

Chapter 3 Profitability, Soundness and Resilience

The banking sector continued to sustain appreciable growth in earnings during the period under review, due to higher non-interest income and lower provisioning charge, though interest margins observed a deceleration. The accumulation of profits and slow growing credit risk weighted assets aided in maintaining the CAR high at 15.1 percent. With strong capital position, the banking sector is expected to remain resilient in various stress scenarios, though severe credit risk shock may bring a few banks under stress.

Figure 3.1

Profitability at glance

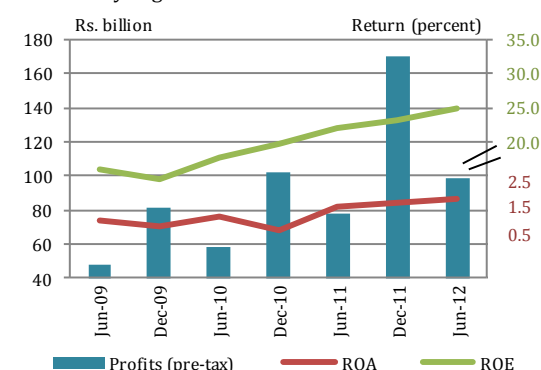
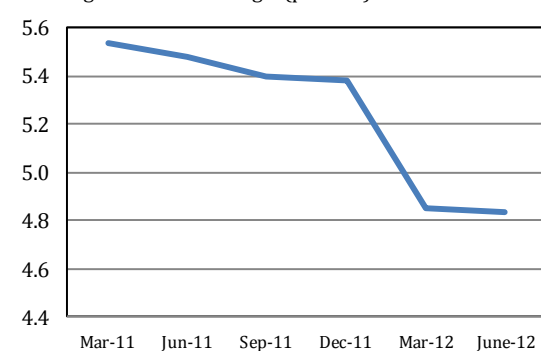


Table 3.1 Concentration of Earnings (percent share)

June-2012	Share	ROA	ROE	AU	PM	NIM
Top 5	70.9	3.9	50.6	12.1	30.9	8.4
Top 6 to 10	15.2	1.5	37.5	10.4	14.5	6.2
Top 11 to 20	11.2	1.4	22.6	11.1	12.4	6.0
Top 21 to 30	1.8	0.7	5.9	10.7	6.0	7.0
Public Sector	14.1	1.8	16.9	10.3	17.1	3.8
Local Private	81.5	2.5	27.9	10.9	22.8	5.0
Foreign	1.8	1.4	8.4	10.5	13.6	5.7
Specialized	2.6	3.4	81.1	13.5	25.2	11.0
All Banks	100	2.3	24.9	10.8	21.6	4.8

Figure 3.2

Declining Net Interest Margin (percent)



Healthy returns on Government securities, lower provisioning, and equity market gains enhanced profitability of the banking sector

The banking sector posted highest ever half-yearly pre-tax profit of PKR 98.6 billion in the first half of CY12. Overall banks' profitability showed a year on year growth of 27 percent on the back of healthy returns on growing volume of investment in Government securities, lower provisioning charge, improved corporate dividends, and gain on sale of securities. As a result, profitability indicators of the banking sector surpassed the level achieved in 2008; ROA increased to 2.3 percent while ROE reached 24.9 percent (**Figure 3.1**).

Concentration kept on declining

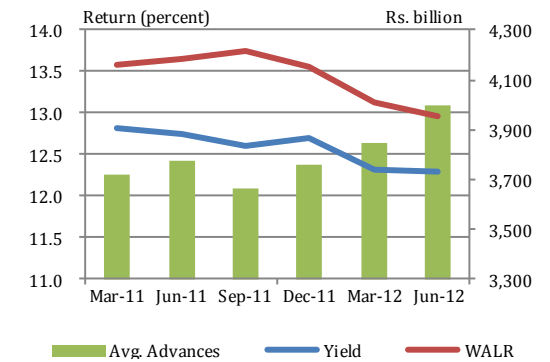
Over the last two years, the share of the large sized banks in profits declined, while share of medium and small sized banks improved. The trend continued in H1-CY12 as share of large five banks in pre-tax profit reduced further to 70.9 percent compared to 78.5 in H1-CY11 (101 percent in CY10), while that of middle tier and small sized banks (6-20) increased (**Table 3.1**). The share of public sector banks (PSBs) in total profits declined due to deceleration in interest margins. Foreign banks' profits also dipped due to consolidation of their business activities that lowered earnings as well as share in the industry profit.

Interest margins observed deceleration ...

Though profits surged over the half year, the Net Interest Margins (NIM) of banks fell to 4.8 percent from 5.4 percent in H1-CY11 (**Figure 3.2**). The decline in NIM partly resulted from slow-down in interest income from core banking activities due to interest rate cuts over the H2-CY11. The increased money

Figure 3.3

Declining yields on Advances



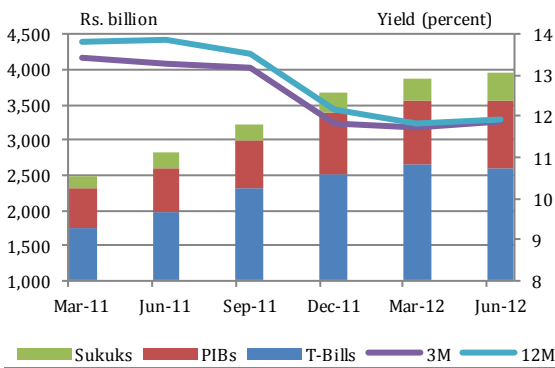
market borrowings and consequent increase in interest expense also added to decline in net interest income.

...as growth in net interest income slowed down

Traditionally the mark-up income³¹ derived from advances and investments stayed the main source of gross income of the banking sector. However, interest income pacified during the period under review as it grew by just 8.9 percent against increase of 15.6 percent in H1-CY11. A cumulative 200 bps decline in policy rate during the second half of the CY11 affected the market interest rates including yield on Government bonds, KIBOR and Weighted Average Lending Rates (WALR) (Figure 3.3).

Figure 3.4

Decreasing returns of Government Securities

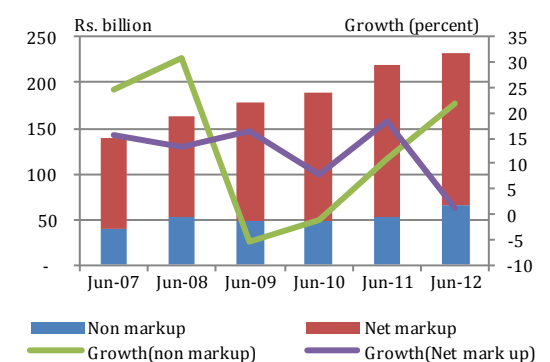


...and structure of markup income continued with shift from loans to investment income

The declining interest rates along with reduced lending to high margin private sector and growing exposure to low margin public sector led to overall deceleration in interest income and decline in income from advances. The rise in overall interest income mainly resulted from increase in returns on growing stock of investments in Government Securities, which boosted the overall share of investment income³² to 43 percent during H1-CY12 compared to 37 percent in Jun-11 (Figure 3.4).

Figure 3.5

Growing Non-markup Income



The interest expense, on the other hand, accelerated during H1-CY12. A look at the components of interest expense shows that growth in expense on deposits was volume based as Weighted Average Deposit Rate (WADR) dropped marginally. Additionally, surge in cost of borrowings due to increased activity in the repo market also added to overall expense.

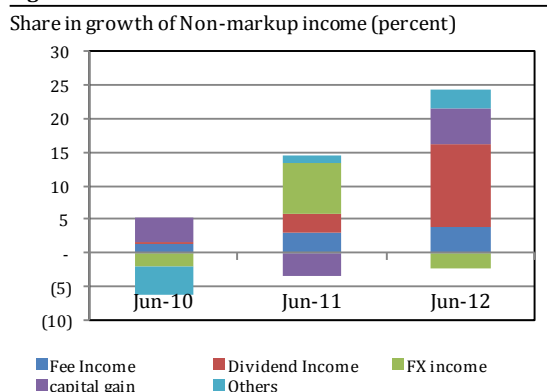
Improvement in overall profitability facilitated by healthy growth in non-markup income...

The surge in non-mark-up income provided for overall growth in gross income mainly due to improvement in the equity market indices and gain on sale of securities. Non-interest based income surged by 22 percent over the half year, which enhanced its share in gross income to 28 percent (Figure 3.5). The increase in investment in blue chip stocks paid off banks in form of higher

³¹ Net Markup income is defined as interest earned on advances and investments less interest expense on deposits and borrowings.

³² Investment income mainly comprised interest earned on Government securities.

Figure 3.6

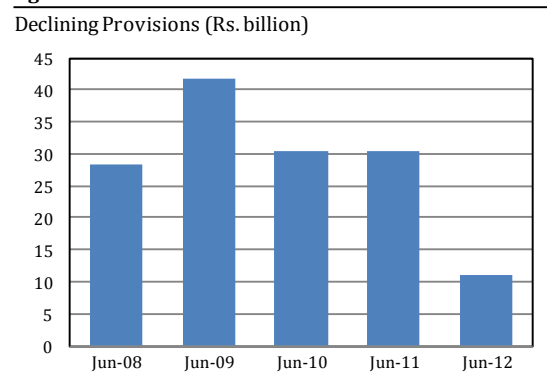


dividends and capital gains from inventory of quoted shares over the period under review. Similarly, declining interest rate environment incentivized banks to book substantial gain on sale of government securities. Although fee income marginally improved, yet reliance on income from foreign exchange (FX) transactions was pretty subdued in the period under review (**Figure 3.6**).

...and lowering of provisions charge

In addition to higher non-markup income, lower provisions charge also enhanced the overall profitability of the banking sector. In H1-CY12, provisions expense increased merely by Rs 11 billion compared to increase of Rs 30 billion in H1-CY11 (**Figure 3.7**). Although non-performing loans continued to grow, yet pace of provision growth relatively slow as majority of the infected portfolio was already classified into loss category. In addition as highlighted in chapter 2, the additional infected portfolio took the benefit of adequate collateral coverage, which led to lower provisions charge during first half of CY12. Further, FSV benefit of around Rs1.1 billion on collateral also contributed to low provisioning expense and consequent build up of profits.

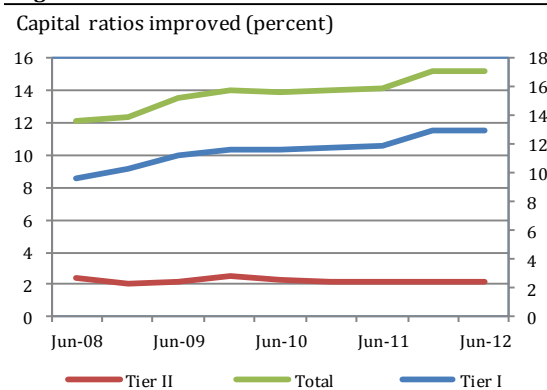
Figure 3.7



Solvency

Both risk based and non-risk based solvency indicators improved

Figure 3.8

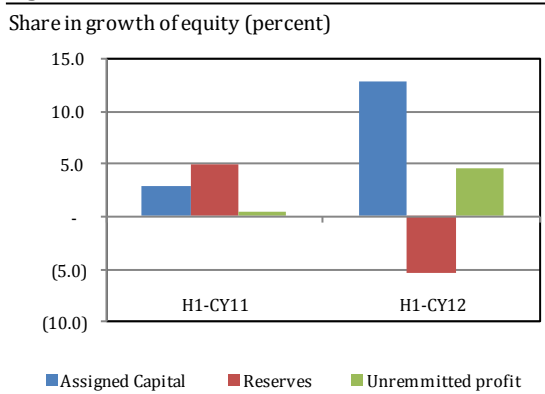


Solvency position of the banking system remained strong during H1-CY12. Rising profitability and slow growth in RWAs kept the Capital Adequacy Ratio (CAR) and Tier-I capital ratio unchanged at 15.1 percent and 13.0 percent respectively; well above the local benchmark³³ (**Figure 3.8**). Further, the leverage ratio³⁴ also stood at a comfortable level well above the Basel-III standard of three percent. Though most banks meet the CAR, some banks continued to face challenge in achieving the prescribed Minimum Capital Requirement (MCR).

³³ Banks are required to maintain minimum CAR of 10 percent.

³⁴ The leverage ratio is measured as the ratio of adjusted tier-I capital to adjusted on-balance sheet and off-balance sheet assets.

Figure 3.9



Improved profitability augmented the Tier-I capital

The Tier-I capital of banking system, comprising 86 percent of regulatory capital showed a growth of 2.5 percent in H1-CY12. This increase mainly came from healthy returns generated by the banking sector and consequent accumulation of un-appropriated profits. Improved profitability also allowed banks to announce stock dividends, which enhanced paid up capital of the banking sector by 2.1 percent, while facilitating some banks in meeting the MCR. All this progress toward equity growth indicates that bank management is relying heavily on internal profits to build capital buffer (**Figure 3.9**).

Credit Risk Weighted Assets (CRWA) increased significantly and shared most of the increase in RWA

Over the last three years, riskiness of asset mix has declined in line with the risk averse approach adopted by banks. The CRWA, which form more than 3/4th of the total RWA, persistently declined. The trend, however, reversed during H1-CY12 as most of the 2.73 percent growth in RWAs was contributed by CRWA.

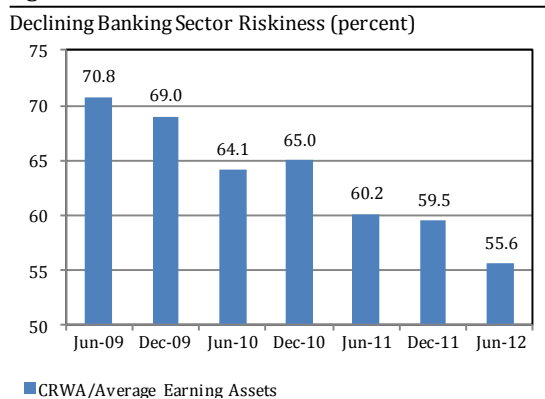
During H1-CY12, advances expanded by 6.6 percent, which led to 3.3 percent increase in CRWA of the banking sector compared to growth of 1.7 percent in corresponding period last year (**Table 3.2**). A further look at the composition of on-balance sheet exposures reveals that most of the risk-adjusted assets were contributed by the corporate portfolio³⁵ followed by the retail loans. However, declining flows to private sector, SMEs and consumer finance led to decline in share of risk-adjusted corporate and retail claims during H1-CY12. On the contrary, lending to PSEs increased considerably in H1-CY12 and so did the share of risky claims on PSEs³⁶.

Market Risk Weighted Assets (MRWA) on the other hand observed a marginal increase of 1.1 percent during H1-CY12 against 6.6 percent growth in H2-CY11. The slowdown despite increase in investments, resulted mainly from decline in RWAs under interest rate risk due to shift in the tenure of securities/ debt instruments to shorter maturities, which attract lower risk weights.

Table 3.2: CRWAs to Original Exposure

	CY11		Jun-12	
	Share in CRWA	CRWA to Original Exposure	Share in CRWA	CRWA to Original Exposure
Claims on GoP	-	-	-	-
Claims on PSEs	1.0	10.5	1.8	12.0
Claims on Banks	1.7	35.2	1.9	36.7
Claims on Corporates (excluding equity exposures)	44.9	82.7	44.7	81.6
Claims categorized as retail portfolio	9.4	67.2	8.9	66.1
Past due loans	5.3	99.5	7.0	108.5
Total On Balance Sheet Exposures	85.4	48.5	85.6	46.5
Total Off Balance Sheet Exposures	14.6	14.1	14.4	14.2

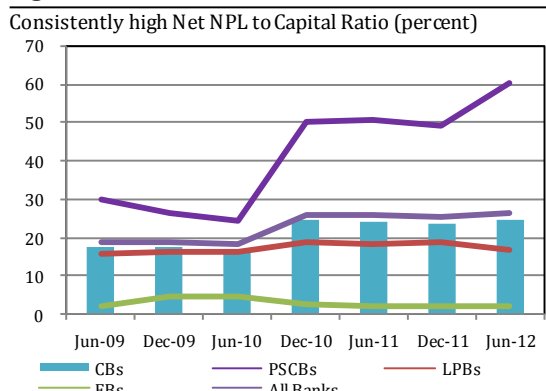
Figure 3.10



³⁵ This comes as no surprise as many corporate remained unrated and most of the collateral holdings do not qualify as eligible collateral under Basel II.

³⁶ PSEs are still unrated and thus attract higher risk weight leading to increase in risky claims on PSEs.

Figure 3.11



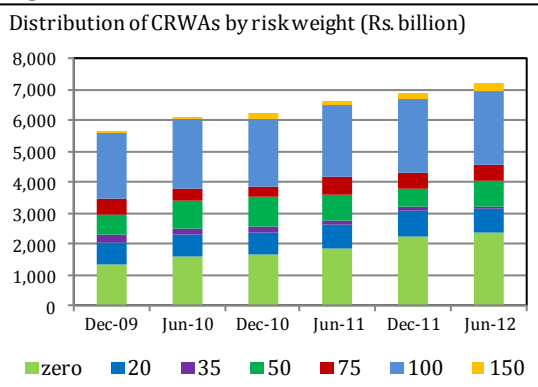
Riskiness of banking sector is declining over the period

Despite some growth in CRWA, the overall riskiness of the banking sector (CRWA to average earning assets) continued on the declining trend. The outcome was expected as major part of the 5.4 percent expansion in earning assets, over the half year, carry low risk weights. With a slow pace growth, share of CRWA as a percentage of average earning assets declined by 390 bps in H1-2012. This trend though healthy in short run, may compromise risk management capacity of the banking sector in future (Figure 3.10).

... While capital at risk of PSCBs continue to stay high and rising

Due to deterioration in asset quality, the risk to solvency increased over the half year. Net NPLs to Capital ratio-an indicator of fraction of banks' equity that could be impaired by loan losses, increased by 230 bps to 26.5 percent. The ratio worsened mainly due to decline in provisioning coverage. As most of the increase in NPLs took place in PSCBs, increase in the ratio was more profound in this category of banks; capital impairment ratio for PSCBs jumped by 10 percentage points to 60 percent indicating more than half of their capital at risk on account of uncovered NPLs (Figure 3.11). The realization of such an event has the tendency to adversely affect the solvency of the system.

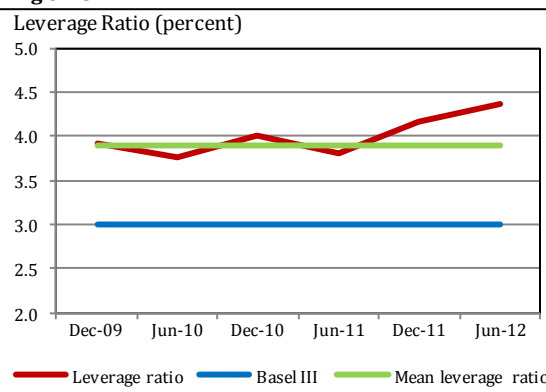
Fig 3.12



Rising exposure to unrated PSEs increased overall capital charge

Distribution of CRWA is the mirror image of banks' risk preference. Zero risk weighted asset after taking the highest share of 33 percent in last half year came down marginally by 25 basis points. On the other hand, share of assets having 100 percent risk weight (usually assigned to the advances extended towards unrated borrowers) continued to decline, an outcome of declining private sector credit. Share of assets with risk weight of 50 percent showed an increase of 300 bps to seven percent of the total CRWAs portfolio during first half of 2012 due to increase in exposure towards unrated public sector entities³⁷ (Figure 3.12).

Fig 3.13



³⁷ In case of public sector exposures, investment in Government securities is considered risk free and is assigned zero credit risk weight; moreover, majority of the PSEs exposures carry low risk weights ranging from 0 to 50 percent. On the contrary, private sector exposures are assigned risk weights between 20 and 150 percent, while in practice majority of these falls under the 100 percent category.

Box A: Credit Risk Sensitivity Shocks
C1: 10% of performing loans become non-performing, 50% of substandard loans downgrade to doubtful, 50% of doubtful to loss.
C2: All NPLs under substandard downgrade to doubtful and all doubtful downgrade to loss.
C3: Default of top 3 borrowers of the banks.
C4: Default of top 3 borrowing Groups of the banks.
C5: Increase in provisions against NPLs equivalent to 50% of Net NPLs.
C6: Increase in NPLs to Loans Ratio equivalent to the maximum quarterly increase in NPLs to Loans Ratio of the individual banks during the last 5 years.
C7: Increase in NPLs of all banks by 21% which is equivalent to the maximum quarterly increase in NPLs of the banking system during the last 5 years (Mar-09).
C8: Increase in NPLs to Loans Ratio of Textile Sector of the banks equivalent to the maximum quarterly increase in these banks during the last 3 years.
C9: Increase in NPLs to Loans Ratio of Consumer Sector of the banks equivalent to the maximum quarterly increase in these banks during the last 3 years.
C10: Increase in NPLs to Loans Ratio of Agriculture & SME Sectors of the banks equivalent to the maximum quarterly increase in these banks during the last 4 years.

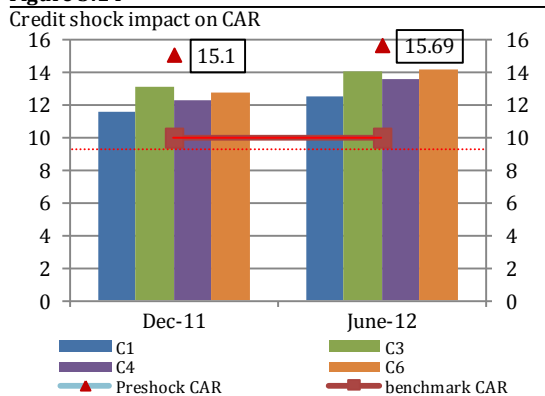
Box B: Market Risk Sensitivity Shocks
IR1: Parallel upward shift in the yield curve - increase in interest rates by 300 basis points along all the maturities.
IR2: Upward shift coupled with steepening of the yield curve by increasing the interest rates along 3m, 6m, 1y, 3y, 5y and 10y maturities equivalent to the maximum quarterly increase experienced during the last 3 years.
ER3: Appreciation of Pak Rupee exchange rate by 3.2%
EQ1: Fall in general equity prices by 41.4%
EQ2: Fall in general equity prices by 50%.

A higher capital base above the regulatory requirements provides banks with sufficient cushion against unexpected idiosyncratic shocks and severe macroeconomic conditions. As a part of its policy to strengthen common equity base of banks, the SBP over the period has enhanced the MCR requirement gradually. The outcome of this approach is obvious in comfortable CAR of the banking sector and majority of the individual banks. As of end June 2012, only five banks lagged behind the required CAR of 10 percent, while CAR of 22 banks stood above 15 percent. Banks falling short of CAR represent only 3.4 percent of total asset and as such do not pose any serious concern to the solvency of the banking sector.

Banking system leverage is well within the prescribed band

To supplement the risk based CAR, a backstop measure of Leverage ratio has been introduced by BIS under the Basel III framework. The ratio can be used as a countercyclical tool by setting dynamic limits during boom and downturns. The leverage ratio for banking sector of Pakistan continued to rise at the back of rising equity levels and less securitized exposure. On aggregate basis, leverage ratio stood at 4.4 percent in H1-CY12, much higher than the required minimum of 3 percent³⁸. (Figure 3.13). With a comfortable level of this non-risk based indicator and potential for growth in the economy, industry enjoys enough buffer to further increase its leverage in the future.

Figure 3.14



Resilience of the banking system

Strong solvency position ensured resilience of the banking sector against severe stress shocks.

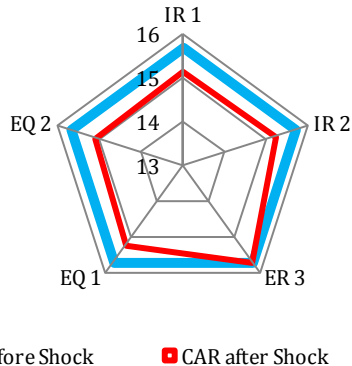
With an industry CAR of 15.1 percent-much above the regulatory requirements, impact of shocks somehow subsided in H1-2012 as compared to results of H2-CY11. The single factor sensitivity stress shocks on the credit, market, liquidity and contagion risk on the banking sector reaffirms that with the exception of a few banks, system is satisfactorily placed to withstand the stress events³⁹.

³⁸http://www.moodysanalytics.com/13A15DC2-93E3-4DF5-BA6D-FE54B44527B8/FinalDownload/DownloadId-4F0530E8B155687D24AF246695F88296/13A15DC2-93E3-4DF5-BA6D-FE54B44527B8/~/_media/Insight/Regulatory/Basel-III/Thought-Leadership/2012/2012-19-01-MA-Basel-III-FAQs.ashx

³⁹ For number of banks failing stress scenarios, see Annexure 1.15.

Figure 3.15

Market risk shocks



The impact of various credit shocks was lower than previous half year on aggregate basis (**Figure 3.14**) except for few banks already short of benchmark CAR of 10 percent. The downgrading of loan classification (C-1) impacted CAR the most in both periods followed by concentration (C-4) and rising infection ratio (C-6). In an environment of rising loan losses, banks need to improve on their risk management practices. In addition to that, increasing loan concentration to large corporate (C-4) needs to be effectively monitored to avoid any systemic implications.

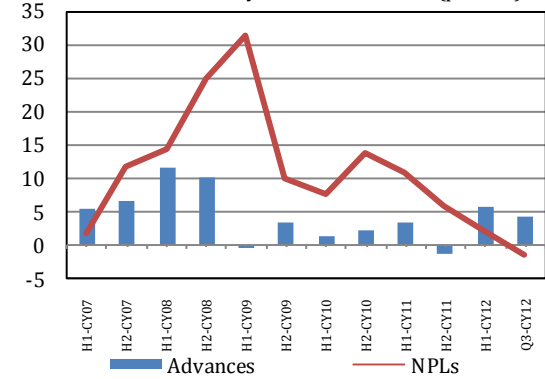
In case of market risk that constitutes only 6.4 percent of banking sectors' risk profile, the market risk sensitivity stress shocks did not affect the banks' solvency profile as much as the credit risk shocks. The interest rate and equity price shocks have varying impact on CAR between 47 to 60 bps, while the exchange rate shocks had negligible impact on the CAR due to banks being net long in FX positions (**Figure 3.15**).

Macro Stress Testing of Credit Risk-Forecasts for H2-CY12

The Non-Performing loans to gross loans ratio (GNPLR)⁴⁰, of banking system stood at 15.9 percent during H1-CY12, compared to 15.7 percent in H2-CY11. The deceleration in GNPLR was primarily supported by slow down in fresh NPLs and moderate credit growth (**Figure 3.16**).

Figure 3.16

Growth rates of Half Yearly Advances and NPLs (percent)



Though there was moderate improvement in key economic indicators, overall growth remained low. High fiscal deficit, drying up foreign capital inflows and energy shortages directly curtailed production activities, while law and order situation and political uncertainty also impacted growth prospects (**Figure 3.17**). Macro economy does face challenges in the short term, though the medium term outlook would depend on the effectiveness of policy response. Nonetheless, due to a fall in interest rate and expected pick up of seasonal credit toward end of 2012, GNPLR is expected to decline in the second half of 2012.

Given above theoretical underpinnings and using Blaschke et al (2001) approach, CPV model⁴¹ has been employed to obtain baseline forecast for H2-CY12 GNPLR as elaborated below.

Figure 3.17a

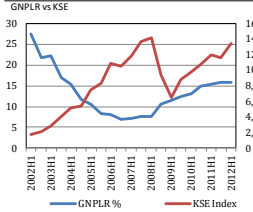


Figure 3.17b

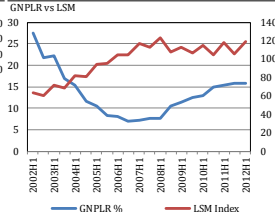


Figure 3.17c

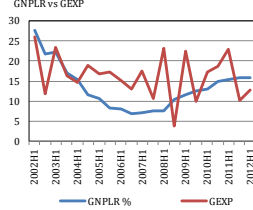
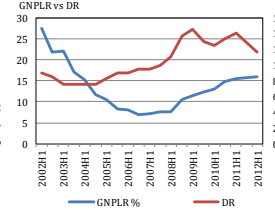


Figure 3.17d

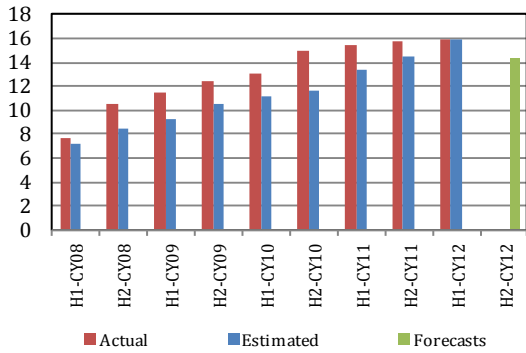


⁴⁰ Blaschke's et al (2001) use of asset quality indicator like GNPLR for determining health of financial system is based on the assumption that NPLR can serve as a good proxy for defaults rates or bankruptcies (where data is not easily available) since it is impacted by developments in the macroeconomic environment.

⁴¹ The reasons for using the CPV model are (a) ease in implementation and (b) its worldwide acceptability among financial supervisory authorities.

Figure 3.18

Forecasts for H2-CY12 (percent)



The half-yearly CPV model estimate GNPLR as a function of large scale manufacturing index (LSM), growth in Exports (GEXP), KSE-100 index and discount rate (DR). This exercise uses half-yearly time series data ranging from H1-CY97-H1-CY12. To project baseline forecasts for GNPLR, macro forecasts for LSM, GEXP, and DR are estimated using ARIMA⁴² models. Results from the CPV model suggest that under the baseline scenario, the GNPLR for H2-CY12 is projected to be 14.3 percent, lower than 15.9 percent recorded for H1 2012. Forecast seems reasonable keeping in view recent developments in economy such as lowering of discount rate and increasing KSE-100 index. Scenario based analysis suggest GNPLR would be at 14.4 percent for H2-CY12⁴³ (Figure 3.18).

⁴² ARIMA are Auto regressive integrated moving average models estimated from variables own lags and error terms.

⁴³ For judgment based baseline scenario, macro variables are assumed at their June 2012 level. Scenario assumes that LSM is 118.6 percent, GEXP is -1.7 percent, DR is 10 percent, and KSE is 15138 index points during H12012.