Chapter 2 Risk Analysis of the Banking Sector

Asset quality of the banking sector marginally deteriorated during H1-CY13. A slight increase in NPLs coupled with a meager decline in lending portfolio increased the infection ratios, though provisions coverage and capital impairment ratios improved. Fund based liquidity profile of the banking sector remained steady; though, market liquidity remained under pressure which kept the interbank lending rates closer to the ceiling of the interest rate corridor. With decrease in borrowings, consistent growth in deposits became the sole supporter of the fund based liquidity. Market risk profile of the banking system stayed well contained despite uncertainties in the local economic environment and continuing stress in the external position

Figure 2.1

Public & Private Sector Credit Flows (PKR billion)

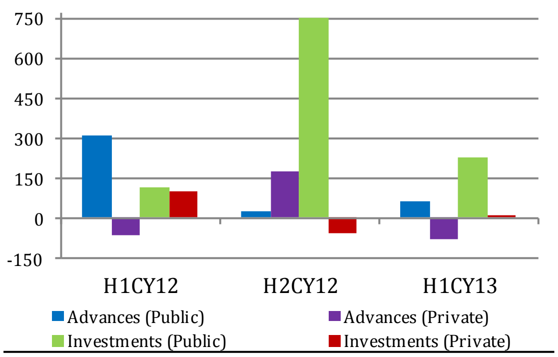


Figure 2.2

Flows in Credit Risk Weighted Assets (CRWA)

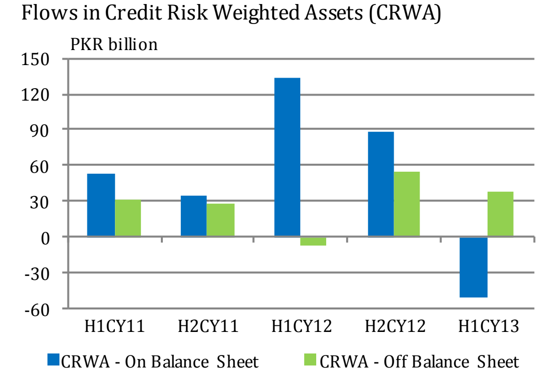
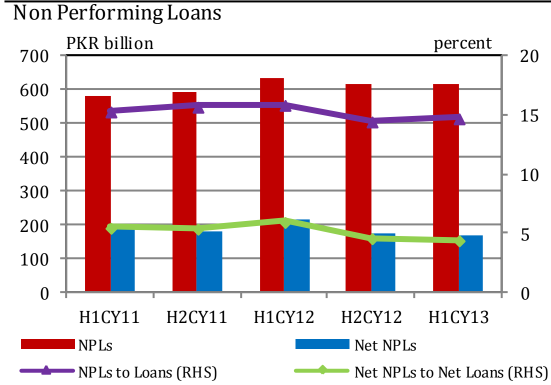


Figure 2.3

Non Performing Loans



Credit Risk

Persistent increasing trend in seasonal commodity financing, significant retirement of energy sector loans, recoveries against NPLs, and some growth in the consumer segment were the hallmarks of H1-CY13 **(Figure 2.1)**. The sector continued to witness stagnancy in private credit flows accompanied by a high stock of infected portfolio that rose marginally during the review period.

Credit Risk Weighted Assets (CRWA) declined…

The CRWA decreased by 0.4 percent during H1-CY13 against 3.7 percent increase in corresponding period last year. This decline in CRWAs was attributable to 2.4 percent dip in fund based exposure on private sector **(Figure 2.2)**. The off balance sheet assets, however, grew by 3.5 percent, thus increasing the off balance sheet CRWA by 6.1 percent. Within off balance sheet assets, 8.9 percent rise in contingent liabilities was the main contributing factor towards the growth.

Mix of factors contributed towards nominal rise in infection ratio…

The asset quality observed marginal deterioration as NPLs increased by 1.5 percent to PKR 616 billion during the first half of CY13 (3 percent decline YoY). This coupled with a meager decline in loans, increased the infection ratio by 26 bps to 14.8 percent (**Figure 2.3)**. Analysis of sources of NPL flows highlight that recoveries made during H1-CY13 were slightly on the lower side (1 percent less than H1-CY12), which contributed to minor rise in NPLs (**Figure 2.4**).

The accumulation of infected portfolio, receded in recent periods (**Figure 2.5**). The slowdown positively impacted the overall infections ratios; the gross (net) infections ratio saw a steady decline from a peak of 16.7 (6.4) percent in Sep-11 to 14.8 (4.4)

Figure 2.4

Recovery to Flow of NPLs

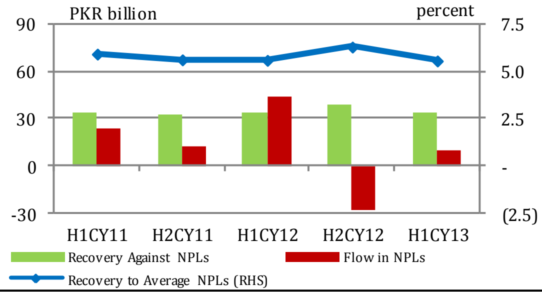


Figure 2.5

Growth in NPLs (QoQ)

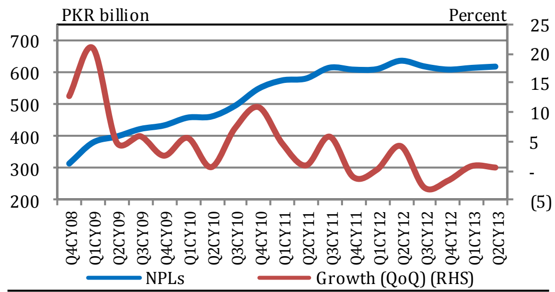


Figure 2.6

NPLs and Restructured Portfolio (PKR billion)

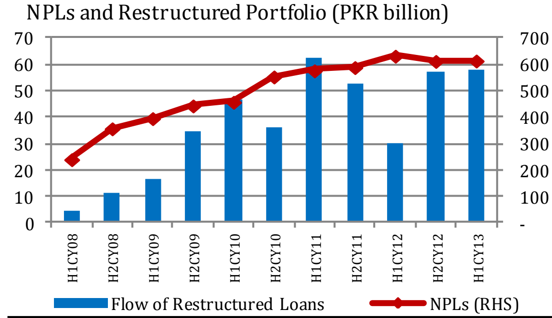
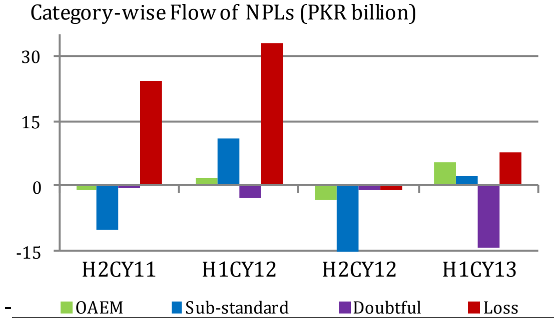


Figure 2.7

Category-wise Flow of NPLs (PKR billion)



percent in Jun-13. Provisions coverage ratio also improved as partially provided for NPLs migrated to fully provided for category[21]. With dampening credit flows, incidence of NPLs lowered on bank gross income. The provisions charge came down to 7.8 percent of gross income in Jun-13, which consistently stayed above 10 percent during CY07-CY11 (**see Box 2.1**).

Over the last few years, in an effort to resolve NPLs, banks successfully restructured loan portfolio particularly the corporate borrowers. This approach facilitated banks in restricting flow of NPLs, while ensuring that the viable corporate remained operational. In line with trend in H2-CY12, a significant amount of NPLs were rescheduled/ restructured by banks during H1-CY13, which helped in reducing the rate of growth of NPLs **(Figure 2.6)**.

Moreover, a look at flows in different classification categories reveals that majority of these rescheduled/ restructured loans belonged to the Doubtful loans category, as the remaining three categories exhibited positive flows during H1-CY13 **(Figure 2.7)**. Interestingly, Other Assets Especially Mentioned (OAEM) category showed rise mainly resulting from Agriculture sector, where seasonal factor as well as some other contingent factors like excessive rain and declaration of certain areas as calamity, played its part.

Provisioning requirements rose as FSV benefit started wearing out…

While NPLs slightly rose, required level of provisions significantly increased due to shifts within different categories of classification and wearing out of the FSV benefit. Banks kept the provisions to around 104 percent of the required level largely due to general reserve created by banks for consumer finance portfolio[22]. Increase in specific provisions, improved the provision coverage to 73.2 percent[23] in H1-CY13 compared to 71.5 percent in H2-CY12. Consequently, net infection reduced by 20 bps to 4.4 percent, while capital impairment represented by

[21] In terms of R-8 of Prudential Regulations for Corporate, NPLs are classified in to three categories namely Sub-standard (overdue by 90 days, 25% provisions required), Doubtful (overdue by 180 days, 50% provisions required), and Loss (overdue by one year or more, 100% provisions required).

[22] Total provision exceed the required provisions as bank create general provision under various Prudential regulations, particularly for the Consumer Finance(CF) portfolio to protect banks from the risks associated with the economic cyclical nature of this business. In terms of regulation R-4 of the Prudential Regulation for CF, banks are required to maintain a general reserve at least equivalent to 1.5% of the consumer portfolio which is fully secured and 5% of the consumer portfolio which is unsecured.

[23] It is the highest level of coverage ratio since H1-CY10.

Figure 2.8

Provisions against NPLs

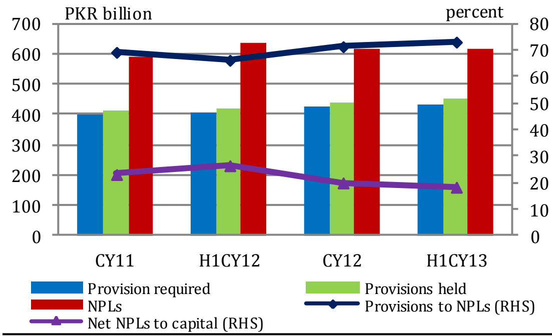


Table 2.1: Asset Quality by Bank Category

in percent

	CY12	H1CY13			
	Infection Ratio	Infection Ratio	Net Infection Ratio	Provision Coverage	Net NPLs to Capital
PSCBs	16.9	17.1	6.7	65.2	31.0
LPBs	13.3	13.5	3.3	77.8	13.7
FBs	13.4	11.3	0.5	95.9	0.7
CBs	**14.1**	**14.3**	**4.1**	**74.5**	**16.7**
SBs	27.6	30.7	17.2	53.2	100.1
All banks	**14.5**	**14.8**	**4.4**	**73.2**	**18.3**

Figure 2.9

Credit Flows (PKR billion)

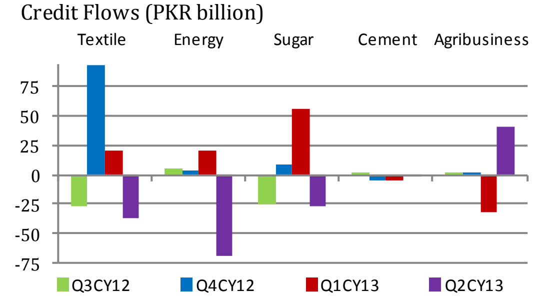


Figure 2.10

Energy sector growth and NPLs (PKR billion)

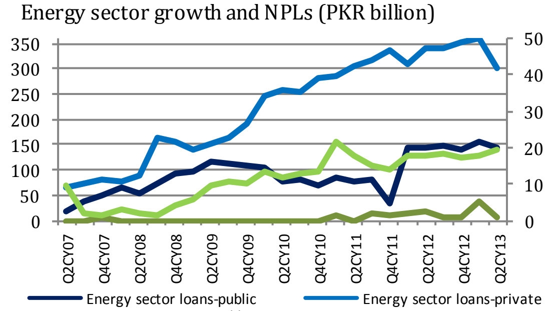


Table 2.2: NPL Ratio of Consumer Financing

(Private sector only)				in percent
	Share		Infection Ratio	
	CY12	H1CY13	CY12	H1CY13
Credit cards	9.25	8.35	21.52	16.41
Auto loans	18.12	19.50	10.26	8.56
Consumer durable	0.05	0.04	71.65	68.34
Mortgage loans	21.17	19.76	31.38	31.10
Other personal loans	51.40	52.35	13.50	12.13
Total	**100.00**	**100.00**	**17.47**	**15.56**

Net NPLs to capital ratio, decreased by 107 bps to 18.3 percent **(Figure 2.8)**.

Infection rose across the board …

During H1-CY13, the gross infection ratio increased for all categories of banks, except Foreign Banks (FBs). In case of Local Private Banks (LPBs), increase in NPLs of both public and private sector manufacturing concerns was the main reason behind this rise in infection. In terms of asset size, majority of the banks exhibited worsening of the infection ratios. However, medium sized banks ranked from 6 to 10 showed considerable decline in their infected portfolios as they improved recoveries from some of their corporate borrowers **(Table 2.1)**.

Textile and PTE sectors exhibited high concentration…

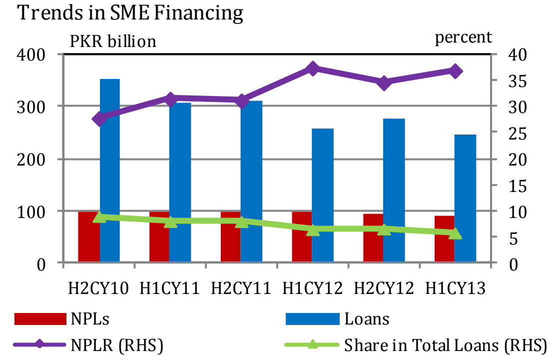
Owing to seasonal pattern of cotton and sugarcane products, finance to textile and sugar sectors exhibited growth in Q4-CY12 and Q1-CY13 respectively, while second and third quarters of CY13 observed a decline in lending activities **(Figure 2.9)**. In line with the established pattern, outstanding exposure of the textile industry declined by 2.5 percent, as compared to 7.1 percent decrease in H1-CY12. However, being the largest sector in the industry, concentration concerns further intensified as its classified portfolio increased to 30.7 percent in H1-CY13, compared to 29.6 percent in H2-CY12. Though concentration concerns in the PTES remained significant, infection ratio of the sector worsened mainly in private sector as classified loans piled up (**Figure 2.10**).

SME portfolio plunged again…

With the overall inhibited activity in advances, SME portfolio also followed suit and recorded 11.7 percent decrease thus reducing its share in total outstanding loans of the banking industry to 5.8 percent (6.6 percent in H2-CY12). The textile and sugar sector, which have direct linkages with or represent some of the SMEs, made net retirements. Consequently, demand for credit from the SMEs also subsided and NPLs of the sector increased. As a result, the infection rate in the SME sector that was already the highest further increased by 230 bps to 36.9 percent **(Figure 2.11)**.

Figure 2.11

Trends in SME Financing



…while growth in consumer segment hinted at a probable revival

In contrast to the overall shrinkage in lending portfolio, consumer finance exhibited gradual improvement. During the period under review, consumer finance increased by 4.9 percent to PKR 262 billion. Analysis of various categories shows that auto and personal loans were mainly responsible for this growth **(Table 2.2)**. With growth in consumer portfolio and decline in NPLs, the overall infection ratio reduced to 15.56 percent.

Box 2.1

Asset Quality

The asset quality of the banking industry significantly deteriorated over the last decade owing to constrained socio-political conditions and subdued economic growth. A multitude of factors influenced the growth of infected portfolio of banks including deceleration in GDP, continuing power shortages, security concerns, devastation caused by unusually high floods and torrential rains in 2010 and 2011, and slow pace of decision making in NPLs under litigation **(Figure B1)**. Consequently, non-performing loans (NPLs) surged from PKR 218 billion in CY07 to a peak of PKR 635 billion in Jun-12. However, NPLs declined in recent times as they stood at PKR 616 billion in Jun-13. The decline in NPLs can be attributed to a number of reasons including the following:

- Since flow of credit remained subdued over the last few years, banks focused on managing the existing loan portfolio, which allowed them to limit the flow of fresh NPLs.
- State Bank rationalized its regulations through enhancing the FSV benefit on collateral held against the NPLs. An obvious outcome was lower provisions charge against the classified portfolio, leading to relatively improved earnings. However, while allowing this benefit, SBP placed bar on use of FSV benefit for dividend payouts[24].
- In order to streamline and standardize disclosures of Islamic Banks/Islamic Banking Branches, all Financings, Advances, Inventories and any other related item(s) pertaining to Islamic modes of financing, previously reported under „Other Assets" were allowed to be reported as a part of the „Islamic Financings and Related Assets". These changes in disclosure provided one time enhancement in volume of financing of Islamic banks and dip in infection ratios[25].
- Owing to multiple issues faced by the large corporate groups, banks pursued restructuring of promising borrowers. Successful restructuring of loan portfolio of such groups helped in restricting flow of NPLs, while ensuring that the viable corporate remained operational.
- During the last few years, banks remained focused on recovery of infected loans, which helped them in consistently improving cash recoveries against NPLs. Some banks adopted new and innovative strategies for recovery of NPLs which allowed them to clean up infected portfolio from their books, without incurring material losses (**Figure B2**).

Figure B1

Trend in GDP growth and NPL to loan ratio (percent)

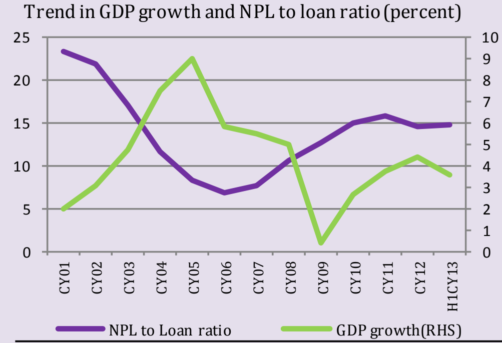
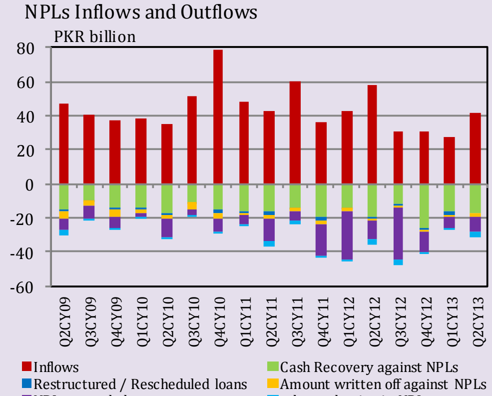


Figure B2

NPLs Inflows and Outflows



24 Regulation 8 –"Classification and Provisioning" of the Prudential Regulation for Corporate Commercial/Banking

25 BSD Circular Letter No. 03 dated the 22nd January, 2013 URL: http://www.sbp.org.pk/bsrvd/2013/CL3.htm

Figure 2.12

Trends in O/N rates and Liquidity Premium (percent)

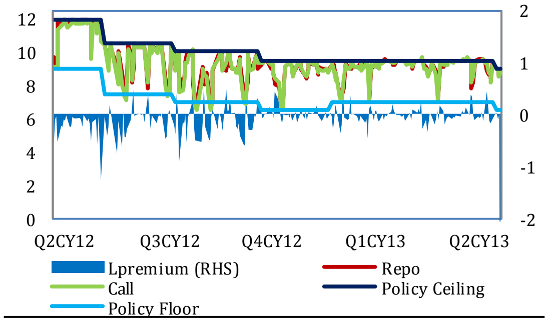


Figure 2.13

Open Market Operations & Repo Borrowings (PKR billion)

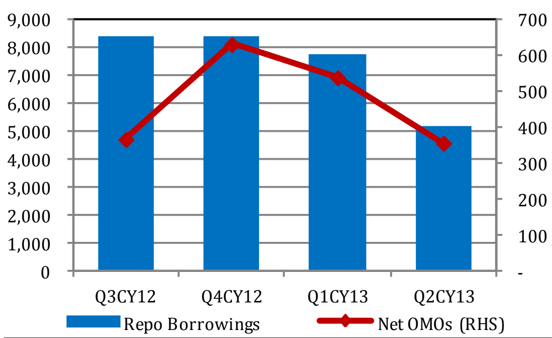


Figure 2.14

Government Securities by category

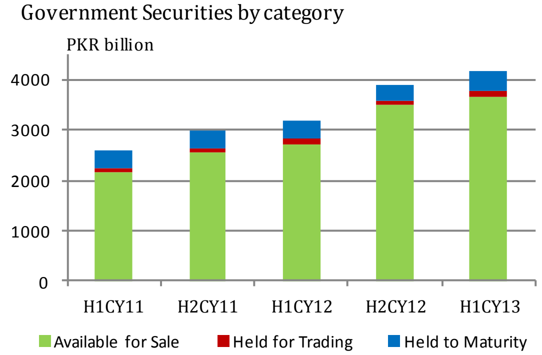
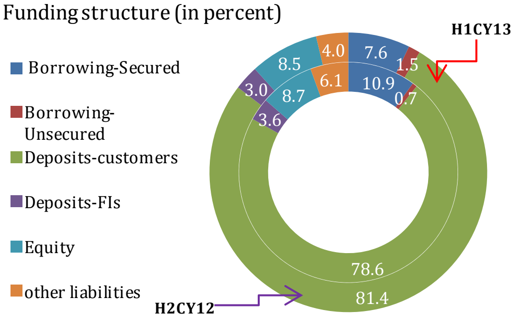


Figure 2.15

Funding structure (in percent)



Liquidity Risk

The liquidity profile of the banking sector remained steady during the first half of CY13 as banks further added to the stock of risk free government securities. With increased reliance of the Government on SBP for meeting its fiscal needs and subduing flows to the private sector, banks made net-retirement of secured borrowings from the SBP, while a decent deposits growth provided for most of its funding needs. However, liquidity strain in the market due to depleting foreign exchange reserves and unpredictable behavior of Government borrowings kept the overnight repo rate close to upper bound of interest rate corridor. Despite constrained market liquidity, rising fund based liquidity improved the liquidity indicators of the banking sector in the period under review.

Market liquidity: SBP gradually reduced its influence in the market…

During the period under review, SBP took various measures including narrowing down of interest rate corridor by 50 bps with the objective of managing exchange rate stability and controlling excess money supply. While these measures facilitated in limiting exchange rate depreciation, other objective remained unfulfilled due to heavy budgetary borrowings. In the meantime, gradual decline in Open Market Operations (OMOs), led banks to recourse to interbank market for meeting short term liquidity needs particularly in the second quarter of the CY13[26]. Together, these factors resulted in pushing the overnight rates towards the ceiling of the corridor and on some instances even crossing it during H1-CY13 **(Figure 2.12 & 2.13)**. Higher overnight rates meant that during H1-CY13, banks did not utilize SBP's discount window as often as they did in H2-CY12.

Since market liquidity continued to remain strained during H1-CY13, banks persisted with their liquidity preference through placement of most of the securities into Available for Sale (AFS) category of investments. Banking sector registered a modest 6.1 percent increase in their investments in MTBs and PIBs (29.5 percent in H2-CY12), as Government was not able to raise the targeted amount in its auctions during H1-CY13. Given the unchanged liquidity preference of banks for managing market liquidity, most of these additional investments were placed in

[26] Please see Section 4.1 of Chapter 4 of Annual Report 2012-2013 (State of the Economy).

Figure 2.16

Maturity Profile of Deposits (PKR billion)

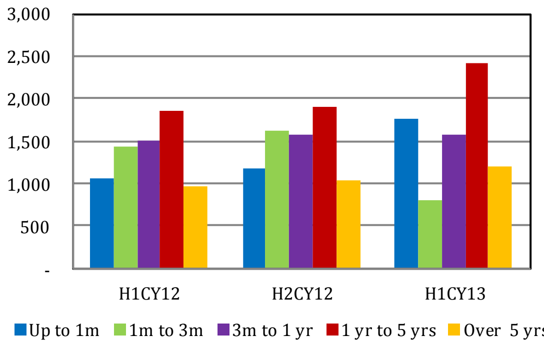


Figure 2.17

Maturity Gap (Assets-Liabilities) as percent of Assets

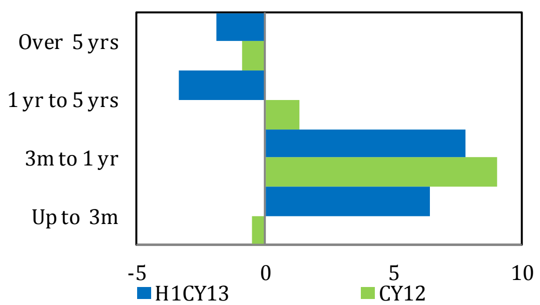


Figure 2.18

Liquid Assets percent)

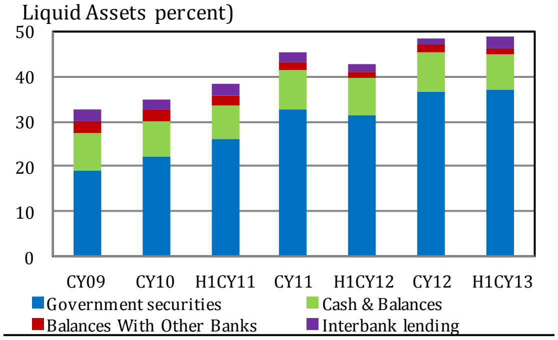
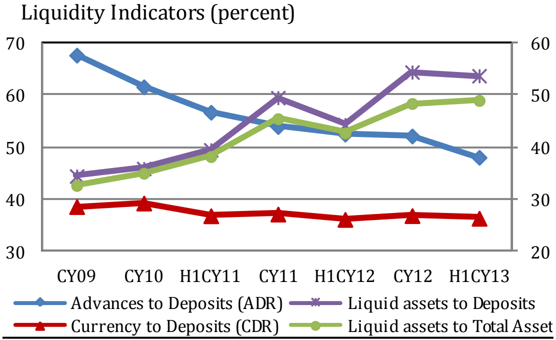


Figure 2.19

Liquidity Indicators (percent)



AFS category. In terms of share, 93 percent of MTBs and 73 percent of PIBs were placed in AFS category as of end Jun-13 **(Figure 2.14).**

Deposits continued to be the mainstay of fund based liquidity

With a growth of 6.3 percent in H1-CY13 (7.2 percent in H2-CY12), deposits proved to be the sole contributor towards managing funding requirements **(Figure 2.15)**. With 18.7 percent decline in borrowings further substantiated reliance of the banking sector on deposits during H1-CY13. Maturity profile of the deposits indicated that deposits maturing within one month increased, while the ones having maturity between one month and one year declined **(Figure 2.16)**. Significant growth in current deposits (13.7 percent) and decline in fixed deposits (1.3 percent) was the reason behind this phenomenon. Moreover, long-term deposits (maturity greater than one year) registered a rise during the period under review coinciding with the consistent growth in savings deposits (8.3 percent in H1-CY13). As highlighted in chapter 1, the tilt in trend toward CASA was apparently an outcome of strategic marketing efforts of the banks for increasing non-remunerative low cost deposits pursuant to increase in minimum saving rate[27].

Continuous investment in short-term securities coupled with substantial growth in CASA deposits resulted in considerable improvement in up to 3 months maturity gap during H1-CY13 **(Figure 2.17).** Although lower than H2-CY12, 3 months to 1 year maturity GAP remained comfortable during H1-CY13 owing to growing investment in short-term Government securities of up to 12 months maturity. On the other hand, lack of long-term financing and growth in long-term deposits kept the maturity gap negative in over 1 year bucket during the period under review.

Fund based liquidity indicators remained steady…

As mentioned earlier, constrained liquidity conditions led to higher amount of interbank lending, which together with growth in Government securities, helped in improving the liquid assets during H1-CY13 **(Figure 2.18).** However, the steady increase in liquid assets was slightly overshadowed by the higher growth in deposits during H1-CY13, thus resulting in a decline of 71 bps in

[27] SBP decided that the minimum profit rate would be 6.0% p.a. on all Pak Rupee saving deposits with effect from May 01, 2012 vide BPRD Circular No. 1 of 2012.

Figure 2.20

Surplus liquidity of banking system

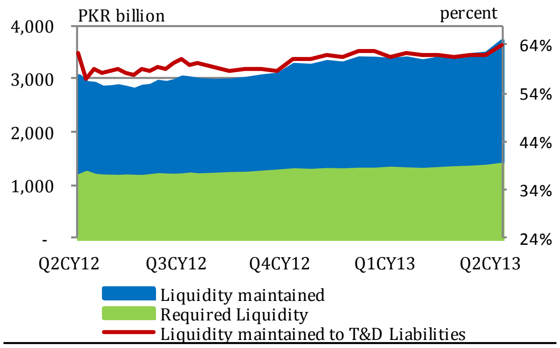
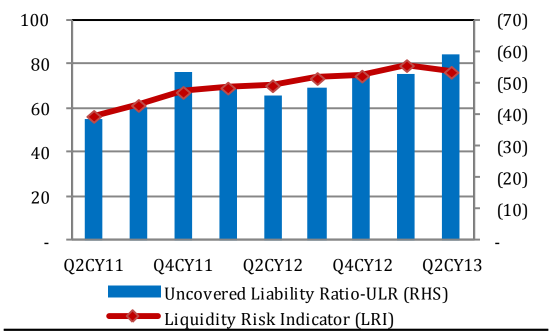


Figure 2.21

Funding Liquidity Risk Indicators (percent)



liquid assets to deposits ratio which stood at 63.7 percent. Given the significant decline in borrowings, the liquid assets as a percentage of total assets rose by 59 bps to 49.0 percent during the period under review **(Figure 2.19)**. Despite continued growth in deposits, surplus liquidity maintained by banks remained more than double the level of SLR of 24 percent **(Figure 2.20).** With decline in private sector credit, growth in deposits further pushed down the ADR by 4.1 percentage points to 48.1 percent-lowest almost in decade.

Uncovered Liability Ratio (ULR), which measures liquidity shortage at an institutional level, improved due to ample liquid assets. Similarly, Liquidity Risk Indicator (LRI), which takes into account short-term liquidity gap calculated for 30-day time horizon, also signified lower funding risk due to growing investment in Government securities. Both of these indicators further substantiated comfortable funding liquidity position of banks **(Figure 2.21)**.

Over the last few years, the currency to deposits ratio (CDR) has exhibited a seasonal trend with a slight drop of 52 bps in Jun CY13 to 26.3 percent during H1-CY13. The steady growth in deposits, coupled with the reduction in SBP's market interventions led to the aforementioned dip in CDR, which explained the market liquidity constraints faced by the banking sector during H1-CY13.

Banks would stand resilient towards various liquidity shocks

Banking sector would remain resilient in the face of different liquidity shocks. The results of stress tests on the banking sector reaffirms that system is satisfactorily placed to withstand liquidity shocks under different stress scenarios[28]. For instance, severe liquidity shocks of significant deposit withdrawal for consecutive five days would have negligible effect on the short-term liquidity of the banks. Further, the liquidity coverage ratio (LCR) of the banking system[29], remained well above the acceptable benchmark of 1, as defined under Basel III.

[28] For number of banks failing stress scenarios, see Annexure 1.15

[29] The Liquidity Coverage Ratio will require banks to have sufficient high quality liquid assets to survive a significant stress scenario lasting 30 calendar days.

Figure 2.22

Risk Weighted Assets (in percent)

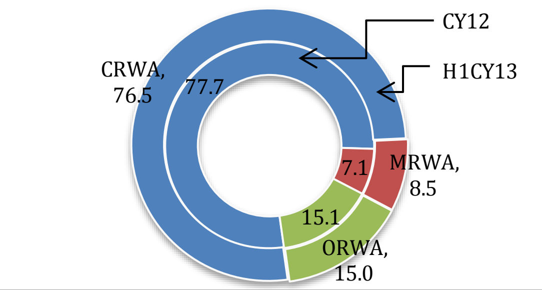


Figure 2.23

6M PKRV & Policy Rates and Volitility

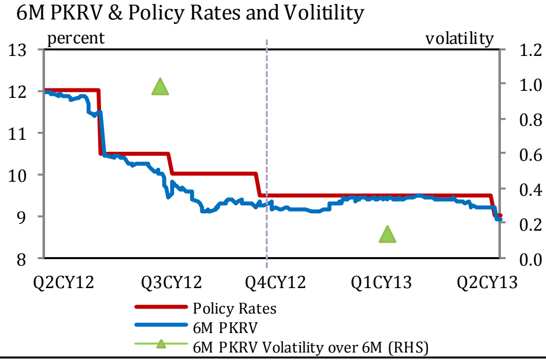


Figure 2.24

Yield Curves

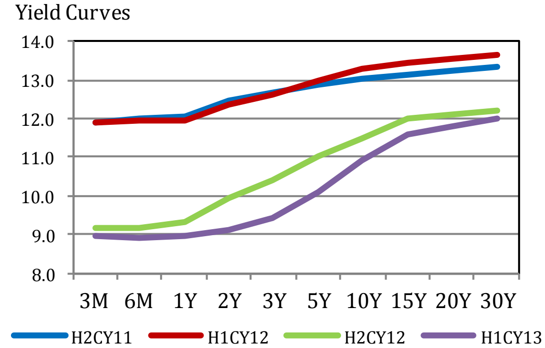
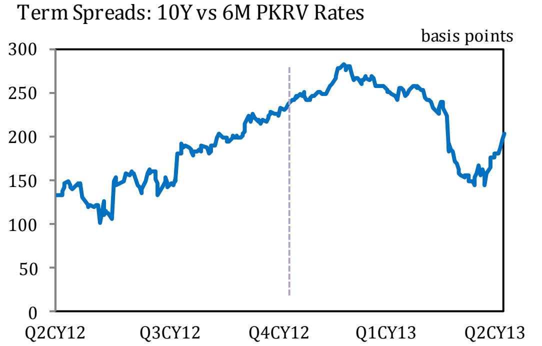


Figure 2.25

Term Spreads: 10Y vs 6M PKRV Rates



Market Risk

Market risk in the banking system remained manageable during H1-CY13 despite difficult economic environment and continuous strain in the external position. The increase in market risk was reflected by the increase in share of Market Risk Weighted Assets (MRWA)[30] to 8.5 percent (7 percent in H2-CY12) of the overall risk portfolio (**Figure 2.22**). Despite a rise in market risk exposures, SBP's prudent policies pertaining to limits on foreign exchange, equity exposures, and interest rate positions, were largely responsible for keeping the market risk under check.

Low policy rate further steepened the yield curve

After reducing the policy discount rate by 2.5 percent during H2-CY12, SBP maintained the rate at 9.5 percent till the mid of Jun CY13, when it was further cut down by 50 bps. Several factors such as decline in inflation rate, lackluster growth in credit to private sector, and lower GDP growth were the reasons behind keeping the policy rates low (**Figure 2.23**). Consequently, with the increased expectation of further policy rate change, coupled with higher government borrowings from SBP, the overnight rates kept hovering around the ceiling of the interest rate corridor, though they stayed less volatile during H1-CY13 as compared to H2-CY12.

Following the trend of previous half-year, the yield curve further shifted downwards, with more pronounced dip over the short-term to medium-term horizon during H1-CY13 (**Figure 2.24**). The 6-month Pakistan Revaluation Rates (PKRV) dropped by 28 basis points as against a drop of 55 basis points in 10 years PKRV yield, thus steepening the yield curve over the medium to long term. Consequently, the term spread between 6-month and 10Y PKRV yields decreased from 230 basis points in Dec CY12 to 203 basis points in Jun CY13 (**Figure 2.25**).

Net budgetary borrowing shifted from banking system to SBP

In the wake of persistent fiscal pressures, budgetary borrowing continued to remain high in H1-CY13. However, the focus of government borrowings shifted from banks to SBP. As a result, banks' investments in government papers decelerated in H1-CY13 compared to H2-CY12 (**Figure 2.26**). Given the low policy discount rate and constrained liquidity conditions, banks

[30] Risk weighted assets (RWAs) calculated based on Pillar I of Basel II Capital Accord.

Figure 2.26

Break-up of Investments

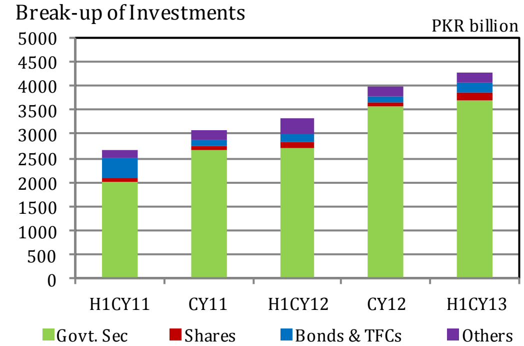


Figure 2.27

Gap (RSA-RSL) to Asset Ratio

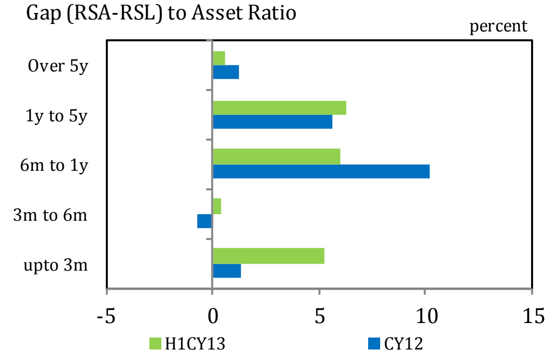


Figure 2.28

KSE 100 Index and Volitility

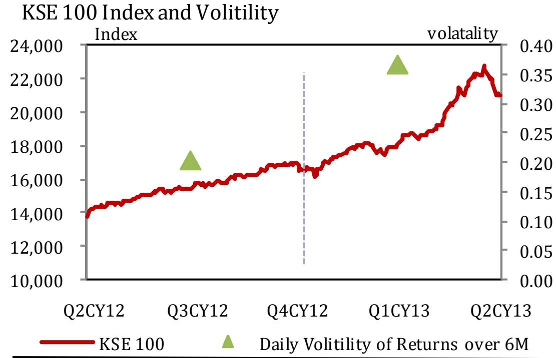
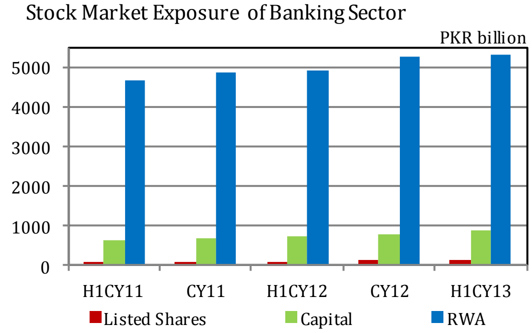


Figure 2.29

Stock Market Exposure of Banking Sector



continued to prefer AFS category for placing the major portion of their investments ensuring flexibility in managing short term liquidity needs. Similar to H2-CY12 (surplus of PKR 22.3 billion) this preference helped banks in earning surplus of PKR 27.1 billion during H1-CY13.

Positive re-pricing gaps, though within limits, may raise interest rate risk under an increasing interest rate scenario….

During H1-CY13, the re-pricing gap between the rate sensitive assets (RSA) and rate sensitive liabilities (RSL) continued to remain well within tolerable limit of +/- 10 percent (**Figure 2.27**). Not only that the gap reduced compared to H2-CY12, it also remained positive for the entire portfolio, which meant that the interest rate exposures of the banking system stayed within manageable limits. However, the positive gap across all maturity buckets mainly driven by fixed income securities, may pose revaluation risk under an increasing interest rate scenario.

KSE outperformed, bank's exposures stayed contained despite buoyant equity market

Following the trend of CY12, KSE index reached all time high during H1-CY13, posting 24.3 percent gain over H2-CY12 to cross 21,000 levels (16,905 as of end CY12). The index experienced a steep rise towards the end of the half year, which increased the volatility in the stock indices (**Figure 2.28**). Much of this rise coincided with the elections as market positive expectations surged due to smooth political transition. In line with the increased activity in the stock exchange, equity exposure of banks rose by 14.5 percent during H1-CY13. In addition, strong performance of the equity market allowed banks to book healthy gains on sale of quoted shares. However, regulatory limit[31] imposed on investment in equities ensured that the overall exposure of banks remained well contained, i.e., only 1.5 percent of total assets and 17.1 percent of the capital (**Figure 2.29**).

Rupee continued to depreciate though the Rupee-dollar volatility stayed lower

During H1-CY13, PKR posted a relatively stable outlook with a modest depreciation of 2.04 percent as compared to a depreciation of 2.65 percent in H2-CY12 (**Figure 2.30**). The PKR

[31] In terms of Regulation R-6 of the Prudential Regulations for Corporate/Commercial banking, "the total investments of banks in shares should not exceed 20% of their own equity."

Figure 2.30

Evolution of PKR/USD Exchange Rates

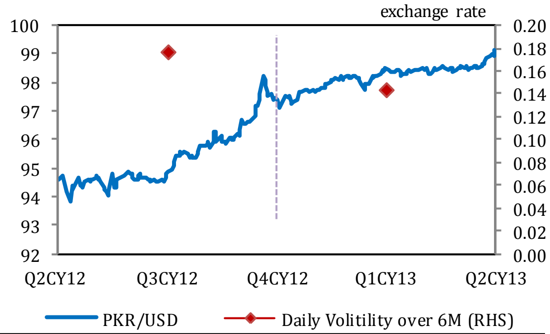
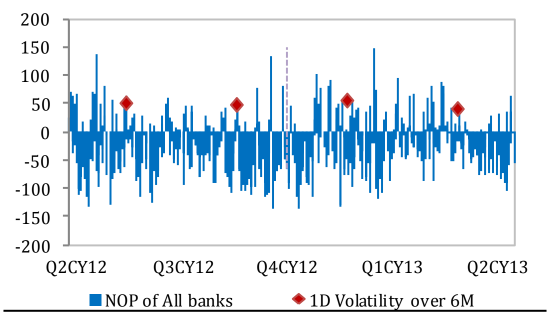


Figure 2.31

NOP of All Banks (USD million)



came under pressure in the interbank and Kerb markets and touched all-time low of 99.1 in Jun CY13; however, the volatility in the exchange rate remained lower than the previous half year. Low policy rate, mounting public debt, and current account deficit were the factors contributing towards depreciation of PKR. Moreover, the excessive demand and supply mismatches driven by uncertain foreign flows and negative sentiments prevailing in the market negatively affected the exchange rate parity.

Foreign currency positions largely remained short, though well contained

Owing to the higher foreign currency payments compared to inflows, the overall Net Open Position (NOP) of the banking system remained on the shorter side with declining volatility during H1-CY13. Though, the depreciating value of local currency exposes the banks to currency risk especially when they are running net short positions, the exposures were well within manageable bounds of around 2 percent of the bank's capital (**Figure 2.31**).