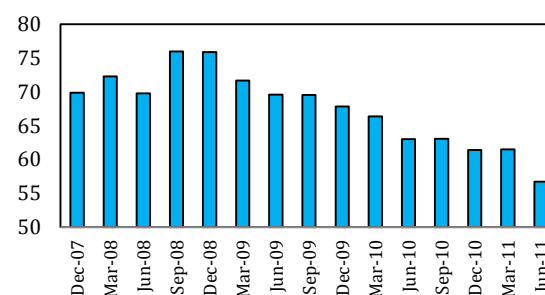
- In USA, state-wise ADR¹¹ is used to determine whether a bank will be allowed to open or acquire a branch outside of its home state. In particular, section 109 of Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 prohibits a bank from establishing or acquiring a branch or branches outside of its home state primarily for the purpose of deposit production. If a bank's statewide ADR is at least one-half of the published host state ADR, the bank is considered compliant. FDIC publishes the LDR for each state on annual basis. The data for 2010 reveals that state-wise LDR ranged from a low of 57% in Delaware to a high of 166% in North Dakota
- The central bank in Indonesia (Bank Indonesia) has introduced a range for ADR to encourage financial intermediation and to ensure prudent lending practices. According to a new policy announced in September 2010, banks with ADR outside the range of 78-100% will need to maintain additional reserve requirement (RR). Specifically,
 - Banks with ADR below the lower limit of 78% will face an additional 0.1 RR from Rupee deposits.
 - Banks with ADR exceeding upper limit of 100% and with CAR below 14% will face additional 0.2 RR from Rupee deposits, and
 - Banks with ADR exceeding upper limit of 100% but with CAR above 14% will face no additional reserve requirement.

However, critics argue that a similar policy introduced in 2005-2006 was not effective, as banks opted to increase their RR instead of granting more loans because of the unfavorable market conditions prevailing at that time.

ADR trends in Pakistan: In Pakistan, ADR has been on a consistent decline since 2008, falling from 76.0 percent in Sep-08 to 56.7 percent by June-11 (Figure 1). Typically, the urge to earn profit serves as a natural floor on ADR, forcing banks to lend to private sector instead of placing money in low-

Figure 1

Trends in ADR (percent)



¹¹ More precisely, both USA and Indonesia have used the term Loan to Deposit Ratio (LDR).

yielding government paper. However, with government's increasing reliance on banks to raise finances with a concomitant rise in risk free rate to as high as 14 percent, the incentive for banks to private sector lending has significantly subdued, particularly in a stressed business environment marred by energy shortages and deteriorating law and order situation.

Local private banks and particularly foreign banks have been keen to switch their asset mix from advances to investments. Foreign banks, with their dwindling role in local market, have mostly resorted to placing funds in government papers,

indicated by their higher Investments-to-Deposits Ratio (50 percent). The distribution of banks on the basis of the ADR suggests that 2 banks have their ADR above 100 percent (these are two specialized banks). However, when viewed against regional trends, the absolute level as well as the range of changes in ADR in Pakistan has been in line with many countries in the region (Figure 2).

Experience of ADR as a policy tool in Pakistan: SBP introduced a cap on ADR in October 2008, restricting it to 70% to limit excessive credit growth. However, it was precisely the time when banks started reducing their exposure to private sector credit amid growing economic challenges both on domestic and international front. Further, government's relentless borrowing from the banking sector further reduced banks appetite for private sector credit. As a result, ADR have continued to drop consistently since Q3-2008, making ADR ceiling irrelevant for practical purposes. If the current trend in declining ADR continues unabated, SBP might have to consider the introduction of a floor on the ratio, encouraging banks to lend to the private sector. Admittedly, it would be a stretched proposition, given the subdued demand for private credit amid severe energy shortages and a challenging business environment.

