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Bangladesh Bank

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Governor's Message

Financial stability concerns came to the forefront of attention and priority in the aftermath of the global financial crisis (renamed lately as the North Atlantic financial crisis), annual financial stability reports are now in the routine publications menu of all central banks. This is the fourth issue of Bangladesh Bank's (BB's) annual stability report on Bangladesh's financial sector.

Bangladesh's transition to fully market based interest rate and exchange rate regime for Taka is relatively recent, the economy's external sector openness is limited and carefully managed. Bank and non-bank financial intermediaries licensed and supervised by Bangladesh Bank (BB) have not thus far faced any significant systemic stability concern, even at the height of the global financial crisis. BB's financial stability reports focusing mainly on the BB-supervised market segments therefore make rather bland reading, although the contents are gradually gaining in depth and coverage (for instance, this issue reviews trends of 'stressed' advances including restructured loans besides the usual non performing loans).

There are however areas of potential systemic stability concern like the typically more volatile capital market segment, the insurance segment with its incipient regulatory framework, the inclusive financing initiatives of the microcredit segment; besides gaps and inadequacies in the BB-supervised market segment itself such as in access to longer term savings and borrowing options, in securitization and secondary trading of corporate debts, in speedy resolution of debt distresses, and in hedging products to cover various market risks. Vulnerability to potential instabilities from such areas will heighten as our financial sector opens up and integrates faster with the global financial system to attract foreign savings in the massive volumes needed to realize the nation's growth and development visions. BB aims therefore at rapidly building up strength in our financial sector to withstand destabilizing shocks from fuller

external sector openness, and capacity buildup within the BB for effective supervision of a fully open financial sector. Future issues of the financial stability report will accordingly need to be increasingly more full bodied, more comprehensive. I commend the dedication and diligence that the authors and editors of the Financial Stability Report have demonstrated thus far in their tasks, and I look forward to their responding adequately to the excellence challenges awaiting ahead for them.

Atiur Rahman, PhD
Governor

Deputy Governor's Message

Financial stability is difficult to define and even more difficult to measure. It depends on stable macroeconomic conditions, effective regulatory and supervisory systems, and a robust market infrastructure. Regulatory governance underpins the regulatory and supervisory systems and market infrastructure most. Good regulatory governance, starting with corporate governance of the financial institutions themselves and carrying over to the regulatory authority, affects the capacity to formulate, implement, and enforce financial policies and regulations, and makes refinements to the financial infrastructure in response to changes in the structure of the financial system and behavior of the stakeholders. Thus, the quality of regulatory governance indeed matters for the soundness of the banking system.

The financial landscape in Bangladesh is changing day by day, and the role of intermediation by financial institutions is fraught with increasing complexity. Contemporary data on the financial system reveals its degree of stability and allows policymakers of this country with a measure of policy space to confidently place more emphasis on economic growth. However, recent structural changes in the financial system, as well as the complex relationship of financial intermediaries in different jurisdictions, also caution the policymakers that they must address any system-wide risk. Banks in many countries face some challenges in protecting themselves against a possible future downturn as system-wide risk increases during the period of good times. Moreover, frequent changes in the regulatory requirements without the consideration of economic cycle/countercyclical policies may exacerbate the instability of the financial system. Keeping these essentials in mind, we are continually evaluating the effectiveness of our policy tools as well as the volatility of the market situation.

Disruption in the financial sector can have severe adverse effects on economic activity and even on political structures. Maintaining stability is thus a key objective to financial authorities. Our financial regulations are mostly anchored in a risk-based micro-prudential approach where banks are supervised on an individual basis. It is observed that these conventional tools are no longer effective in addressing the system-wide risks. A microprudential dimension is designed to limit distress of individual banks, while a

macroprudential dimension is designed to limit system-wide financial distress. Bangladesh Bank (BB), in line with the international best practices, is planning to implement a wide range of macroprudential tools that are expected to play a significant role in addressing the system-wide risks that could pose a threat to the stability of the financial system.

With a view to ensuring sound contingency arrangements for the banking sector, BB has outlined a comprehensive roadmap for developing frameworks of contingency planning which feature a step-by-step approach of actions to be taken in the early stages of a crisis, to ultimately combat and even reverse the signs of any sort of systemic banking crisis. Those frameworks are concerned with preventive actions and crisis resolution tools and initial steps of these initiatives are aimed at helping banks in solving their problems and improving their quality of banking operations. However, if banks are reluctant to take these steps, BB is entrusted with the responsibility of maintaining public confidence in the banking system at any cost. To move beyond the traditional banking supervision mechanism, we are leading the way towards coordinated supervision with the participation of other regulators of the financial markets, so that one policy taken by a regulator will not hamper the effectiveness of another regulator. What is more, we believe that stability will not be achieved through prudential policies and market discipline alone. It requires contributions from monetary and fiscal policies as well. Though it sounds reasonable in theory, in practice it may possess different challenges if all financial sector regulatory authorities do not work in harmony.

The increasing complexity of the financial system over the years has necessitated BB to adopt some supervisory tools such as the Interbank Transaction Matrix (ITM) and the Financial Projection Model (FPM) at the end of 2013 and the beginning of 2014 respectively in order to address the vulnerabilities of the individual bank/financial institution as well as the entire financial system, to ensure its soundness and resilience. Meanwhile, BB has developed the framework for identifying and dealing with the Domestic Systemically Important Banks (D-SIBs) in its jurisdiction due to the underlying assumption that the impact of the failure of a D-SIB would be significantly greater than that of a non-systemic institution. Moreover, BB is going to develop and adopt a HEAT map (Health Assessment Tool) in its early warning system soon for assessing the banks' health on a standalone basis and for the system as a whole.

This Financial Stability Report includes some new areas and contemporary issues which are expected to meet the stakeholders' expectations.

Finally, I would like to thank all of my colleagues of the Financial Stability Department who have contributed in the preparation of the report.

Shitangshu Kumar Sur Chowdhury
Deputy Governor

Executive Summary

In 2013, Bangladesh's economy maintained a stable and satisfactory growth momentum despite facing some sorts of turbulances, infrastructural inadequacies impeding foreign direct investment growth, and only a moderate recovery in the global economy. The economy showed remarkable resilience, holding on to a six percent real GDP growth trend, with CPI inflation around seven and a half percent, a narrowing trade deficit, healthy BOP current account surplus and foreign exchange reserves covering around six months' import obligations, healthy inflows of workers' remittances, and a stable exchange rate.

The declining growth in the economy from 2012 can largely be attributed to the falling rate of growth in both agriculture and industrial sectors. It is remarkable that Bangladesh has made notable improvements in all aspects of development. Inflationary pressures were at a tolerable level due to the adoption of a contractionary monetary policy. The monetary stance of BB for January-June, 2013 was designed to ensure that the credit envelope was sufficient for productive investments to support the attainment of the government's real GDP growth target while keeping it consistent with the desired average inflation rate for the year. The monetary stance for July-December, 2013 targeted a monetary growth path which aimed to bring the average inflation rate down to 7.0 percent, while ensuring that credit growth was sufficient to stimulate inclusive economic growth.

Higher and stable export growth took place compared with the growth of imports. The balance of payments recorded an overall surplus during this year though import-export growth rate was low due to export of low value-added industrial products and import of relatively higher value-added items. The imports of Bangladesh, especially technological products and industrial raw materials which are important for sustaining the production process, have been declining substantially which, combined with an increasing inflow of remittances, has enabled the country to achieve a current account surplus. The surplus on current account contributed to an appreciation of the local currency against the US dollar, leading to a loss in export competitiveness. The huge surplus in the current account balance, combined with a significant rise in both FDI (net) and other investment with portfolio investment in the financial account, contributed to substantial growth in the surplus in overall balance.

Recent macroeconomic performance has been broadly satisfactory, as noted by many international agencies including the rating agencies S&P and Moody's. Besides,

Bangladesh has experienced a steady buildup in foreign exchange reserves since early 2012, reaching USD 20 billion currently through managing external pressures as well as fiscal policy in a prudent manner. The end result is that macro-stability has underpinned growth performance. It is to mention that official foreign aid disbursement increased notably though no commodity aid was received. Total credit to the Government (gross) by the banking system increased largely which might have created strain on the lending capacity of scheduled banks to the private sectors.

The banking sector demonstrated a considerable progress amid political turbulence though loans and advances decreased due to reduced business confidence. A low level of demand for credit by the private and public sector is manifested in the improving situation of liquidity of the banking sector. Higher availability of liquid funds of banks also brought down the advance-deposit (ADR) ratios of many banks. Reported asset quality of the banking system improved because of a somewhat lenient loan rescheduling standard issued by BB, the performance of the new banks, and a cautious approach taken by the banks in distributing new loans. The turnover in the Repo market decreased, which is another indication of adequate liquidity in the banking system. Due to a more lenient rescheduling stance, a notable portion of classified loans was declassified, ultimately helping to show a more impressive performance of the banking sector. It is remarkable that stressed advances[1] recorded a slight improvement; however, nearly 20 percent of the banks had a stressed advance ratio of more than 20 percent, implying that these banks are more vulnerable to credit risk. The deposit structure showed a greater reliance on term deposits that contributed to financial stability. A well-diversified deposit base in the banking sector indicates a sign of resilience in the system.

Net interest margin of the banks declined, attributable to changes in composition of gross earning assets, especially the reduction in loans and advances and increase in safe liquid investments. The regulatory capital position improved; the aggregate capital adequacy ratio increased by 100 basis points during this year compared with that of the previous year. The free capital of banks during the last couple of years was in a rising trend, indicating that the amount of capital available to absorb losses was in an increasing trend. Mixed situations were also evident in banks' solvency. The new banks had the highest solvency ratio among all the banks attributable to relatively higher equity capital in comparison with their asset base.

[1] Total of gross non-performing assets (NPA) and restructured advances.

Overseas exposures of Bangladeshi banks were insignificant. The total assets of overseas branches of Bangladeshi banks were only a minor portion of total industry assets. The aggregate net profit of the overseas branches of Bangladeshi banks during the year was moderately higher than that of the previous year.

Shari'ah based banks in the banking sector demonstrated a modest growth in 2013 in terms of total assets, total deposits, total investments and advances. However, net income of the Islamic banks recorded a moderate drop in the year compared with a huge positive growth in last year. Although the Islamic banking industry has been growing faster than the conventional banks, Shari'ah based banks still occupy a minor proportion, around one-fifth, of the total banking sector. Islamic banks' profitability was lower compared with the overall banking industry. However, classified investments to total capital and to total investment for Islamic banks were also much lower than the same for the conventional banks, indicating better investment management by the Islamic banks. The Islamic banking industry also recorded a higher capital ratio.

The banking sector continued to demonstrate a mixed resilience. Sensitivity analysis on the banking sectors' credit portfolio revealed that the banking sector was less resilient when different credit shocks were applied. However, the individual banks and the banking system as a whole were resilient against specified liquidity stress scenarios. The banking industry was also found to be fairly resilient in the face of various market risk shocks.

The NBFI sector registered a positive and notable growth, though the asset quality deteriorated. Due to a worsening of asset portfolio quality, capital ratios for the NBFIs slightly decreased compared with that of the previous year, due to the disproportionate increase of risk-weighted assets compared with total eligible capital. NBFIs' profitability, however, increased. From a stress testing point of view, a good number of NBFIs warranted supervisory concern.

Some favorable developments took place in the capital market. In 2013, the Dhaka Stock Exchange (DSE) and the Chittagong Stock Exchange (CSE) showed an improvement in terms of index movement and trade volume, though both remained volatile. There were also some positive indications of improvement in the capital market scenarios, helping the overall financial market towards a stable environment. Market capitalization and liquidity in the market improved, showing increasing confidence of the investors. The aggregate market price-earnings ratio (P/E) is still lower than the long-term average, although the market became stable in the latter part of 2013.

Mixed developments were evidenced in the foreign exchange market. During the year, the foreign exchange (FX) market demonstrated resilience with low volatility. The inter-bank FX trade volume decreased moderately compared with the previous year.

At the end, significant developments in the financial system took place during the year. New processes and tools including an Agent Banking Framework, Coordinated Supervision Framework, a liquidity monitoring tool named 'Interbank Transaction Matrix', green banking guidelines for the NBFIs, a base rate monitoring system for NBFIs, a 'School Banking' program under financial inclusion, an 'Integrated Supervision System' (ISS) and a strengthening of the monitoring and supervision strategies by BB for the four state-owned commercial banks were introduced. Moreover, the DSE and CSE were demutualized by Bangladesh Securities and Exchange Commission.

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Acronyms

AD	Authorized Dealer Bank Branches
BACH	Bangladesh Automated Clearing House
BB	Bangladesh Bank
BBS	Bangladesh Bureau of Statistics
BCBS	Basel Committee on Banking Supervision
BDT	Bangladeshi Taka
BOP	Balance of Payment
CAR	Capital Adequacy Ratio
CBS	Core Banking Solution
CDBL	Central Depository Bangladesh Limited
CDR	Credit Deposit Ratio
CPI	Consumer Price Index
CR	Credit Risk
CRC	Credit Rating Company
CRR	Cash Reserve Requirement
CSE	Chittagong Stock Exchange
CY	Calendar Year
DFID	Department for International Development (UK)
DSE	Dhaka Stock Exchange
ECAI	External Credit Assessment Institutions
EDW	Enterprise Data Warehouse
FC	Foreign Currency
FDD	Foreign Demand Draft
FI	Financial Institution
FX	Foreign Exchange
FY	Fiscal Year
GDP	Gross Domestic Product
HBFC	House Building Finance Corporation
HHI	Herfindahl-Hirschman Index
HV	High Value
ICB	Investment Corporation of Bangladesh
IDR	Investment Deposit Ratio (for Islamic banks)
IMF	International Monetary Fund
IRR	Interest Rate Risk
IT	Information Technology
L/C	Letter of Credit

M2	Broad Money
MCR	Minimum Capital Requirement
MR	Market Risk
MT	Mail Transfer
NBFI	Non-Bank Financial Institutions
NDA	Net Domestic Assets
NFA	Net Foreign Assets
NFCD	Non-Resident Foreign Currency Deposit Accounts
NII	Net Interest Income
NIM	Net Interest Margin
NPA	Non-Performing Assets
NPL	Non-Performing Loan
NPM	Net Profit Margin (for Islamic banks)
NSD	National Savings Directorate
OD	Over Draft
OR	Operational Risk
OTC	Over the Counter
P/E	Price Earnings
RBCA	Risk Based Capital Adequacy
RBI	Reserve Bank of India
REER	Real Effective Exchange Rate
RFCD	Resident Foreign Currency Deposit Accounts
RMU	Risk Management Unit
ROA	Return on Assets
ROE	Return on Equity
RV	Regular Value
RWA	Risk Weighted Assets
SBP	State Bank of Pakistan
SEC	Securities & Exchange Commission
SME	Small and Medium Enterprise
SLR	Statutory Liquidity Requirements
T-bill	Treasury Bill
TT	Telegraphic Transfer
USD	United States Dollar

Chapter 1

Overview

Bangladesh economy continued to demonstrate a satisfactory growth. Amid very challenging domestic and global economic environment, Bangladesh achieved a notable economic growth[2] during FY13. According to the BBS's[3] provisional estimate, the nominal and real GDP growths of the country in FY13 were 13.1 percent and 6.0 percent respectively. The expansion of the economy during the fiscal year was broad-based, registering positive growth by all sectors and sub-sectors of the economy.

Inflationary pressures were at tolerable level. The CPI inflation showed a downward trend in FY13. The average inflation on 12-month average basis (base: FY96=100) decreased from 10.6 percent in June 2012 to 7.7 percent in June 2013. Moreover, according to the new base (FY06=100) the 12-month average CPI inflation rose 0.7 percentage point at end December 2013 from 6.8 percent at end June 2013. It is mentionable that the South Asian countries, particularly SAARC countries, recorded lower inflation during FY13, except India and Sri Lanka which showed double digit inflation.

Higher export growth took place compared with import growth. Exports grew nearly 12 percent in FY13 over the same period of FY12. Apparels continued to occupy an overwhelming share of the export basket. A substantial growth of exports of footwear, leather and leather products, woven garments and petroleum by-products contributed to an increase in the growth of merchandise exports. On the other hand, merchandise imports (fob) increased by 1.9 percent in FY13 from that of FY12. Imports (fob) as a percentage of GDP decreased by 2.8 percentage points in FY13 from 28.7 percent recorded in FY12.

Balance of Payments recorded an overall surplus. The trade deficit decreased moderately in FY13 with respect to the position of the previous year owing to the relatively larger expansion in export earnings compared with the slight increase in import expenditure. The deficit in the services account, however, widened slightly and the deficit in the income accounts widened moderately. Current transfers increased notably in comparison to that of FY12, thanks to a hefty 12.1 percent rise in workers' remittances. Besides, the current account surplus recorded a great improvement

[2] Calculated on a financial year basis.

[3] Bangladesh Bureau of Statistics

over the deficit that took place in FY12. The current account balance as a percentage of GDP rose by 1.5 percentage points from 0.4 percentage recorded in FY12. The huge current account surplus and the higher financial inflow led the overall balance to record a surplus in FY13. The huge surplus in the current account balance, combined with a significant rise in both FDI (net) and other investment with portfolio investment in the financial account, contributed to substantial growth in the surplus in overall balance.

International reserves attained a remarkable status. Despite the worries about the debt crisis and austerity plans of the euro-zone, and downgrading of sovereign rating of a number of euro-zone economies as well as highly reputed commercial banks by major rating agencies, BB was able to uplift its foreign exchange reserves. As at end-December 2013, gross international reserves stood at USD 18.1 billion, which was sufficient to cover nearly six months' import payments.

Official foreign aid disbursement increased notably. Total official foreign aid disbursement increased notably in FY13 with respect to that in FY12. Project assistance also increased significantly. However, no commodity aid was received as in the preceding year. Total outstanding official external debt as of 30 June 2013 stood at 18.0 percent of GDP against 19.0 percent of GDP as of 30 June 2012. The debt-service ratio as percentage of exports was 4.1 percent in FY13.

Broad money growth was lower and domestic credit declined. Broad money (M2) growth in FY13 was marginally lower than the growth recorded in FY12, driven by higher growth in net foreign assets (NFA). The growth in domestic credit declined by 8.3 percentage points in FY13 from 19.2 percent growth recorded in FY12 attributable to significantly slower growth in private sector credit. Growth of private sector credit declined by 8.9 percentage points in FY13 from 19.7 percent growth in FY12 as the desire for credit was hindered by uncertainty faced by general investors. For all of FY13 credit to the public sector (including government) from the banking system recorded 11.1 percent growth. In contrast, the growth in NFA increased by 29.3 percentage points from 21.0 percent growth target under the program for FY13. The money multiplier slightly increased in FY13 compared with 5.3 in FY12, which explains the higher growth in board money despite the subdued growth in reserve money.

Monetary stance was to reduce inflationary pressures. The monetary stance of BB for January-June, 2013 was designed to ensure that the credit envelope was sufficient for productive investments to support the attainment of the government's FY13 real GDP growth target, while keeping it consistent with the targeted average inflation rate for FY13. BB reduced all repo rates by 50 basis points taking into account the risks to

output growth arising from uncertainties around the global economy. Besides, BB committed to bringing inflation down further, and also to avoid asset price bubbles, and as such continued to encourage banks to use the space for private sector growth for productive and non speculative purposes.

The monetary stance for July-December, 2013 targeted a monetary growth path which aimed to bring average inflation down to 7.0 percent, while ensuring that credit growth was sufficient to stimulate inclusive economic growth. This monetary policy stance also aimed to preserve the country's external sector stability and continued to support a market-based exchange rate while pursuing aquest of avoiding excessive foreign exchange rate volatility.

Changes brought in reserve requirements. In FY13, BB instructed the commercial banks to maintain CRR and SLR separately with effect from February 01, 2014, keeping the prevailing requirements unchanged. Under the new rules, the excess over CRR (currently 6.0 percent) will be added to the SLR.

Stances taken to reduce liquidity pressure on primary dealers. BB reduced the tenure of Assured Liquidity Support (ALS) by 15 days from 75 days earlier with a view to reducing the liquidity pressure on primary dealers and balancing the investment of scheduled banks in government securities. BB also decided to distribute 60 percent of the unsubscribed amount of Treasury bills/bonds to primary dealer (PD) banks and 40 percent to non-PD scheduled banks.

Credit to the Government increased. Total credit to the Government (gross) by the banking system increased by 28.3 percent in FY13 compared with that in FY12, as opposed to the growth recorded in FY12 compared with the same of FY11; the growth accelerated compared to that of FY12. A rising trend of credit to Government by the banking system may create strain on the lending capacity of scheduled banks to the private sectors.

The banking sector demonstrated considerable progress amid political turbulence. In CY13, the banking sector balance sheet size grew notably compared with end-December 2012. However, the growth was smaller compared with the growth rate in previous year. Though most of the income-earning assets registered a positive growth, and investment increased compared with CY12; however, loans and advances decreased. The decrement in loan and advances could partly be attributed to reduced business confidence and prevalence of excess liquidity in the banking industry.

Banks' money at call has decreased at end-December 2013 compared with end-December 2012, attributable to the increase in availability of liquid funds of banks. Higher availability of funds also brought down the advance-deposit ratio (ADR) ratios of many banks below the indicated level in CY13.

Loan concentration was at moderate level. The calculated Herfindahl-Hirschman Index (HHI) evidenced a sign of a moderate sectoral concentration of loans in the banking system in CY13. Although the banking sector loans were concentrated within a few sectors. Moderate concentration for the Bangladesh banking system seems to be not a matter of concern at the moment, as it is quite distant from the upper limit of moderate concentration.

Reported asset quality of the banking system improved. At the end of December 2013 the classified loans' ratio of the banking sector dropped by 1.1 percentage points from the ratio of 10.0 percent recorded in CY12. The drop could in part be attributed to a somewhat more lenient loan rescheduling standard issued by BB, the performance of the new banks and a cautious approach taken by the banks in distributing new loans. Fortunately, classified loans were widely distributed among the banks. On the other hand, more than three-fourths of total non-performing loans were Bad/Loss, which is alarming. However, since banks are required to establish provisions of 100 percent of the value of these loans, there is little further risk with profitability and capital from the presence of these loans.

Provision coverage of loan loss improved. Loan loss provision coverage of the banks improved notably as of end CY13 compared with the position of end CY12. The enhanced provision helped the banks to strengthening their resilience and to bridge the gap between required and maintained provisions in CY13. It's a matter of great relief that the shortfall in maintained provision was almost eliminated at the end of CY13, primarily attributable to the provisions maintained by the state-owned commercial banks (SOCBs).

Relaxation in loan rescheduling stance and consequences thereof. BB relaxed the standard for loan rescheduling in 2013, with an expiry date of 30 June 2014. As a result of the relaxation, a significant portion of classified loans was rescheduled as performing loans. It is mentionable that after a turbulent political year, a onetime relaxation in the loan rescheduling standard may have made economic sense to those banks who have suffered, but it certainly understates the classified loans of the banking industry.

The relatively impressive performance of the banking sector in CY13 was considerably due to the relaxation of loan rescheduling standard. Without the relaxation in loan rescheduling, the banking sector would have slightly underperformed in terms of profitability compared with CY12.

Substantial amount of loans written off. There were quite substantial amounts of loans written off in CY13. A total of BDT 62.97 billion of adversely classified loans

were written off from the books. Of course, banks were required to maintain 100 percent provision against such loans, leaving capital and profitability unaffected by the write-offs.

Stressed advances recorded slight improvement. Stressed advances[4] as proportion of gross advances declined in minor percentage terms in CY13 from 13.7 percent recorded at end-December 2012. At end December 2013, nearly 20 percent of the banks had a stressed advance ratio of more than 20.0 percent, implying that these banks are more vulnerable to credit risk.

From a concentration standpoint, the worst 5 banks and worst 10 banks held nearly one third and a half respectively of total stressed assets in the banking sector at end-December-2013. Stressed assets can have adverse impacts on bank balance sheets and bank profitability. Recently, BB has asked the commercial banks to gear up the recovery drive to ensure collection of installments of rescheduled loans properly and to set up recovery units for strengthening collection of such loans as per schedule.

Deposit growth slightly declined. The share of total deposits was 86.0 percent of the total liabilities as of end-December 2013; however, deposit growth was slightly lower than the growth recorded in CY12. The slowdown in deposit growth rate indicates the presence of excess liquidity in the banking system. The deposit structure shows a greater reliance on term deposits, regarded as more stable, which contributes to financial stability.

The proportion of covered deposits declined but the proportion of fully insured depositors rose. The percentage of covered deposits[5] to total insured deposits recorded a moderate decrease in CY13 compared with the proportion of the CY12, indicating a relatively greater increase in large deposits compared with small deposits in the banking system. On the other hand, the percentage of fully insured depositors (in number) slightly increased, indicating a comparatively higher effective deposit safety net for small depositors in this year compared with the previous year. Still, a well-diversified deposit base in the banking sector indicates a sign of resilience in the system.

Banking sector profitability increased. Banking sector net profit recorded a notable increase in CY13 compared with that in CY12. However, this hugely jumping net profit, coupled with the drop in operating performance, could be largely attributed to the extensive loan rescheduling and drop in required provision in CY13. Accordingly,

[4] Total of gross non-performing assets (NPA) and restructured advances.

[5] Here, the Covered deposits refer to the total figures Considering the deposits up to BDT 100,000 per Bank per depositor.

banking sector return on assets (ROA) and return on equity (ROE) had increased parallel to the increasing net profit in CY13.

Net interest margin of the banking system declined. The net interest margin for every category of banks decreased in CY13 in comparison with CY12, attributable to changes in composition of gross earning assets, especially the reduction in loans and advances and increase in safe liquid investments. In 2013, the growth in expense was more prominent than growth in income which can be partially explained by the higher non-interest expense to total income ratio of the new private commercial banks.

Interest rate spreads slightly declined. The interest rate spreads have, on average, decreased slightly in December 2013 with respect to January 2013 and contributed to the decline in net interest margin.

Regulatory capital position improved. The banking sector capital adequacy improved moderately in CY13, compared with the position of the previous year. In particular, the Tier-1 capital ratio commensurate with the regulatory requirement in CY13 recorded an increasing trend throughout the CY13, implying that the purest form of capital of banks was on an upward trajectory. However, the increase in industry level CAR could in part be attributed to a relaxation in the provision requirement of banks. On the other hand, the proportion of banks compliant with minimum capital adequacy ratio (CAR) slightly increased (4 percentage points) as of end-December 2013 compared with end-December 2012. A quite substantial share of banking assets was concentrated in the banks outside the non-compliant CAR group. It is mentionable that almost 60 percent of the banks' CARs were within the range of 10-16 percent and their assets accounted for nearly 90 percent of the total banking industry's assets as of end December 2013, serving as an indicator of financial soundness of the banking industry.

Pertinently, as of end-December 2013, under Pillar 1 of the Basel-II capital adequacy framework, risk-weighted assets arising from credit risk accounted for nearly 85 percent of the total industry risk-weighted assets, and the next positions were held by operational and market risks respectively. However, from cross-country standpoint, the banking sector of Bangladesh still has a long way to go, as the industry CAR of Bangladesh is still much lower than the same of some South Asian countries namely India, Sri Lanka and Pakistan.

Free capital of the banks demonstrated a rising trend. The free capital of banks, defined as equity minus fixed assets, has been in a rising trend during CY08 to CY13, implying that the amount of capital available to absorb losses was in an increasing trend. In addition, a majority of the banks maintained a leverage ratio (equity/total assets, not risk-weighted) of higher than 5 percent.

Progress took place in the implementation of Pillar 2 of Basel II. To facilitate the Supervisory Review and Evaluation Process (SREP) dialogue, a revised evaluation process and reporting formats were prepared by BB in May 2013. On the basis of those, banks were advised to submit their quantitative information regarding their internal capital adequacy assessment process (ICAAP) as of 31 December 2011 and 31 December 2012. Based on the findings of the reports received from banks, a series of bilateral meeting with the banks was arranged beginning 30 January 2014.

The banks also were instructed to submit a December 2013-based ICAAP report by 31 May 2014, on the basis of which, and taking into account the feedback of the SREP inspection, a formal SREP dialogue will be held in the second half of 2014.

Mixed situations evident in banks' solvency. Banking sector solvency, using data defined by Tier I Capital/(Total Assets-Intangibles), shows that specialized development banks are a cause of concern while domestic private commercial banks (excluding Islamic and new banks) have a better position than state-owned commercial banks, and a similar solvency ratio as Islamic banks. The foreign banks were even more solvent backed by their sound capital base. The new banks had the highest solvency ratio among all the banks attributable to relatively higher equity capital in comparison with their asset base.

Banking sector liquidity stress eased. Banking sector liquidity stress from the beginning of 2012 has been easing down and the trend continued in CY13. It is noteworthy that the turbulent political environment discouraged credit growth which in turn contributed to keep liquidity in a manageable position.

The ADR of banking industry slightly declined. The advance-deposit ratio (ADR) of banking industry declined nearly 10 percentage points in December 2013 from 81.1 percent in January 2013 attributable to higher growth in deposits than that of credit in 2013.

Excess liquidity prevailed in the money market. The interbank money market had excess liquidity in the system in CY13, since the ADR for most of the banks was much below their limit. A turbulent political environment that discouraged credit growth partially explains the scenario. It is noteworthy that the reduction in call money borrowing and investment and a stable call money rate within the lower ranges also indicates excess liquidity in the banking system.

Insignificant extent of overseas exposures of Bangladeshi banks. The total assets of overseas branches of Bangladeshi banks were only 0.9 percent of total industry assets. Two state-owned commercial banks contributed around 85 percent of the total

overseas assets of local banks. Placements of those branches with the central bank and interbank market contributed the major part of their total assets. The aggregate net profit of the overseas branches of Bangladeshi banks during CY13 was 8.6 percent higher than that of the previous year. Shares of assets and liabilities of overseas banks are still insignificant, and pose no threats and vulnerabilities to the system yet.

Islamic banks demonstrated mixed growth. Islamic banks in the banking sector demonstrated modest growth in 2013 in terms of total assets, total deposits, total investments and advances. However, the rate of growth was considerably lower compared with 2012. Like conventional banks, the performances of Islamic banks were quite subdued in 2013, a result that might be attributed to the vulnerable business environment in 2013. The growth in loans and advances of the overall industry was less than the growth for Islamic banks, but the industry growth in deposits was higher compared with Islamic banks.

Compared with CY12, the profitability of Islamic banks dropped in CY13. The ROA of the Islamic banking industry was lower in CY13 compared with the overall banking industry, indicating a relatively inefficient use of assets by the Shari'ah compliant banks. The relative inefficiency might be due to the outlier values of one problem bank. The ROE of the Islamic banking industry, on the other hand, was marginally higher than that of the overall banking industry ROE in CY13, indicating that the earnings of Islamic banks were higher compared with their equity position. The ratio of non-performing investment to total investment of Islamic banks was much lower than the same of overall banking industry, indicating better investment management by the Islamic banks in Bangladesh.

In CY13, Islamic banks complied with the SLR requirements of 11.5 percent of their total demand and time liabilities. The Investment-Deposit Ratio (IDR) of full-fledged Islamic banks was slightly lower at end-December 2013 compared with that at end-December 2012. Since the IDR of Islamic banks were below the recommended maximum level of 90 percent, it can be assessed that no liquidity stress existed in these banks in CY13.

Given the minimum capital requirement of 10.0 percent under the Basel-II accord for CY13, the Capital Adequacy Ratios (CARs) of the 8 Islamic banks in the banking sector was significantly higher than that, which indicates both financial strength and satisfactory compliance with minimum capital requirements. The strong capital base ensures that Islamic banks are well equipped to meet various kinds of shocks.

Box 1.1 : Bangladesh Financial System 2013: Stability Highlights

Factors that may adversely affect the stability situation

- Deficiency of corporate governance caused a few scams at some state-owned commercial banks and specialized banks;
- Decline in real GDP growth rate.

Factors that contribute to improving the stability situation

- Stringent loan classification and provisioning;
- Constraint on loan rescheduling;
- Ample liquidity, at individual institutions and in the system as a whole;
- Automation of the payment and settlement system;
- Broad-based financial inclusion program;
- Emphasis on risk management in banks;
- Improvement in the inflation situation;
- Satisfactory international reserves.

Necessary measures for market participants

- Complete preparatory works for effective implementation of Basel III framework;
- Banks to strengthen their internal control framework;
- Financial intermediaries to improve corporate governance.

Necessary measures for policy makers

- Make 'resolution regimes' and 'lender-of-last-resort' framework for banks functional;
- Strengthen cooperation further among various regulators of financial intermediaries;
- More stringent supervision of banks and other financial institutions.

Risk-weighted assets for credit and market risks increased. At end December 2013, the share of risk weighted assets (RWA) assigned to credit risk was 85 percent of the total RWA of the banking system; whereas the RWA associated with market risk and operational risk were only 6 and 9 percent respectively. RWA for credit risk as ratio of total RWA has decreased by 1 percentage point compared with that of the previous year, while market risk to total RWA has increased by 1 percentage point. However, the share of operational risk has remained unchanged. While credit risk in relative term decreased because of lower credit growth, market risk increased due to an

increase in the prices of equity instruments. The share of RWA assigned to interest rate risk was only 1.6 percent of total risk weighted assets in the banking system, while the share of RWA assigned to exchange rate risk was 1.0 percent and the share of RWA assigned to equity price risk was a bit higher than 3 percent. It is mentionable that capital charges for interest rate risk, exchange rate risk, and equity price risk were BDT 7.8 billion, BDT 5.1 billion, and BDT 16.9 billion respectively. Moreover, the banks' capital charge for operational risk was BDT 51.9 billion at end-December 2013.

The BSEC so far has permitted 8 local companies, in addition to Moody's Investors Service, Standard & Poor's Ratings Services and Fitch Ratings, to operate as credit rating companies, and they are all operating as subsidiaries or technical partners of the other credit rating companies incorporated in different countries. At end-December 2013, total stock of ratable assets in the banking system was BDT 3237.2 billion (about 40 percent of total banking sector assets); out of which nearly half has been rated, and almost one fifth of those carried the best rating.

The banking sector continued to demonstrate mixed resilience. As a part of quarterly surveillance, BB monitors the stress tests conducted by the banks to gauge the resilience of individual banks and the banking sector as a whole to different extreme, yet plausible, risk scenarios. Based on the test results, it has been found that under the assumed scenarios of default of the largest 3 individual/group borrowers, the system would not be able to withstand this shock. However, in a more benign, but still plausible, scenario, if an additional 3 percent of ready-made garments (RMG) sector's loans become non-performing (bad/loss), then the banking sector CAR would still remain above the minimum regulatory limit. Furthermore, if Forced Sale Value (FSV) of mortgaged collaterals was allowed to decline by 10 percent (considered a relatively minor shock), nearly 5 percent of banks would become undercapitalized.

Overall, based on the data as of end-December 2013, the sensitivity analysis on the banking sectors' credit portfolio reveals that the banking sector is less resilient when different credit shocks are applied. As for liquidity, however, the individual banks and the banking system as a whole were resilient against specified liquidity stress scenarios. The banking industry was found to be fairly resilient also in the face of various market risk shocks; the CAR of none of the banks would be affected much under the exchange rate shock. However, a few banks would become undercapitalized due to the interest rate and equity price shocks.

Deposit Insurance. In Bangladesh, scheduled banks finance the deposit insurance scheme by means of regular contributions of premiums. BB invests the fund of the Deposit Insurance Trust Fund (DITF) mostly in government bonds and keeps the

remainder as cash balance maintained with BB. The DITF balance as of 31 December 2013 was equivalent to 2.5 percent of insurable deposits of the entire banking sector in consideration with the current coverage system and was able to reimburse up to 18 smallest banks' insured deposits in case of either a single bank resolution or a combination of linked resolutions. However, a significant number of large banks' insured deposits could not be reimbursed with the current fund balance.

The NBFIs showed mixed performances. In the areas of total assets, borrowings, deposits and capital, the Non-Banking Financial Institutions (NBFI) sector recorded notable growth in CY13 compared with that of the previous year. However, NBFIs reported deterioration in asset quality in CY13. Classified loans and leases increased moderately compared with that of the previous year. The ratio of classified loans and leases to total loans and leases only slightly increased, however, due to growth in the overall portfolio.

Due to a worsening of asset portfolio quality, NBFIs endured higher provisioning costs and weaker financial results. However, during CY13 the NBFI sector still had no provision shortfall against loan losses. The capital adequacy ratio (CAR) for the NBFIs slightly decreased in CY13 compared with that in CY12 due to the proportionate increase of RWA compared with total eligible capital. Nevertheless, this position was well in excess of the regulatory minimum requirement of 10.0 percent.

The NBFIs' profitability increased during CY13 compared with the previous year. However, the profitability ratio lines showed a declining trend due to proportionately higher increase in assets and equities compared with profits. Moreover, as of 31 December 2013, the SLR maintained by the NBFIs was higher than the amount required.

The overall financial strength and resilience of an NBFI is identified by a WAR-WIR Matrix. As on end-December 2013 out of 30 NBFIs, 3 were positioned as green and 16 were positioned as yellow while 11 were positioned red, implying that 27 NBFIs warranted supervisory concern.

Mixed trend evidenced in the interbank repo market. In 2013, turnover of the interbank repo market increased, but the repo rate was trending downwards. The interbank money market and deposit market slowed down a little in December, 2013.

Some favorable developments took place in the capital market. In 2013, the main stock markets in Bangladesh, the DSE and the CSE, showed improvement interms of index movement and trade volume, but remained volatile. The main price index gained less than 5 percent, showing, on average, that the real growth in the market is

negative if adjusted by inflation. However, there were also some positive indications of improvement in the capital market scenarios in 2013, helping the overall financial market towards a stable environment. Market capitalization increased by 10.16 percent, and issued capital increased by 5.25 percent. But over the fiscal year 2012-13 it still failed to keep pace with the nominal GDP growth rate. Liquidity in the market improved, showing increasing confidence of the investors. The market as a whole become more diversified compared with 2012.

The aggregate market price-earnings ratio (P/E) was lower than the long-term average. Earlier in 2013, bad earning reports and higher volatility in share prices caused the P/E to fall. But later it recovered. The market became stable in the latter part of 2013. Both interest rates and the stock index experienced some volatility in the earlier part of 2013, but the volatility eased up later.

Bangladesh Payment and Settlement System Regulation, 2013 came in force. With a view to ensuring an effective management of payment infrastructure in Bangladesh, BB approved the 'Bangladesh Payment and Settlement System Regulation, 2013.' It is mentionable that the financial infrastructure, integrated by a 'National Payment Switch' and 'Mobile Financial Services,' ensured smooth and reliable transactions throughout CY13, which contributed to the stability of the payments system in Bangladesh.

Mixed developments evidenced in the Foreign Exchange Market. During CY13, the foreign exchange (FX) market in Bangladesh demonstrated resilience with low volatility. The Bangladesh Taka (BDT) started to appreciate against USD from June 2013 and the BDT/USD exchange rate remained stable till December 2013. During July-December 2013, BB purchased USD 2.35 billion from domestic FX market to prevent further appreciation of BDT against USD and keep the exchange rate stable.

The share of the authorized dealers '(ADs)' total assets constituted nearly 40.0 percent of the aggregate assets of the banking sector in CY13. On the other hand, the total amount of foreign exchange-denominated assets and liabilities were only USD 40.3 billion and USD 38.9 billion respectively as of 31 December 2013, or only about half a percentage point of total industry assets and liabilities.

The foreign exchange turnover in CY13 was much more stable. The inter-bank FX trade volume decreased moderately compared with that in CY12. Political turbulence during CY13 could be one explanation of the lower volume of trade in the FX market. The real effective exchange rate was more volatile, compared with the nominal exchange rate.

Some other developments took place in the financial system in CY13:

i) BB developed an agent banking framework with a view to creating an enabling environment for commercial banks to offer financial services to a new customer base;

ii) A 'Coordinated Supervision Framework' has been initiated to maintain financial stability, considering the individual roles of regulators without creating any conflicts over polices adopted by the individual regulators.

iii) BB introduced a liquidity monitoring tool named 'Interbank Transaction Matrix' covering all the banks and NBFIs with a view to assessing the risk arising from the liquidity interdependence and placements among the institutions in the banking system;

iv) BB introduced green banking guidelines for the banking sector;

v) With a view to bringing the NBFI under the umbrella of Green Banking, all NBFIs have been instructed by BB to frame their green banking policies by June 2014;

vi) BB has introduced a base rate monitoring system for NBFIs in November 2013 to ensure a reasonable interest rate on their different products;

vii) BB has introduced a 'School Banking' program for financial inclusion in November 2010 and issued a guideline in 2013 to provide students with necessary banking services;

viii) BB issued a number of circulars in relation to good governance, asking chairmen and chief executive officers of all the banks to comply with the existing rules and regulations in line with the Bank Company (Amended) Act, 2013 with a view to protecting the interest of depositors;

ix) Bank Company (Amendment) Act, 2013 was passed by the parliament to enhance BB's regulatory powers to help improve governance and strengthen discipline in the banking system;

x) BB has introduced an 'Integrated Supervision System (ISS), through launching a software in October 2013, with an aim to facilitate quicker financial analysis of all aspects of banking activity, especially to lower the risk of fraud and forgery in the country's banking sector;

xi) A Digital Map of Financial Services in Bangladesh was launched to assess the spatial distribution of bank branches, ATMs, agents and other financial access points;

xii) The Bangladesh Securities and Exchange Commission approved the Memorandum of Association and Article of Association of the DSE and CSE, and accordingly both exchanges became demutualized;

xiii) BB strengthened the monitoring and supervision strategies for the four state-owned commercial banks to improve their financial health. To this end, BB revised and signed fresh memoranda of understandings (MoUs). Moreover, a fresh MoU was signed with a government owned specialized bank to improve its governance.

xiv) As for small and medium-sized enterprises (SMEs), BB made the amendments in its Basel II guidelines and incorporated credit rating of SME exposures from late 2013. In the first phase, BB mapped the SME rating notches of the Bangladesh Rating Agency Limited (BDRAL) with its rating grates (scale of SME 1 to SME 6) and later it mapped the SME rating notches of all the remaining rating agencies incorporated in Bangladesh.

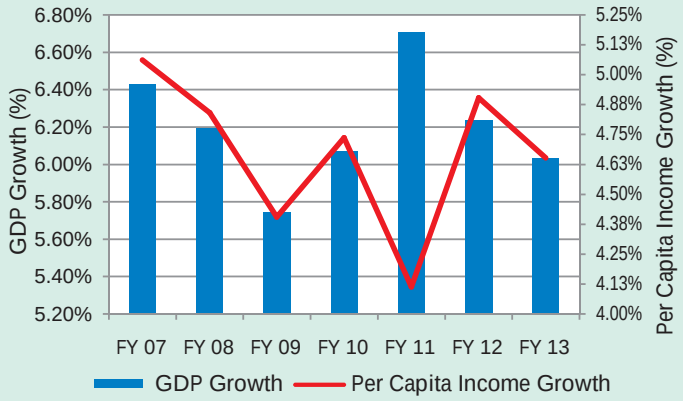
Chapter 2

Macroeconomic Developments

2.1 GDP Growth

Bangladesh achieved a notable economic growth during FY13, while facing a very challenging domestic and global economic environment. According to the BBS's[6] provisional estimate, the nominal GDP of Bangladesh in FY13 was BDT 10,380 billion representing a nominal growth of 13.1 percent. The expansion of the economy during the fiscal year was broad-based, registering positive growth by all sectors and sub-sectors of the economy.

Chart 2.1 : Bangladesh real GDP growth

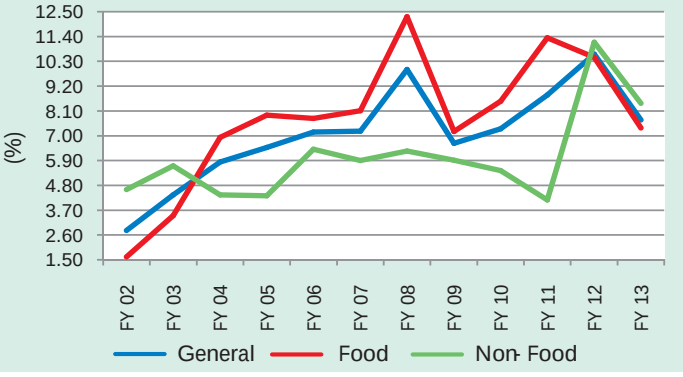


Source: Research Department

GDP growth during the year was based on an impressive growth in industrial and services sectors (9.0 percent and 5.7 percent respectively) and a modest growth in agriculture sector (2.2 percent). In the overall real GDP growth of 6.0 percent in FY13 (Chart 2.1), the services and industrial sectors contributed equally (weighted share in growth rate) with 2.8 percentage points, while the contribution of agricultural sector is 0.4 percentage points.

2.2 Inflation

Chart 2.2 : CPI Inflation



Source: Research Department, Bangladesh Bank

The CPI inflation in Bangladesh showed a downward trend in FY13. The inflationary pressure started to rise from the previous fiscal year, reaching a peak in February 2012 (11.0 percent), but then began to decrease in March 2012.

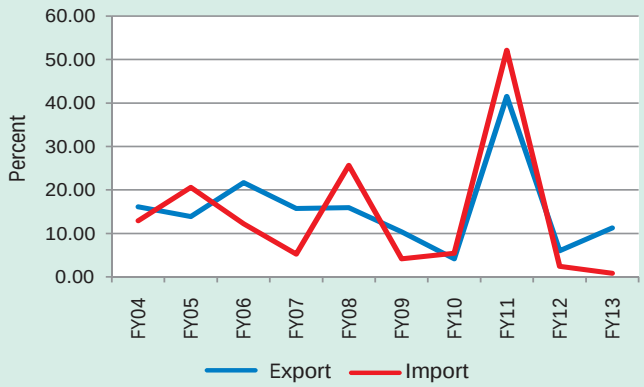
[6] Bangladesh Bureau of Statistics

It had gone down to 7.7 percent by June 2013. The average inflation measured by 12-month average basis (base: FY96 = 100) decreased from 10.6 percent in June 2012 to 7.7 percent in June 2013. This rate was higher than the target of 7.5 percent in the national budget for FY13. According to the new base (FY06 = 100) the 12-month average CPI was 6.8 percent in June 2013 as against 8.7 percent in June 2012. International prices of food and non-food items recorded mixed trends in 2013 compared with those of the previous fiscal year. The South Asian countries, particularly SAARC countries, recorded lower inflation during FY13, except India and Sri Lanka which showed double digit inflation (11.1 percent and 16.0 percent respectively).

2.3 Exports and Imports

Export growth in FY13 was 11.9 percent over the same period of FY12. Aggregate exports increased by BDT 226.0 billion in FY13 from BDT 1897.5 billion in FY12.

Chart 2.3 : Import and export growth



Source: Research Department, Bangladesh Bank

Apparels (woven garments and knitwear products) continued to occupy an overwhelming (about three-fourths) share of the export basket in FY13. Though tea, raw jute, frozen shrimp and fish, specialized textile, and chemical products recorded a negative growth, all other major exportable items increased.

A substantial growth of exports of footwear, leather and leather products and woven garments and petroleum by-products contributed to increase the growth of merchandise exports in FY13 over FY12. Merchandise imports (fob) increased by BDT 49.1 billion (or 1.86 percent) in FY13 from BDT 2634.7 billion in FY12. Increased imports of pulse, oil seeds, wheat, and crude petroleum all contributed to increasing overall imports. Decreased import payments were recorded only for rice, sugar, edible oil, spices and milk and cream. Imports (fob) as a percentage of GDP decreased by 2.8 percentage points in FY13 from 28.7 percent in FY12.

2.4 Balance of Payments

The trade deficit decreased by 24.0 percent in FY13 owing to the relatively larger expansion in export earnings compared with the slight increase in import expenditure. Therefore, a higher increase in exports than imports significantly

lessened the trade deficit from BDT 737.2 billion in FY12 to BDT 560.3 billion in FY13. The deficit in the services account, however, widened by BDT 15.1 billion to BDT 252.5 billion in FY13 from BDT 237.4 billion in the previous year and the deficit in the income accounts widened by BDT 62.5 billion to BDT 185.0 billion in FY13 from BDT 122.5 billion in FY12. Current transfers increased substantially from BDT 1061.8 billion in FY12 to BDT 1199.7 billion (13.0 percent) in FY13, thanks to a hefty 12.1 percent rise in workers' remittances. The effect of all of these changes is that the current account surplus widened significantly from a deficit of BDT 35.4 billion in FY12 to a surplus of BDT 201.8 billion (670.6 percent) in FY13. The current account balance as a percentage of GDP stood at 1.9 in FY13 against 0.4 in FY12. The huge current account surplus and the higher financial inflow led the overall balance to record a surplus of BDT 409.9 billion in FY13.

Chart 2.4 : Current account balance to GDP ratio

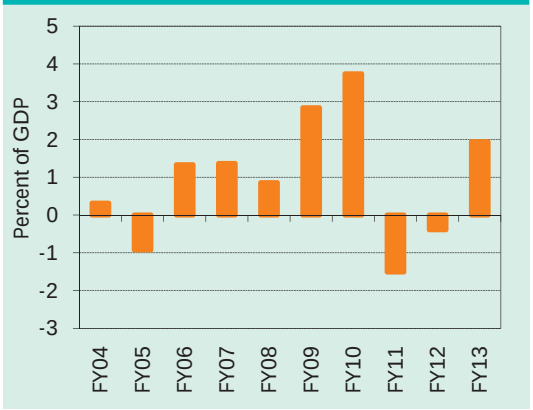
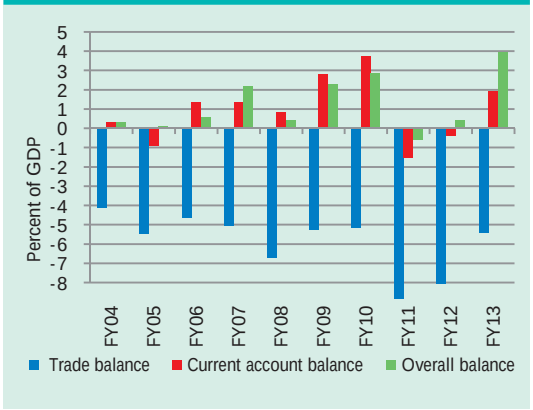


Chart 2.5 : Trends of trade, current account and overall balance



Source: Research Department, Bangladesh Bank

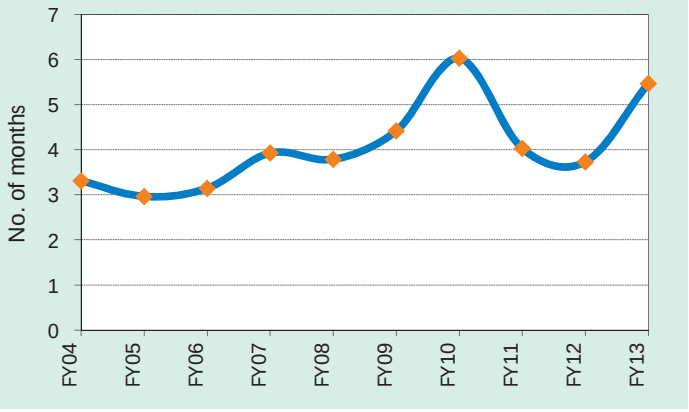
The depreciated value of the exchange rate affected the overall foreign transactions. Trade activity recovered during the year as global economic conditions improved. (Chart 2.4 shows the current account balance to GDP ratio). The huge surplus in the current account balance, combined with a significant rise in both FDI (net) and other investment with portfolio investment in the financial account, contributed to substantial growth in the surplus in overall balance, to BDT 409.9 billion in FY13 from BDT 39.1 billion in FY12. Chart 2.5 portrays the trends of trade, current account and overall balances as a percentage of GDP in recent years. To strengthen BOP further in the medium to long term, non-debt creating and long term financial flows such as FDI need to be encouraged.

2.5 Foreign Exchange Reserve

The gross foreign exchange reserves held by Bangladesh Bank (BB) comprise holdings of gold and foreign exchange, the reserve position with the IMF and holding of Special Drawing Rights (SDR). Despite the worries about the debt crisis and austerity

plans of the euro-zone, and downgrading of sovereign rating of a number of euro-zone economies as well as highly reputed commercial banks by major rating agencies, BB was able to uplift its foreign exchange reserves. At the end of FY13, the gross foreign exchange reserves of BB reached to USD 15.3 billion, which was 47.1 percent higher than USD 10.4 billion in the same period of FY12. Pertinently, at the end of December 2013, gross international reserves stood at USD 18.1 billion which was sufficient to cover nearly six months' import payments.

Chart 2.6 : Imports covered by reserves



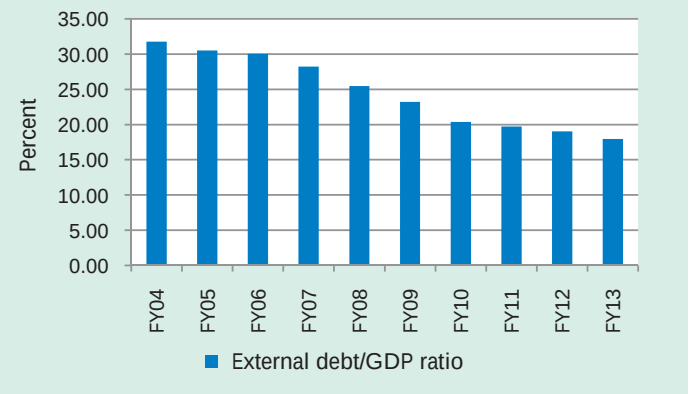
Source: Research Department, Bangladesh Bank

In order to strengthen the long term stability of the country's reserves and diversify the external asset portfolio, BB invested foreign exchange reserves in sovereign/supranational / highly reputed corporate bonds, US Treasury bills, and in short term deposits with highly reputed commercial banks.

2.6 Foreign Aid and External Debt Repayment

Total official foreign aid disbursement increased by 31.0 percent to USD 2786.0^{p} million in FY13 from USD 2126.0 million received in FY12. Food aid disbursements decreased by 71 percent from USD 69.0 million in FY12. However, the disbursement of project assistance increased by 34.5 percent from USD 2057.0 million of FY12. It is mentionable that no commodity aid was received in FY13 as in the preceding year.

Chart 2.7 : External debt/GDP ratio



Source: Research Department, Bangladesh Bank

Total outstanding official external debt as of 30 June 2013 stood at USD 233.2 billion (18.0 percent of GDP) against USD 232.1 billion as of 30 June 2012 (19.0 percent of GDP in FY12). Repayment of official external debt stood at USD 1102.0 million (excluding repurchases from the IMF) in FY13.

This was USD 113 million or 11.4 percent higher than the repayment of USD 989.0 million in FY12. Out of the total repayments, principal payments amounted to USD 906 million while interest payments stood at USD 196.0 million in FY13, against USD 789.0 million and USD 200.0 million respectively during FY12. The debt-service ratio as percentage of exports was 4.1 percent in FY13. The external debt ratio to GDP is shown in Chart 2.7.

2.7 Money and credit growth

Broad money (M2) growth stood at 16.7 percent in FY13, which is marginally lower than 17.4 percent growth recorded in FY12. The growth in broad money was mainly driven by the higher growth in net foreign assets (NFA). The growth in domestic credit declined to 10.9 percent in FY13 against 19.0 percent under the program and 19.2 percent actual growth in FY12 due to a significant slowdown in the private sector credit growth. The growth of private sector credit declined to 10.8 percent in FY13 against 18.5 percent under the program and 19.7 percent actual growth in FY12 as the desire for credit was hindered by uncertainty faced by general investors. For all of FY13 credit to the public sector (including government) from the banking system recorded 11.1 percent growth against the targeted 20.9 percent under the program. In contrast, the growth in NFA stood at 50.3 percent against the 21.0 percent growth target under the program for FY13.

The significant export against insignificant growth of import and floating remittance inflows eased the current account deficit. The access to a greater range of foreign financing inflows led to a positive growth in NFA. The money multiplier increased to 5.38 in FY13 compared with 5.30 in FY12. The two ratios of the money multiplier - the currency-deposit ratio and the reserve-deposit ratio declined to 0.126 and 0.084 respectively in FY13 from 0.127 and 0.086 in FY12. The decline in these two behavioral ratios led to an increase in the money multiplier. This explains the higher growth in board money despite the subdued growth in reserve money.

2.8 Monetary policy

The monetary policy of BB in 2013 has been focused in the fifteenth and sixteenth issues of half yearly monetary policy statement (MPS), which were announced on January 31, 2013 and July 25, 2013 respectively.

The monetary stance for January-June, 2013 was designed to ensure that the credit envelope was sufficient for productive investments to support the attainment of the government's FY13 real GDP growth target while keeping it consistent with the targeted 7.5 percent average inflation rate for FY13. In view of the risks to output growth arising from uncertainties around the global economy, BB reduced all repo rates by 50 basis points. BB has also revised its monetary program with a broad money growth target of 17.7 percent in June 2013 compared with the H1FY13 MPS target of 16.5 percent, and a private sector growth envelope of 18.5 percent in June

2013 compared with the original program of 18.0 percent. At the same time BB committed to bringing inflation down further, and also to avoiding asset price bubbles, and as such continued to encourage banks to use the space for private sector growth for productive, and non speculative purposes.

The monetary stance for July-December 2013 targeted a monetary growth path which aimed to bring average inflation down to 7.0 percent, while ensuring that credit growth was sufficient to stimulate inclusive economic growth. Specifically it aimed to contain reserve money growth to 15.5 percent and broad money growth to 17.2 percent by December 2013. The space for private sector credit growth of 15.5 percent for December 2013 and 16.5 percent in June 2014 has been kept well in line with economic growth targets and higher than the average of 'emerging' Asian economies. The decision to keep repo rates and reserve requirement ratios unchanged, following the fifty (50) basis points rate cut in January 2013, was based on a number of factors. The growing inflationary pressures over the past several months along with the prospects of wage pressures, possible supply-side disruptions and rising regional inflation were the challenges to achieve the FY14 inflation target of 7.0 percent. As such, BB decided to keep policy rates unchanged, keeping aloof from further easing. Moreover, the growing liquidity in the banking system suggested that an easing of reserve requirement ratios was also unnecessary. This monetary policy stance also aimed to preserve the country's external sector stability and continued to support a market-based exchange rate while seeking to avoid excessive foreign exchange rate volatility.

BB reduced the tenure of assured liquidity support (ALS) by 15 days to 60 days from 75 days earlier. With a view to reducing the liquidity pressure on PDs and balancing the investment of scheduled banks in government securities, BB decided to distribute 60 percent of the unsubscribed amount of Treasury bills/bonds to PD banks and 40 percent to Non-PD scheduled banks.

In FY13, commercial banks were asked to maintain CRR and SLR separately with effect from February 01, 2014, keeping the prevailing requirements unchanged. Under the new rules, excess over CRR (currently 6.0 percent) will be added to the SLR. The conventional banks will have to maintain SLR at least 13.0 percent and Shari'ah-based Islamic banks must maintain minimum 5.5 percent.

2.9 Credit to the Government (gross) by the banking system

Total Credit to Government (gross) by the banking system increased by 28.3 percent in FY13 compared with that in FY12. It is mentionable that credit to the Government (gross) rose by 25.7 percent in FY12 compared with the same of FY11. This increase may create strain on the lending capacity of scheduled banks to the private sectors.

In sum, the macroeconomic environment was favorable and contributed to maintaining resilience of the financial sector.

Chapter 3

Banking Sector

Against the backdrop of a turbulent political scenario, considerable progress has been made in reinforcing the resilience of the banking system in CY13. Banking sector assets have increased, and new banks started their operation. Domestic private banks hold a majority of banking assets, and the role of state-owned commercial banks (SCBs) and specialized banks (SBs) has increased slightly (as measured by marginal increase in market share of their assets) in CY13. Due to the volatile business and political environment, banks took a cautious approach in loan distribution and moved to safe liquid investments. Capital injections from the government have strengthened the capital adequacy of SCBs. The operating performance of the banking sector was less impressive compared with that of CY12, but overall reported profitability improved due to the lower provisioning requirement. With the aim to help strengthen the ongoing financial inclusion programs by bringing unbanked people under the banking network, banking sector penetration has been enhanced and branch networks have been expanded. This bold step will facilitate extending credit facilities to the unbanked people, which in turn will be quite helpful in achieving higher growth for Bangladesh economy.

3.1 Financial system of Bangladesh

The financial system of Bangladesh consists of scheduled and non-scheduled banks, non-bank financial institutions, microfinance institutions, insurance companies, co-operative banks, credit rating companies, merchant banks, brokerage houses and stock exchanges.

The financial system includes 4 state-owned commercial banks (SCBs), 4 government-owned specialized development banks (SDBs), 39 domestic private commercial banks (PCBs), and 9 foreign commercial banks (FCBs), 4 Non-scheduled banks and 31 non-bank financial institutions (NBFIs). The financial system also embraces Investment Corporation of Bangladesh (ICB), Bangladesh House Building Finance Corporation (BHBFC), 2 stock exchanges, 62 insurance companies, 599 registered[7] micro-credit organizations, 54 merchant banks (investment banks), 387 depository participants (stock dealers, brokers, etc.), 8 credit rating companies[8], and 119 registered co-operative banks[9]. In the system, Bangladesh Bank (BB), as the central

[7] As of October 2011, refer to BB website Micro Finance Institutions (MFIs)

[8] Source: web page of Securities and Exchange Commission (ESC) (last retrieval: http://www.secbd.org/Company.html)

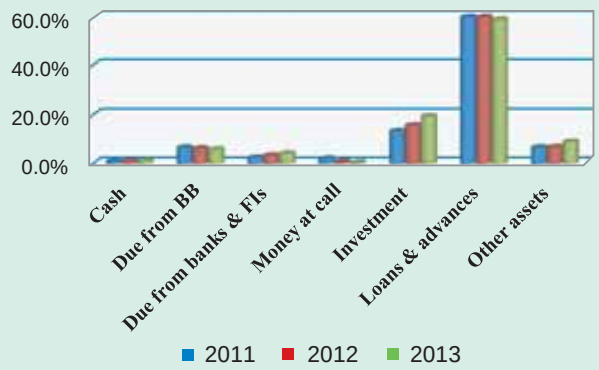
[9] Source: web page of Board of Investment (last retrieval: http://www.boi.gov.bd/index.php/investment-climate-info/finance-and-banking#coorporative-banks)

bank, is regulating banks and non-bank financial institutions, Bangladesh Securities and Exchange Commission (BSEC) is acting as the regulator of the capital markets, the Insurance Development and Regulatory Authority (IDRA) is acting as regulator of the insurance sector, and the Micro-credit Regulatory Authority (MRA) is acting as the regulator of microfinance institutions. The regulatory and supervisory arrangements for these entities are well defined, with strong legal underpinnings. A coordination council, to enhance financial stability through improved coordination between regulators, comprising Bangladesh Bank, the Bangladesh Security Exchange Commission (BSEC), the Insurance Development & Regulatory Authority (IDRA), Registrar of Joint Stock Companies (RJSC) and Microcredit Regulatory Authority (MRA) has been established, and a MOU was signed among them in 2012. The financial sector is continuously evolving towards a more contemporary and efficient system of finance with supportive investment, friendly environment, and inclusive economic growth.

3.2 Asset structure of the banking sector

Despite the volatile political scenario, the banking sector balance sheet size grew by 13.79 percent compared with that of end-December 2012 and reached BDT 8000.2 billion at end-December 2013. This rate of growth is smaller compared with the growth rate in previous year (19.7) and includes the contribution of the newly established banks and the effect of capital injections from government as well. Though most of the income-earning assets registered a positive growth, loans and advances as percentage of total asset has actually decreased and investment increased compared with CY12. This fact may be explained by reduced business confidence and excess liquidity in the banking industry.

Chart 3.1 : Banking sector asset structure: end-December

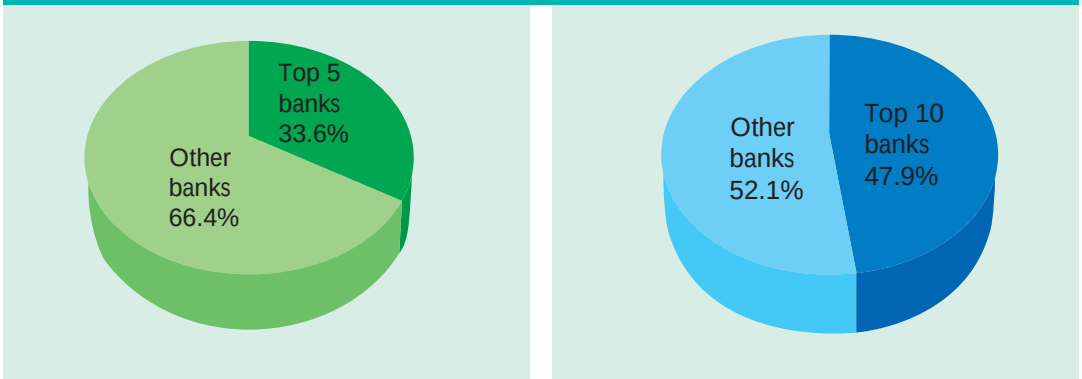


Source: Compilation (Aggregate balance sheet of banking industry): FSD, BB

The share of loans and advances is the largest among asset items, but it declined by 3.4 percentage points in CY13, while the share of investment in government and other securities increased by 3.8 percentage points (both expressed as percentage of total assets). This increase might have occurred because of the tendency of banks to move to safer liquid investments due to persistent political volatility prevailing throughout the year. The share of banks' assets with BB has decreased by 0.4 percentage points and with other banks and FIs increased by 0.8 percentage points.

Banks' money at call has decreased by 0.4 percentage points at end-December 2013 compared with end-December 2012. It decreased due to the increase in availability of liquid funds of banks. Higher availability of funds also brought down the ADR ratios of many banks below 80 percent in CY13. The advance-deposit ratios (ADRs) of only 3 banks were above 90 percent in end December 2013. The share of other assets in the Bangladesh banking industry had decreased by 0.2 percentage points. Compared with other countries, the banking sector is not concentrated, which is favorable for financial sector stability.

Chart 3.2 : Top 5 and top 10 banks based on asset size



Source: Department of Off Site Supervision; Calculation: Financial Stability Department

The concentration ratios of the top 5 banks and top 10 banks within the total assets were 33.6 percent and 47.9 percent respectively at end-December 2013. Among the top 10 (ten) banks, 3 (three) are state-owned commercial banks, 6 (six) are domestic private commercial banks, and 1(one) is a foreign commercial bank.

3.3 Concentration of Assets in the Banking sector

The calculated Herfindahl-Hirschman Index (HHI) of 1269 points evidences a sign of a moderate sectoral concentration of loans in the banking system. Though there are some changes in classification category in defining some sectors, the data still reveal that the banking sector loans are concentrated within a few sectors in CY13. In particular, wholesale and retail trade show a 20.57 percent concentration of the total loan portfolio, followed by large industries and import financing with a share of 19.10 and 12.67 percent respectively. The index value calculated below in Box 3.1 is quite small compared with that of CY12 (1631). It is due to the fact that in the new classification system Large and Medium scale industries category is segregated into two separate categories (Large Industries, Small and Medium Industries) that contributed to the decline in the overall index value. However, the previous category seemed to be too broad, and the present classification is more justified. The level of HHI, calculated

below in Box 3.1, shows moderate concentration for the Bangladesh banking system as it is quite distant from the upper limit of moderate concentration, i.e., HHI of 1800.

Box 3.1 : Sector-wise loans concentration (CY2013)				
Sl.	Sector	Amount (In Billion Taka)	% of Total	HHI*
1	Agriculture	233.42	5.26	27.67
2	Fishing	21.88	0.49	0.24
3	Forestry	0.07	0.00	0.00
4	Large Industries	847.81	19.10	364.81
5	Small and Medium Industries	455.18	10.26	105.27
6	Cottage Industries	5.27	0.12	0.01
7	Service Industries	192.02	4.33	18.75
8	Construction (Housing Societies and Companies)	141.19	3.18	10.11
9	Construction (Urban Housing)	130.88	2.95	8.70
10	Construction (Rural Housing)	9.42	0.21	0.04
11	Road Construction/Repairing	32.72	0.74	0.55
12	Construction (Apartment/House Renovation)	21.89	0.49	0.24
13	Other Constructions	67.33	1.52	2.31
14	Water Works	0.55	0.01	0.00
15	Sanitary Services	0.11	0.00	0.00
16	Road Transport	20.59	0.46	0.21
17	Water Transport	27.30	0.62	0.38
18	Air Transport	5.75	0.13	0.02
19	Wholesale and Retail Trade	913.08	20.57	423.12
20	Procurement by Government	4.96	0.11	0.01
21	Export Financing	191.10	4.31	18.58
22	Import Financing	562.36	12.67	160.53
23	Credit to NBFIs	27.61	0.62	0.38
24	Leasing/ Lease Financing	26.31	0.59	0.35
25	Miscellaneous	499.67	11.26	126.79
	Total Loans and Advances**	4438.47	101	1269.08

* HHI = Herfindal-Hirchman Index

** Total loans and advances excluding bills payable

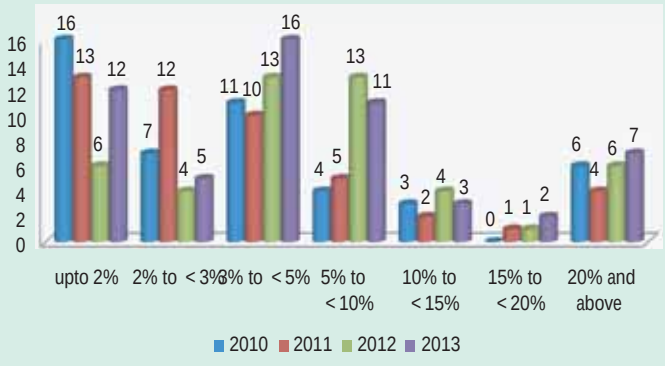
* Some change in classification category in this year

Source: Data: Statistics Department, BB; Computation: FSD, BB.

3.4 Classified loans, provision and written off Loans and Advances in Banking Sector

Classified loans[10] emanated from the deterioration in the quality of the loan portfolios which was expected to emerge due to the rapid growth of credit in recent years. Indeed, the classified loans of the banking sector did actually rise to 10.0 percent from 6.2 percent at end-December 2012 compared with that of end-December 2011. The main reasons for the increase were primarily due to new stricter loan classification and provisioning regulations of BB and down gradation of assets against the biggest ever identified financial crimes[11] in the banking system in 2012. However, at the end of December 2013 classified loans of the banking sector dropped to 8.93 percent, defying the expectation of a rise, given the political turmoil in Bangladesh in 2013. The drop may be explained by a more lenient loan rescheduling standard issued by BB, the performance of the new banks (whose loans are too new for credit quality issues to appear), and a cautious approach taken by the banks in distributing new loans. Among the factors, it is important to note that the newly rescheduled loans would have increased the classified loans by nearly 2 percentage points had they not been rescheduled. The impact of rescheduled loans will be analyzed in detail in different parts of this chapter.

Chart 3.3 : Distribution of banks by classified loans to total loans ratio: end-December



Source: Data: BRPD, BB; Computation: FSD, BB.

Bank-wise information indicates that classified loans were widely distributed among the banks. The distribution of banks based on their classified loans to total loans ratio indicates that the number of banks with double-digit values of classified loans to loan ratios is 12 in CY13, one more than in CY12. Moreover, 7 banks have their classified loans to total loans ratio over 20 percent.

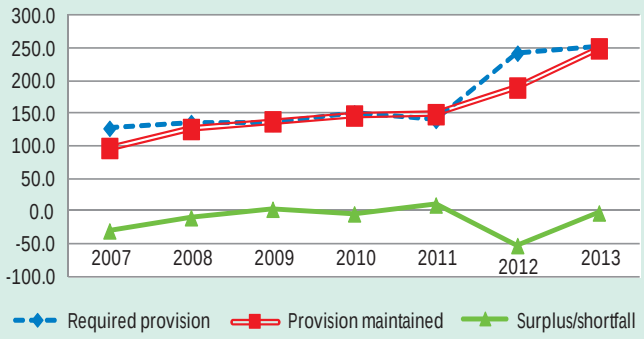
[10] Classified loans are those loans which are classified as `Sub-Standard', 'Doubtful' or 'Bad/Loss' as per BRPD circular # 14, dated 23.09.2012.

[11] The biggest ever identified financial frauds were committed by two corporate groups with different bank branches of SCBs and private commercial banks through fraudulent letters of credit, inland bills

Notably, the classified loans to total loans ratios of 4 state-owned commercial banks ranged between 10 percent and 32 percent, whereas it was between 11 percent and 36 percent in CY12. Out of 9 foreign banks, 5 are below 5 percent, 1 is above 5 percent and 3 are above 10 percent at end of CY13. However, individual classified loans to total loans ratios of all the private commercial banks of banking sector are below 9 percent, excepting 1 problem bank in the system.

The classified loans required banks to create cumulative provisions amounting to BDT 249.8 billion as at end of CY13, which is BDT 60.1 billion higher than that of the CY12. This high provision helped banks to strengthen their resilience and reduce the gap between required and maintained provision to BDT 2.6 billion in CY13, significantly down from BDT 52.6 billion in CY12. As the following graph shows, the shortfall in maintained provision was almost eliminated at the end of CY13. This performance is primarily attributed to the provision maintained in SOCBs. In CY13, SOCBs maintained a surplus provision of BDT 14.54 billion versus a provision shortfall of BDT 37.32 billion in CY12. The capital injection in the SOCBs by the government in CY13 enabled them to maintain the surplus provision for classified loans. The maintained provisions to classified loans ratio shifted up to 61.56 percent by the end of CY13, compared with 44.42 percent at the end of CY12 indicating the strengthening of the resiliency of the banking sector.

Chart 3.4 : Banking sector loan loss provisions: end December



The overall shortfall in provision in the banking sector decreased to BDT 2.6 billion as of end of CY13 from a deficit of BDT 52.6 billion in CY12. Three specialized development banks and two domestic private commercial banks are still having a provision shortfall. The remaining banks maintained a surplus provision.

Source: Data: BRPD, BB; Computation: FSD, BB.

The shortfall in provisions maintained by the specialized development banks amounts to BDT 20.83 billion, which is more than 8 times the total shortfall (BDT 2.6 billion). It is noteworthy that almost all the banks other than the specialized development banks and two problem banks are showing a sign of resilience to the early headwinds of credit risk.

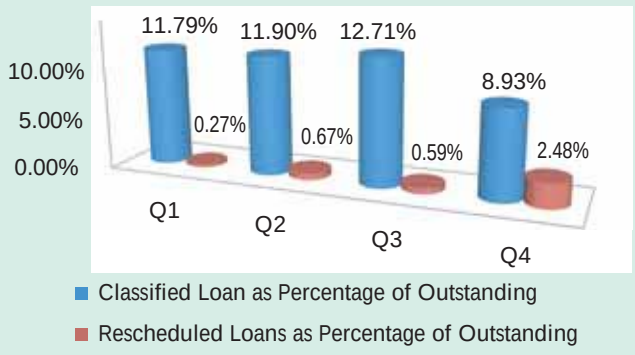
Box 3.2 : Impact of Rescheduled Loans on Classification and Banking Sector Profitability

BB relaxed the standard for loan rescheduling in 2013. The relaxation will be applicable for a temporary time period (till 30 June 2014). As a result of the relaxation, a large portion of classified loans was rescheduled as performing loans. After a turbulent political year, a onetime relaxation in the loan rescheduling standard may have made economic sense to those banks which benefitted, but it certainly understates the classified loans of the banking industry. Rescheduling of loans reduces the amount of classified loans, reduces the required provision to be maintained and the concomitant provision shortfall. It also reduces expenses incurred in the income statement by the amount of bad debt provision that should have otherwise needed to be maintained. This amount also affects the capital adequacy ratio. Due to rescheduling, a relatively lower provision shortfall needs to be deducted from eligible capital, and a higher CAR can be shown artificially.

Impact of Rescheduled Loans on Classification

Loan rescheduling has its impact on different indicators of the banking industry. Here, the impact of rescheduling on loan classification is analyzed in detail. Every year a certain portion of otherwise classified loans are rescheduled as regular loans and classified loans to total outstanding loans ratio is calculated excluding those loans. However, the percentage of rescheduled loans remains within a minimal range and no separate impact analysis of rescheduling on classified loans becomes absolutely necessary. In CY13, due to BB's temporary relaxation in the loan rescheduling standard, the amount of rescheduled loans skyrocketed and these excess rescheduled loans over a normal range of rescheduled loans deserve detailed analysis.

Chart 3.5 : Classified and rescheduled loans for 2013

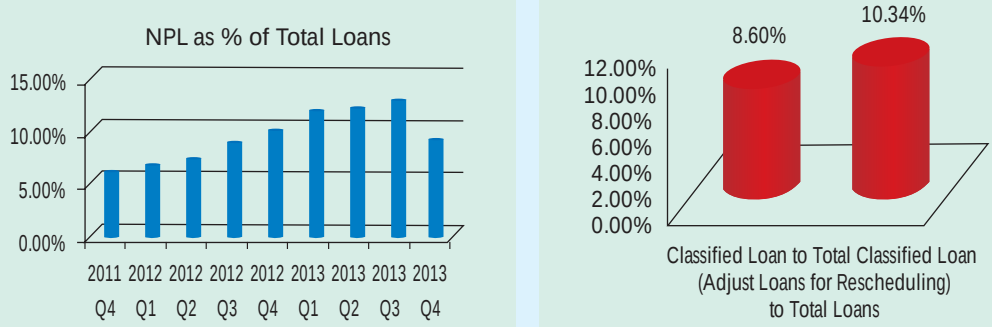


Source: Data: BRPD (Through EDW System), BB
Computation: FSD, BB

The graph shows that rescheduled loans increased and classified loans decreased a great deal during the fourth quarter of 2013 when BB made its temporary relaxation in the loan rescheduling standard. However, the rescheduled loans include a portion of classified loans which would have been rescheduled even without the

relaxation of the standard for economic reasons. The excess increase in rescheduled loans which occurred exclusively due to the lenient rescheduling policy of BB is identified by deducting the highest value for rescheduled loans to total loans ratio (0.67%) in the past three quarters of CY13 (Quarter 2) from the same ratio of quarter 4 and by multiplying the difference with the total amount of loans rescheduled in quarter 4 of CY13. The resulting amount is the rescheduled amount of loans which would have been treated as classified loan without the relaxation of the circular. The resulting amount is BDT 82.19 billion for the fourth quarter of CY13.

Chart 3.6 : Classified loans adjusted for rescheduling



Source: Data: BRPD (Through EDW System), BB; Computation: FSD, BB

In the upper left graph, classified loans as a percentage of total loans decreased by more than 2 percentage points in quarter four of CY13 compared with the previous quarter. As shown in the right graph, this fact can be explained if the impact of rescheduled loan is incorporated in redefining classified loans. The adjusted classified loan is 1.74 percentage points higher compared with conventional classified loans; both as percentage of outstanding loans. Another reason for lower classified loans in fourth quarter might be the incentive for banks to understate classified loans is highest during the fourth quarter of every year when they submit unaudited data. After the audit, a higher classification is reflected in the first quarter of the next year. This trend is prevailing in the upper left graph.

Impact of Rescheduled loans on Banking Sector Profitability

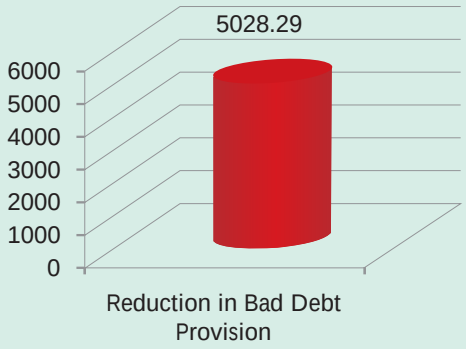
The temporary relaxation of the standard for loan rescheduling by BB in the last quarter of CY13 (the relaxation was for a temporary period up to June 30, 2014) and the resulting excess rescheduled loans affected banking sector profitability in several ways.

The excess rescheduled loans over its normal trends allows the banks to maintain less of a bad debt provision than would otherwise be required, necessitating less required expenditure in their income statements and overstating profitability. Because of this fact, there has been a substantial decrease in provision requirement this year. To find out the true profitability of the banking industry and to compare that with that of the previous years, the impact of excess rescheduled loans during the fourth quarter of CY13 must be addressed. It should also be noted that not every classified loan that are rescheduled in CY13 needs to be adjusted. Some portion of classified loans in the banking industry is rescheduled each year and it is reasonable to assume that in this year there could also be some loans which would have been rescheduled. Only the portion of rescheduled loans which exceeds the usual rescheduled loans to outstanding loans ratio may be considered as the impact of the relaxation of rescheduled loan standard during the last quarter of CY13, and only this portion needs to be adjusted and treated as usual classified loans.

The procedure followed to identify the rescheduled amount of loans which would have been treated as classified loans without the relaxation of the circular is explained in the earlier portion of the box where impact on loan classification is analyzed. Here we analyze the impact of those loans (nearly BDT 83 billion) in the profitability of the banking sector.

The graph shows the reduction of bad debt provision due to the relaxation of loan rescheduling standard.

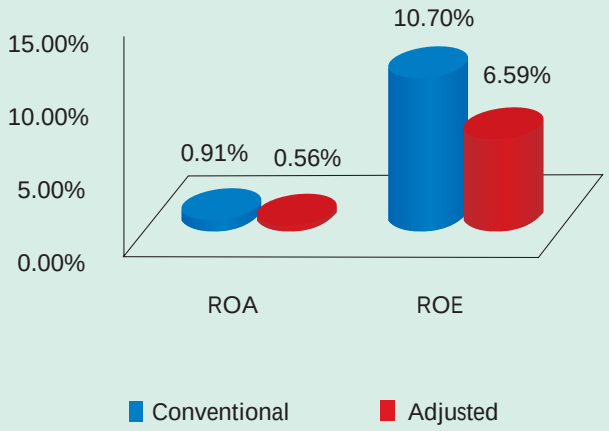
Chart 3.7 : Bad debt provision due to relaxation of loan rescheduling standard for CY13 (Figures in Million BDT)



Had the loans not been rescheduled, then the banks would have had to maintain around BDT 50 billion as bad debt provisions. This fact clearly explains the reason for the large reduction (BDT 46.6 billion) in provision maintained in CY13.

Source: Data: BRPD (Through EDW system), BB
Compilation: FSD, BB

Chart 3.8 : Impact of rescheduling on ROA and ROE



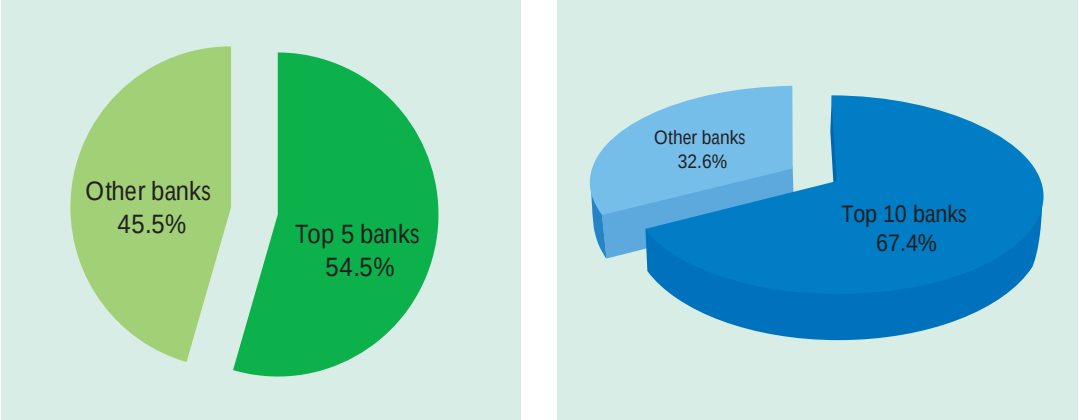
Source: Data: BRPD (Through EDW system), DOS, BB,
Compilation: FSD, BB

After incorporating the impact of rescheduling, both ROA and ROE decrease substantially. ROA decreases by 35 basis points and ROE decreases by 410 basis points. This finding explains that the relatively impressive performance of the banking sector in CY13 (as shown by increase in unadjusted ROE by 30 basis points and ROA by 290 basis points compared to CY12) is entirely due to the relaxation of loan rescheduling standard.

Without the relaxation in loan rescheduling, the banking sector would have underperformed in terms of profitability compared with that of CY12.

Besides rescheduling, there have been quite substantial amounts of loans written-off in CY13. Scheduled banks, as per the central bank's regulations, are allowed to write off their loans that have been adversely classified for more than 5 years and have maintained a 100 percent provision against those loans. A total of BDT 62.97 billion of adversely classified loans were written off from the books in CY13.

Chart 3.9 : Worst 5 and worst 10 banks based on NPL

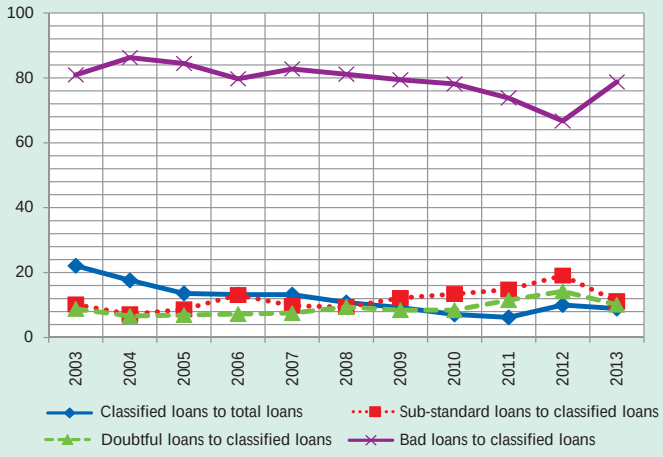


Source: Data: BRPD, BB; Computation: FSD, BB

Classified loan concentration ratios[12] (based on NPL amount) of the worst 5 banks and worst 10 banks were 54.5 percent and 67.4 percent respectively at end-December 2013. Concentration was higher in FY12 (the ratios were 62.7 percent and 73.2 percent respectively). The classified loans in the state-owned commercial banks are higher due to the nature of their operations (lack of efficiency in fund management, extending obligatory financing towards social and economic priority sectors etc.) and the size of their loan portfolio. Among the worst 10 banks, based on NPL amount, 4 are state-owned commercial banks, 3 are domestic private commercial banks, and 3 are specialized development banks. However, among the worst 10 banks, considering the NPL ratios (in order to ignore the impact of size of the portfolio), 2 are state-owned commercial banks, 1 is a domestic private commercial bank, 4 are specialized development banks and 3 are foreign banks. It is a matter of concern that the number of foreign banks included among the worst 10 banks, based on NPL ratios, is increasing though their total loan amount is still not very significant.

[12] See Table: V in Appendix for details

Chart 3.10 : Year-wise classified loans ratios of the banking sector: end-December



Source: Data: BRPD, BB; Computation: FSD, BB

The non-performing loans to total loans ratio has decreased to 8.9 percent in CY13 from 10 percent in CY12. More than three-fourths of total non-performing loans (NPL) [78.7 percent of NPL], amounting to BDT 319.2 billion, is Bad/Loss. It is alarming that a bulk of classified loans were bad loans.

The ratio of bad loans to total classified loans ratio increased to 78.7 percent in CY13 from 66.7 percent in CY12, meaning that a significant amount of inferior quality assets increased within the banking sector. On the other hand, since banks are required to establish provisions of 100 percent of the value of these loans, there is little further risk to profitability and capital from the presence of these loans. The NPL under sub-standard and doubtful categories, on the other hand, constituted respectively 11.2 percent and 10.1 percent of total NPL.

Chart 3.11 : NPL Compositions

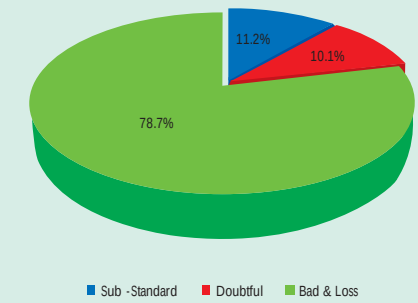
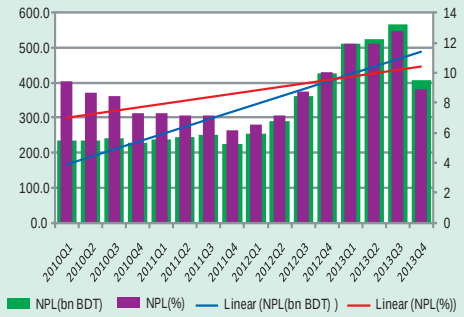


Chart 3.12 : NPL and NPL ratio during 2010-2013



Source: Data: BRPD, BB; Computation: FSD, BB

The adverse effect on bank balance sheets arising out of high classified loans is a major concern for the monetary authority. Bangladesh Bank's directives to the banks to take precautions while extending loans to high risk sectors and prioritize loans to productive sectors, in conjunction with the government's enactment of laws

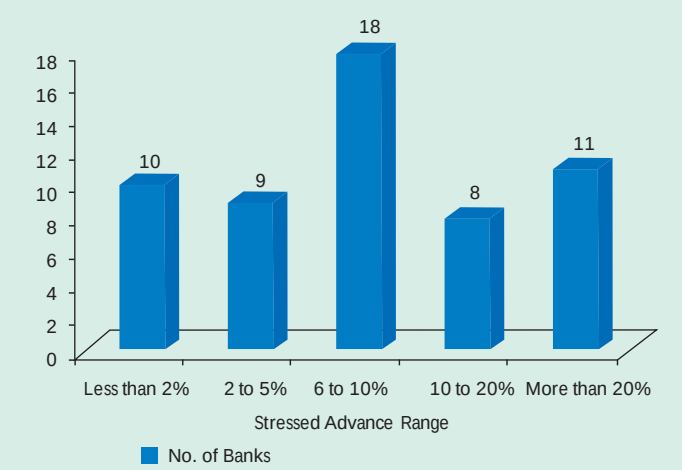
prohibiting loan defaulters to take part in elections and similar other measures should help to further improve the classified loans situation in the country[13].

3.5 Stressed Advances in Banking Sector

Stressed advances, which are total of gross non-performing assets (NPA) and restructured advances, can be taken as an indicator to measure the asset quality of banking sector that could originate from wrong appraisal that leads to diversions, over- leverage, fraud, and most importantly, NPAs. Stressed assets[14] were 13.5 percent of gross advances at end-December 2013, compared with 13.7 percent at end-December 2012.

The bank-wise distribution of the stressed advances ratio (Stressed advances to Total Advances) for the year 2013 is shown in the following:

Chart 3.13 : Bank-wise stressed advances ratio



The chart shows that out of a total of 56 banks operating in Bangladesh, 18 banks have a stressed advances ratio between 6 to 10 percent. Eleven banks have a stressed advances ratio of more than 20 percent, which reveals that these banks are more vulnerable to credit risk.

Source: Data: Scheduled Banks; Computation: FSD,BB

Conversely, 10 banks have a stressed advance ratio of less than 2 percent, of which 9 are newly licensed commercial banks. The distribution of stressed advances can be spread through three major segments incorporating both industry and service sectors namely Micro and Small Segments, Medium and Large Segments, and Retail and Other Segments.

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[13] BB made its loan classification/provisioning policy stricter through BRPD Circular No. 7 of 2012 and subsequently revised it through BRPD Circular No. 14 of 2012.

[14] See Table1 for details.

Chart 3.14 : Industry-wise stressed advances ratio

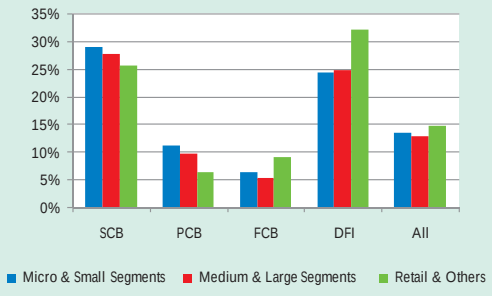
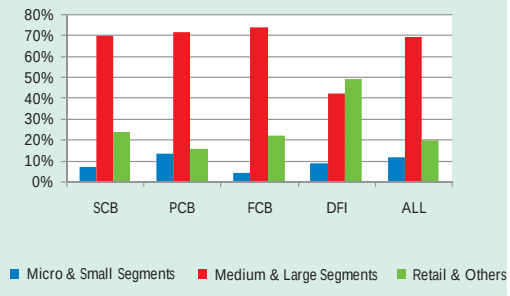


Chart 3.15 : Banks share in three major segments



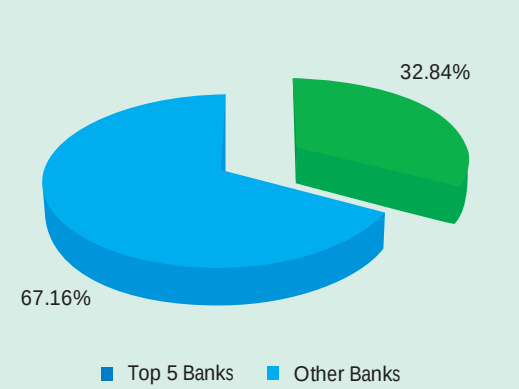
Source: Data: Scheduled Banks; Computation: FSD,BB

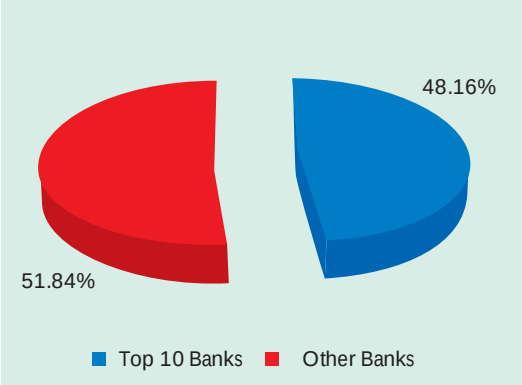
From the chart it is observed that Medium and Large segments, having 69 percent of total loans of all banks, registered 13 percent of stressed advances; whereas Micro and Small Segments, having only 11 percent of total loans, provided 14 percent of stressed advances. Twenty percent of total loans of all banks consisted of retail and other segments and incurred 15 percent of stressed advances. Stressed assets continued to rise, mainly due to higher gross non-performing loans and resultant growth in restructured assets. Subsequently, the public sector banks are in a worse situation compared with their private sector counterparts.

Analysis of the stressed asset concentration ratio[15] shows that, out of 56 banks, the worst 5 banks and worst 10 banks held 32.8 percent and 48.2 percent respectively of total stressed assets in the banking sector at end-December-2013. Among the worst 10 banks, 3 are state owned commercial banks, 3 are specialized development banks, 2 are domestic private commercial banks and 2 are foreign banks. Stressed assets in those banks are higher because of lack of efficiency and transparency in the credit approval process, credit administration, credit monitoring and recovery and poor selection of borrowers, politically motivated lending, and negligence in risk management practices.

[15] Micro and Small segments, Medium and Large segments: Definition based on SMESPD circular No-01, dated 19 June, 2011.
Retail and other segments: Loans to individuals and other than MSME and Large segments.
See Table: 2 for details

Chart 3.16 : Worst 5 and worst 10 banks based on stressed advances





Source: Data: Scheduled Banks; Computation: FSD, BB

An overall analysis of stressed advances of the banking sector reveals that most of the banks maintain only required provisions, which may not be enough in the long run to mitigate the threat of increasing stressed assets in different segments. Put differently, provisions for stressed assets are not adequate to deal with the possibility of a greater amount of their stressed loans being defaulted by borrowers and turning into bad loans. Banks should give emphasis on sound risk management activities and use these tools as an early warning signal for the probable downgrade of their asset quality.

Stressed assets can put adverse effects on bank balance sheets and profitability. Consequently, it is a major concern for the regulatory authority as well. Recently, BB has instructed the commercial banks to gear up the recovery drive to ensure collection of installments of rescheduled loans properly. All banks have also been advised to set up recovery units for strengthening collection of such loans as per schedule. These measures should help to further improve the prevailing stressed asset scenario in the country[16].

[16] Web link: http://www.bangladesh-bank.org/recentupcoming/news/feb192014newse908.pdf

BOX 3.3 : Sector-wise non performing asset distribution (CY2013) at a glance						
SI No.	Name of the Sector	Total Outstanding (in BDT billion)	Total Classified (in BDT billion)	% of Classified of Outstanding	% of Total Outstanding of Total Bank Industry	% of Total Outstanding of Total Bank Industry
1	Agriculture	250.30	57.10	22.80%	5.40%	14.10%
2	Industrial (Other than Working Capital): (a) Large and Medium Scale Ind.	557.70	43.40	7.80%	11.90%	10.80%
	(b) Small and Cottage Ind.	41.20	7.30	17.90%	0.90%	1.80%
3	Working Capital:(a) Large and Medium Scale Ind.	588.80	39.10	6.60%	12.60%	9.60%
	(b) Small and Cottage Ind.	125.90	9.30	7.40%	2.70%	2.30%
4	Export Credit	128.70	14.10	10.90%	2.70%	3.50%
5	Import Credit	154.20	29.40	19.10%	3.30%	7.20%
6	Loan Against Trust receipt (LTR)	379.60	19.60	5.10%	8.10%	4.80%
7	Commercial Loans	836.50	51.60	6.10%	17.90%	12.60%
8	RMG and Textile	561.51	68.10	12.10%	12.10%	16.70%
9	Ship building and Ship breaking	66.10	5.20	7.90%	1.50%	1.30%
	Construction : (a) Housing	231.30	9.39	4.10%	4.90%	2.30%
	(b) Other than Housing	89.90	6.10	6.80%	1.90%	1.60%
10	Transport and Communication	108.90	6.70	6.20%	2.30%	1.60%
11	Consumer Credit	167.80	11.90	7.10%	3.60%	2.90%
12	Other Loans	386.10	28.10	7.30%	8.20%	6.90%
	Total	4674.50	406.40	8.70%	100.00%	100.00%

Source: Data: DOS, BB, Compilation: FSD, BB

3.6 Liability structure of the banking sector

Deposits are the largest source of external funds in the banking sector. The share of total deposits was 86.0 percent of the total liabilities as of end-December 2013.

Chart 3.17 : Banking sector liability structure: end-December 2013

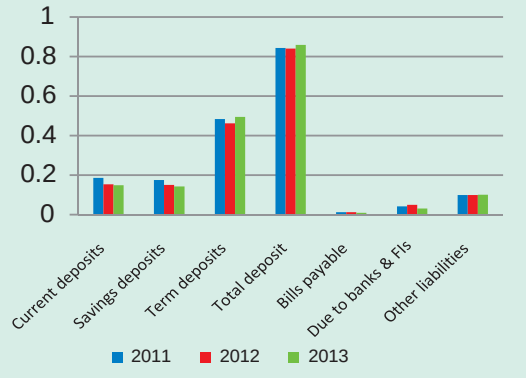
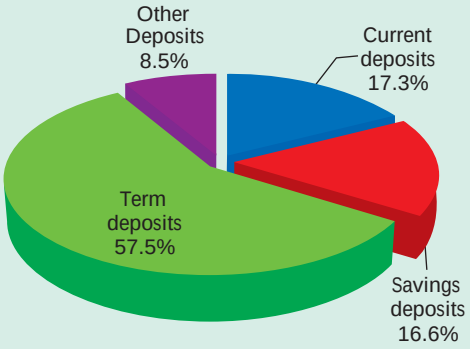


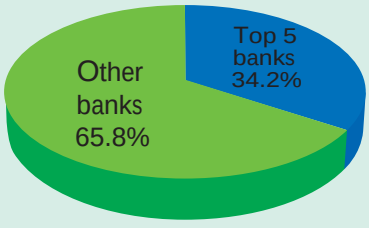
Chart 3.18 : Banking sector deposit structure by types of account: CY 2013

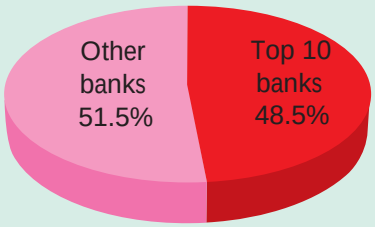


Source: Data: DOS, BB; Compilation (Aggregate balance sheet of banking industry): FSD, BB

As of end-December 2013, total deposit increased by 16.08 percent (20.2 percent in CY12) and borrowing from other banks and FIs decreased by 29.87 percent (contrasted with an increase of 39.6 percent in CY12), whereas other liabilities increased by 15.07 percent compared with end-December 2012. The slowdown in deposit growth rate, despite inclusion of 9 new banks and a large decline in interbank borrowings, indicates the excess liquidity in the banking system. The share of term deposits was 57.55 percent of total deposits, whereas the shares of savings deposits, current deposits, and other deposits were 16.65 percent, 17.3 percent, and 8.47 percent respectively of total deposits at end-December 2013. The relative proportions of deposits remain similar as in CY12. The deposit structure shows a greater reliance on term deposits, regarded as more stable, which contributes to financial stability.

Chart 3.19 : Top 5 and top 10 banks on size of deposit



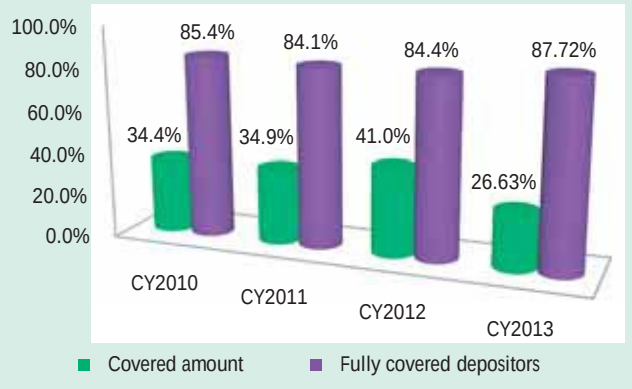


Source: Data: DOS, BB; Compilation (Aggregate balance sheet of banking industry): FSD, BB

The concentration ratios of the top 5 banks and top 10 banks within total deposits are 34.2 percent and 48.5 percent respectively at end-December 2013. The concentration decreased very little despite the inclusion of 9 new banks in the banking system. Among the top 10 banks, 4 are state-owned commercial banks, 5 are domestic private commercial banks and 1 is a foreign commercial bank. And among the top 5 banks, 3 are state-owned commercial banks and the remaining 2 are domestic private commercial banks. No specialized development bank is included in the top 5 or top 10 banks, indicating that concentration of deposits in these banks is gradually decreasing. In 2012, one specialized bank was included in the top 10 list.

3.7 Banking sector deposit safety net

Chart 3.20 : Safety net on banking sector deposits



Source: Data: DID, BB; Computation: FSD, BB

The deposit insurance system aims at minimizing the risk of loss of depositors' funds with banks. The present coverage of the deposits is BDT 100,000 per depositor per bank.

However, a proposal to enhance the ceiling of coverage to 200,000 per depositor per bank is under process of approval with the Ministry of Finance. The percentage of covered deposits[17] to total insured deposits decreased from 41 percent in CY12 to 26.63 percent in CY13, indicating a relatively greater increase in large deposits compared with small deposits for the banking system. The deposit-seeking activities of new banks might be causing this scenario. It has been observed large deposits[18] to total deposit ratio (around 98 percent) of new banks is quite high compared with that of the seasoned banks (around 17 percent). On the other hand, the percentage of depositors (in number) who are fully insured increased from 84.4 percent in CY12 to 87.72 percent in CY13. This factor indicates a comparatively higher effective deposit safety net in this year compared with the previous year. Still, a well-diversified deposit base in the banking sector indicates a sign of resilience in the system.

[17] Here, the covered amount refers to the total figure considering the deposits up to BDT 100,000 per bank per depositor.

[18] Here, the deposits amounting BDT 100,001 and more are considered as large deposits.

Box 3.4 : Deposit safety net in banking system

Table 3.1 Deposit Insurance Trust Fund and its composition[19]

(Amount in billion BDT)

Particulars	2009	2010	2011	2012	2013
Insurable Deposits	2,439.84	3,238.58	3,857.33	4,229.77	5,322.93
Insurance Premium	1.34	1.65	1.92	2.31	3.34
i. Investment	12.50	16.10	19.46	23.99	29.76
ii. Cash	0.06	0.01	0.32	0.15	0.07
Deposit Insurance Trust Fund Balance	12.56	16.11	19.78	24.14	29.83

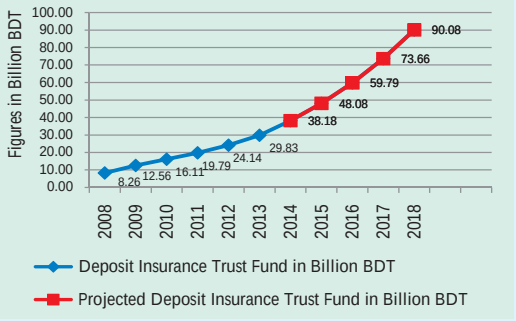
Source: DID, BB; Compilation: FSD, BB.

Banks usually transform short-term deposits into long-term loans. This mechanism makes banks vulnerable to various risks, including liquidity risks and capital adequacy risks.

With a view to protecting the financial system of Bangladesh and contributing to financial stability, Bangladesh Bank (BB) is committed to ensure the interest of the depositors by broadening the 'financial safety net'. This safety net obviously involves the provision of a deposit insurance system.

The role of deposit insurance system is to protect depositors, particularly small, less financially sophisticated depositors, against losses they may face as a result of the failure of banks. Moreover, the availability of deposit insurance protects banks against the risk of 'bank runs' and therefore contributes to financial stability.

Chart 3.21 : Forecasted depositors' safety net in next 5 years



Source: DID, BB; Compilation: FSD, BB

In Bangladesh, the funding mechanism of the existing deposit insurance system is unidirectional; i.e., scheduled banks finance the scheme by means of regular contributions of premiums depending on the premium rate applicable to a particular type of bank and the amount of assessable deposits. BB invests the Deposit Insurance Trust Fund (DITF) mostly in government bonds and the remainder is kept as cash balance maintained at BB.

As of 31 December 2013, the Deposit Insurance Trust Fund reached around 30 billion BDT, which is almost threefold that of 2009.

[19] The source of the deposit insurance trust fund is unidirectional, mainly from the insurance premium which is invested mostly in government bonds and the remainder is kept as cash. Therefore, the Deposit Insurance Trust Fund (DITF) balance is mainly comprised of the investment amount and cash.

Methodology of forecasting the Deposit Insurance Trust Fund (DITF)

1. Firstly, total time and demand liabilities (TTDL) have been forecasted using geometric mean;
2. Secondly, insurable deposits have been forecasted based on their relationship between insurable deposits and TTDL;
3. Thirdly, assessable deposits (base value for determining the premium) have been computed by deducting the (Statutory Liquidity Requirements (SLR);
4. Fourthly, the relationship between premium (collected) and assessable deposits has been estimated; It is to mention here that due to a significant increase (14%) in the premium rate in 2013, the relationship (ratio of premium and assessable deposits) that existed in 2013, rather than an arithmetic mean, has been used for forecasting premiums;
5. Fifthly, cumulative premiums have been forecasted;
6. Finally, the relationship between the deposit insurance trust fund (DITF) and cumulative premiums has been estimated and used for forecasting the DITF.

Bangladesh does not have any experience of bank resolution yet. It embraced deposit insurance in the banking system in 1984. Since then the deposit insurance fund has grown steadily over time and, assuming that it does not have to be used to resolve a failing bank, the projected size of the fund in next 5 years could be around BDT 90 billion. However, this forecasted value is quite different from that of the value mentioned in the Financial Stability Report, 2012. The deviation is due to some changes in the methodology of forecasting, making the estimates more practical and understandable.

Current capacity of the DITF

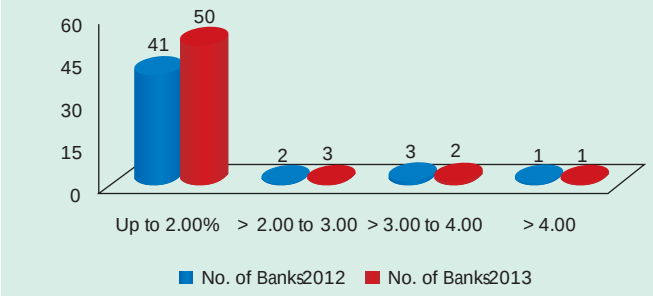
The DITF fund balance as of 31 December 2013, is equivalent to 0.56% of insurable deposits and 1.89% of the total covered deposits of the entire banking sector in consideration with the current coverage system (per depositor up to BDT 100,000). This fund could reimburse up to 15 smallest banks' insured deposits in the case of either single bank resolution or a combination of linked resolutions. However, a significant number of large banks' insured deposits could not be reimbursed (hypothetical scenario) with the current fund balance.

3.8 Banking sector profitability

The banking sector's operating profit decreased by 5.68 percent from BDT 197.3 billion in CY12 to BDT 186.1 billion in CY13. The net profit, however, increased by a staggering 62.45 percent from BDT 44.66 billion in CY12 to BDT 72.55 billion in CY13. The drop in operating performance combined with a hugely jumping net profit can be attributed to the extensive loan rescheduling and drop in required provision

in CY13. Due to the rescheduling of classified loans, previously classified loans are treated as performing loans and banks do not have to incur provisions for those loans as expenses in the income statement. Accordingly, banking sector return on assets (ROA) and return on equity (ROE) had increased, parallel to the increasing net profit in CY13.

Chart 3.22 : Sector return on assets (ROA): CY 2013



Source: Data: DOS, BB, Compilation (Aggregate P/L account of banking industry): FSD, BB

ROA and ROE at end-December 2013 increased by 30 basis points and 290 basis points respectively and reached the levels of 0.9 percent and 10.7 percent respectively. This scenario is the reverse position of what happened between CY11 and CY12.

During CY12 primarily due to introduction of a stricter loan classification standard, banking sector ROA and ROE dropped by 70 and 650 basis points respectively from CY11. It is noteworthy that the total provision decreased by 46.6 percent from BDT 86.4 billion in CY12 to BDT 46.1 billion in CY13. Since there was no significant change in the tax structure in CY13, the gap between operating profit and net profit was primarily caused by a lower provision requirement. Consequently, the apparent profitable scenario of the banking industry is not supported or caused by better operating performance, but rather by changes in reporting according to a revised supervisory standard.

Chart 3.23 : Banking sector return on equity (ROE): CY13

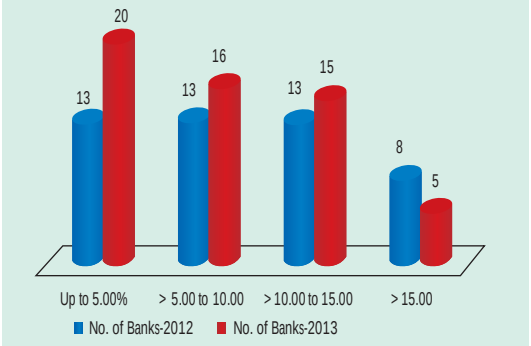
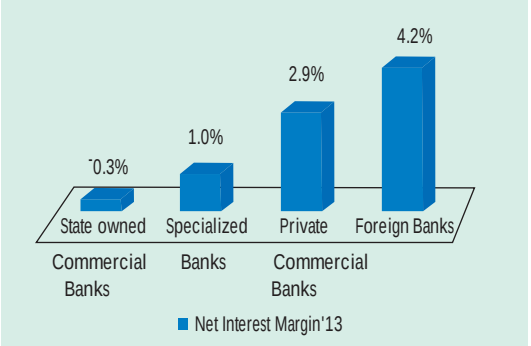


Chart 3.24 : Sector wise net-interest margin in CY13

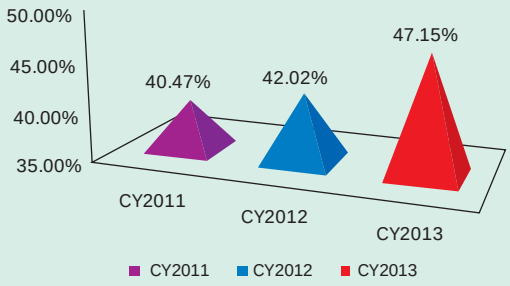


Source: Data: DOS, BB, Compilation (Aggregate P/L account of banking industry): FSD, BB

In terms of components of profitability, the net interest margin (NIM) decreased by 70 basis points from 2.8 percent in CY12 to 2.1 percent in CY13 which had a slight adverse effect on the banking sector's profitability.

The net interest margin (NIM) of foreign banks is 4.2 percent, which is higher than that of state owned commercial banks, specialized banks and private commercial banks, which stand at -0.3 percent, 1 percent and 2.9 percent respectively. It is noteworthy that the interest income for foreign banks is much higher compared with their interest expense, whereas the interest income does not exceed interest expense by a very great amount for the state owned commercial banks (in fact, the SOCBs have a negative net interest margin) and specialized banks.

Chart 3.25 : Banking sector non-interest expenses to total income



Total Income = Net Interest Income + Non- interest Income
Source: Data: DOS, BB, Compilation (Aggregate P/L account of banking industry): FSD, BB

The net interest margin for every category of banks has decreased in CY13 in comparison with that of CY12. The fact can be attributed to the changes in the composition of gross earning assets, especially the reduction in loans and advances and increase in safe liquid investments in CY13 compared with those of CY12 (loans and advances, as percentage of total assets, have been reduced to 59 percent from 62.4 percent. The ratio of non-interest expenses to total income increased by 5.13 percentage points from 42.02 percent in CY12 to 47.15 percent in CY13, attributable to proportionate decrease in total operating income compared with operating expenses. In 2013, the growth in operating expense (16.14%) was more prominent than growth in total income (3.50%). This scenario can be partially explained by the higher non-interest expense to total income ratio (65.16 percent) of the new private commercial banks. Since, they have just started their commercial operation, their total income has not grown by much, but they still have to bear higher operating expenses.

Chart 3.26 : Banking sector income by sources

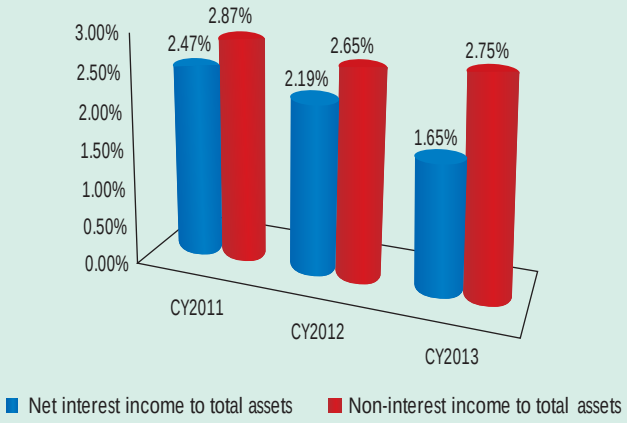
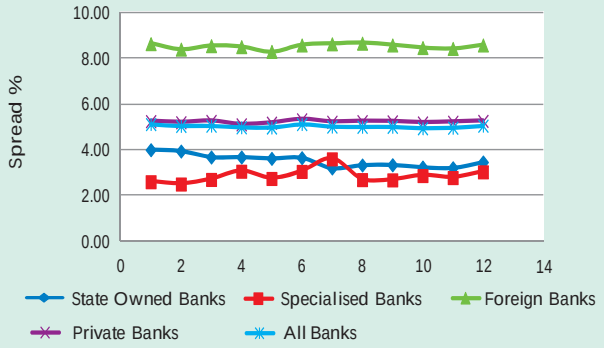


Chart 3.27 : Banking sector monthly weighted average interest rate and spread for CY13



Source: Data: Various issues of Economic Trends
Computation: FSD, BB

The ratio of net interest income to total assets decreased by 54 basis points from 2.19 percent in CY12 to 1.65 percent in CY13, and the ratio of non-interest income to total assets increased by 10 basis points from 2.65 percent in CY12 to 2.75 percent in CY13. As the graph shows the substantial decrease in net interest income and slight increase in non-interest income as percentage of total assets can be attributed to the shifting of investment funds of banks from loans and advances to investments in safe liquid assets.

The interest rate spread provides sufficient margins for banks to continue operating in the market. Interest rate spreads have, on average, decreased from 5.13 percent in January 2013 to 5.06 percent in December 2013, contributing to the slight decline in net interest margin. Bangladesh Bank (BB) has instructed all banks to reduce their spread to a level not exceeding 5.0 percent.

The weighted average spread of all banks has continued to decline following the BB's instruction over the years. However, spreads continue to remain high for Foreign Commercial Banks (FCBs), whose average spread is almost double than that of the other bank groups. The spread, at any given time, is generally a function of many factors, such as, the general level of competition in the banking sector, the amount of credit risk, the managerial efficiency of the lending process, and so forth. The spread can also fluctuate over time because of the overall level of interest-rate risk in the

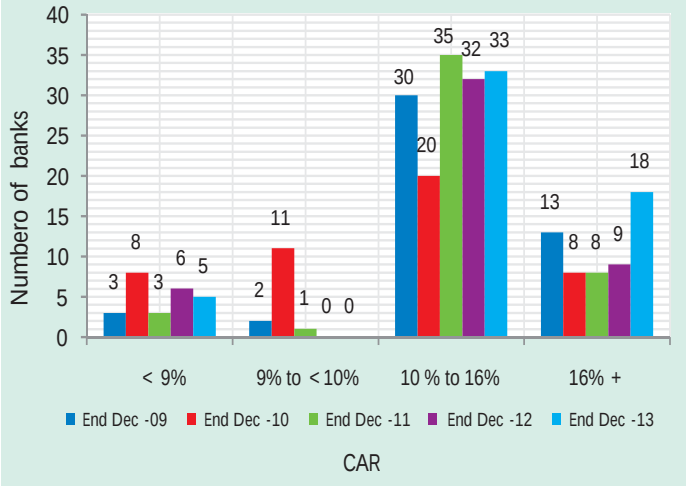
sector and movements in market interest rates. It is noteworthy that a high spread is sometime desirable for financial stability, because it makes banks more profitable. Generally, as the banking sector develops, becomes more competitive and more efficient, and faces less credit risk, the spread will tend to decline, although fluctuations in the general level of interest rates can temporarily interrupt this smooth decline. It is expected that, in the future, banks in Bangladesh will become even more efficient and selective in managing their credit risk, so that this recent observed decline will manifest itself as a long-term trend.

3.9 Capital adequacy

Compared with end-December 2012, the proportion of banks compliant with the minimum capital adequacy ratio (CAR) slightly increased as of end-December 2013; 91 percent of the scheduled banks were able to maintain their minimum capital adequacy ratios above 10 percent in line with Pillar 1 of the Basel II capital framework, compared with 87 percent at year-end 2012.

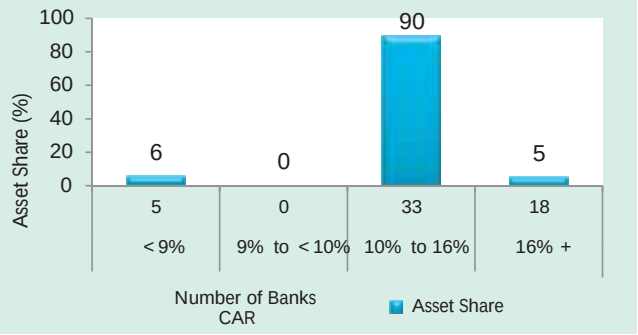
As an even more positive sign, as evident from Chart 3.20, a quite substantial share of banking assets was concentrated in the banks outside the non-compliant CAR group; 33 banks' CARs were within the range of 10-16 percent and their assets accounted for nearly 90 percent of the total banking industry's assets as of end December 2013, a fact which could be treated as an indicator of financial soundness of the banking industry. It is worth noting that banks having a capital adequacy ratio below the regulatory requirement and lying in the 'problem bank category' have been asked to make up the shortfall by increasing their paid-up capital. On the other hand, banks not lying in the stated category, but still capital- deficient, are instructed to make up the capital shortfall in any manner possible, and in some cases are asked to submit their capital plans and comply with the submitted plan within some set deadline.

Chart 3.28 : Capital adequacy ratio of the banking sector



Source: Data: DOS, BB; Computation: FSD, BB

Chart 3.29 : Asset share of banks based on CAR in CY13

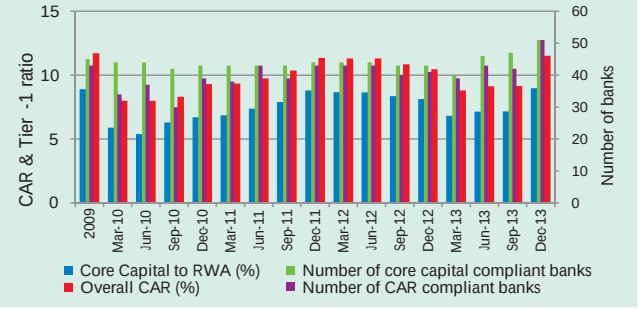


Source: Data: DOS, BB; Computation: FSD, BB

The banking sector capital adequacy improved moderately in CY13 compared with the previous year, as evident from the movements of CAR and core capital in CY13 (Chart 3.21). For instance, at end-December 2012, the capital adequacy of the banking industry was 10.5 percent; the same stood at 11.5 percent at end December 2013. This increase in industry level CAR could partly be attributed to a relaxation in the provision requirement of banks.

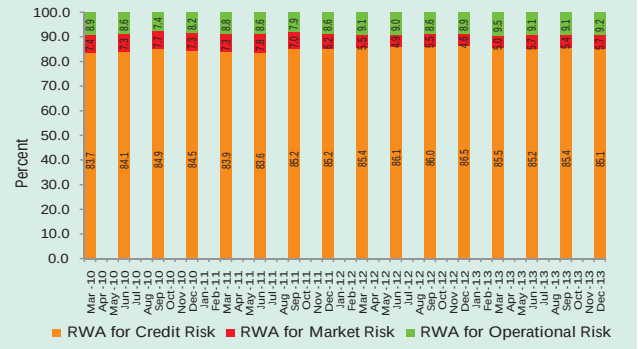
In addition, Tier-I ratios were 6.8 percent, 7.1 percent, 7.2 percent, and 9.0 percent in the first, second, third and fourth quarters of CY13 respectively. As evident, the Tier-1 ratio (i.e. the purest capital ratio) commensurate with the regulatory requirement in CY13 recorded an increasing trend in the four quarters of CY13, implying that the purest form of capital of banks was enjoying an increasing trend.

Chart 3.30 : Tier-1 ratio and overall CAR of the banking industry



As of end-December 2013, under Pillar 1 of the Basel-II capital adequacy framework, risk- weighted assets arising from credit risk accounted for by nearly 85 percent of the total industry risk-weighted assets, and the next positions were held by operational and market risks respectively (chart 3.31).

Chart 3.31 : Distribution of risk weighted assets (RWA) in CY13



Source: Data: DOS, BB; Computation: FSD, BB

Although capital ratios in Bangladesh are generally improving, when a cross-country scenario is taken into account (Table 3.2), the banking sector of the country still has to go long way, as the industry CAR of Bangladesh is still lower than that of some South Asian countries namely India, Sri Lanka and Pakistan.

Table 3.2 : International comparison of capital adequacy indicators					
Countries	CAR (%)				
	2009	2010	2011	2012	2013
India	14.0*	14.6*	13.5***	14.3*	12.7***
Pakistan	14.0	14.0	14.1**	na	na
Sri Lanka	16.1	14.9	14.5***	na	na
Bangladesh	11.7	9.3	11.4	10.5	11.5

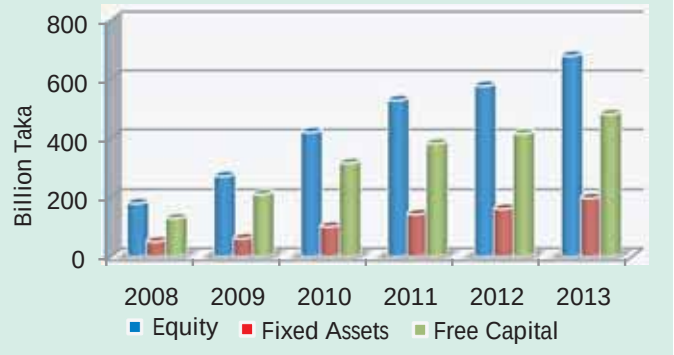
*as of end March, **as of end June, *** as of end September, na-not available
Source: RBI, SBP, CBSL, BB

3.10 Capital regulation issued by BB in CY13

BB has given recognition to the Bangladesh Credit Rating Agency Ltd. (BDRAL) as an External Credit Assessment Institution (ECAI) and provided a mapping of the company's rating in 2013.

3.11 Free capital

Chart 3.32 : Equity and free capital of the banking industry

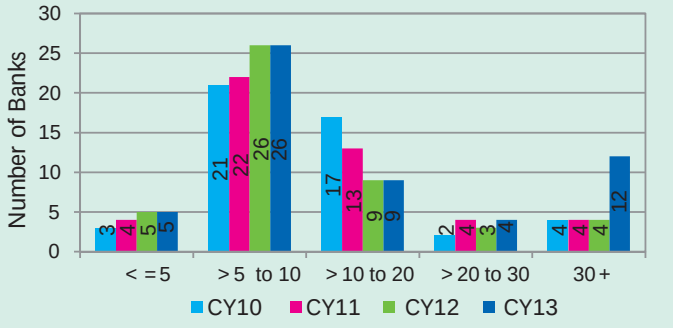


Source: Data: DOS, BB; Computation: FSD, BB

Apart from capital adequacy, the free capital of banks, defined as equity minus fixed assets, could also serve as a financial soundness indicator, especially in the event of any shock. As seen in Chart 3.32, free capital of the banking industry was in a rising trend during CY08 to CY13 implying that the amount of capital available to absorb losses was in an increasing trend.

3.12 Leverage ratio

Chart 3.33 : Leverage ratio of banks



Source: Data: DOS, BB; Computation: FSD, BB

In CY13, a majority of the banks maintained a leverage ratio (equity/total assets, not risk-weighted) higher than 5 percent. As evident from Chart 3.33, out of 56 banks, 51 had a leverage ratio higher than 5 percent.

Out of these 51 banks, 26 had a leverage ratio higher than 5 percent but less than 10 percent, and 25 banks' leverage ratios were higher than 10 percent. This distribution implies that there is still further room for some banks to improve their financial soundness in terms of this indicator.

3.13 Internal Capital Adequacy Assessment Process (ICAAP)

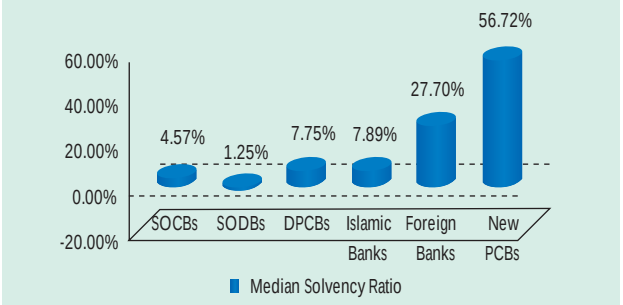
As a step towards implementation of Pillar 2 of Basel II, Bangladesh Bank (BB) developed a process document titled "Process Document for Supervisory Review Process (SRP)-Supervisory Review Evaluation Process (SREP) Dialogue on ICAAP". Under the process document, BB provided guidance to calculate required capital against a number of significant risks as per a specified format and submit the same to BB. It is mentionable that during the SREP dialogue, if a bank fails to produce their own ICAAP backed by proper evidence and rigorous review regarding risk management, the SREP team of BB will apply their prudence and also use the available information from the inspection departments with a view to determining the adequate capital of the bank.

The first SREP dialogue was initiated in 2011. Afterwards, to facilitate the SREP dialogue, a revised evaluation process and reporting formats were prepared by BB in May 2013. On the basis of those, banks were advised to submit their quantitative information regarding ICAAP as of 31 December 2011 and 31 December 2012. Based on the findings of the reports received from banks, a series of bilateral meeting with the banks was arranged by January 30, 2014.

It is noteworthy that each of the banks was advised to update the supplementary documents of 'Process Document for SRP-SREP Dialogue on ICAAP' and submit those documents to BB with Board approval by 31 March 2014. The banks also were instructed to submit a December 2013-based ICAAP report by 31 May 2014, on the basis of which, and taking into account the feedback of the SREP inspection, a formal SREP dialogue will be held in the second half of 2014.

3.14 Solvency ratio

Chart 3.34 : Solvency ratio of banks



Source: Data: DOS, BB; Computation: FSD, BB

Banking sector solvency can be assessed using the tangible leverage ratio (Tier I Capital/(Total Assets-Intangibles). The median values for the solvency ratio are shown in the graph.

As the graph shows, the solvency position of specialized development banks is a cause of concern.

The domestic private commercial banks (excluding Islamic and new banks) have a better solvency indicator than that of state-owned commercial banks, and a similar solvency ratio as Islamic banks.

The foreign banks are even more solvent backed by their sound capital base. The new banks have the highest solvency ratio among all the banks. However, they have just started their operation and now have relatively higher equity capital in comparison with their asset base.

3.15 Banking Sector Liquidity

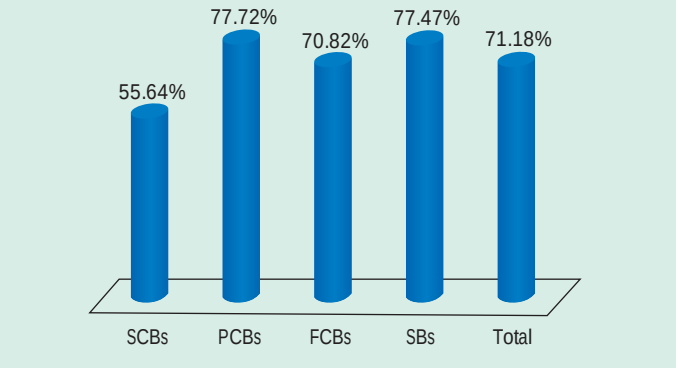
Liquidity stress was a burning issue throughout the year 2011, but from the beginning of 2012 it has been easing down due to the fact that credit growth has decreased due to various prudential stances of BB. This trend continued in CY13 as well. Moreover, the volatile political environment discouraged credit growth which also contributed to keep liquidity in a manageable position. BB is currently measuring the advance to deposit ratio (ADR)[20] as a gross measure to calculate the liquidity condition prevailing in the economy. The main function of banking business is to attract deposits from household and offer credit to businesses and make profit from the spread of interest. Deposits are the main sources of funding for the banking sector in Bangladesh in addition to the capital, reserves and borrowings. Banks mainly use their funds to provide loans and invest in debt securities. The ADR is, therefore, a useful indicator of adequacy of a bank's liquidity in Bangladesh. The smooth operation of the bank depends on how efficiently bank can make use of this fund and pay its liability accordingly.

As the relation between deposits and loans depend on the structure of domestic financial system, there is no international guideline regarding the benchmark of ADR or upper limit on ADR. Rather it depends on the domestic regulatory authority to decide on this issue. BB has from time to time changed its stance, analyzing the then-prevailing liquidity scenarios in the banking system, and recommending the level of ceiling of ADR ratios for banks. With a perceived surge in ADR in the banking system in early 2011, banks were instructed in February 2011 to cut down their ADR within a prescribed level (for conventional banks it is up to 85 percent and for Shari'ah banks it is up to 90 percent) by June 2011. BB is continuing that policy and monitoring the ADRs of banks within that framework, other than a few exceptions.

The ADR of banking industry, from the beginning of 2012, started declining from 81.1 percent in January, 2012 to 71.18 percent in December 2013. This dropping of ADR was due to the fact that the growth in deposits was higher than that of credit in 2013. Banking sector deposit and credit growth were 16.26 percent and 7.41 percent respectively in 2013.

[20] ADR is the ratio of total advances to total deposits, where advances comprise all banking advances except interbank advances and inland and foreign bill purchases when these bills are funded.

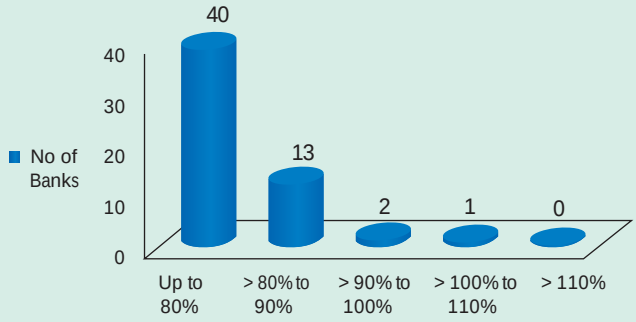
Chart 3.35 : Banking sector ADR December, 2013



Source: Data: DOS, BB; Computation: FSD, BB

It is noteworthy that the interbank money market has excess liquidity in the system, since the ADR for most of the banks is much below their limit, and the overall ADR has dropped to 71.18 percent. A volatile political environment that discouraged credit growth partially explains the scenario. As the following graph shows, 40 banks (nearly 72% of total banks) are having an ADR below 80 percent.

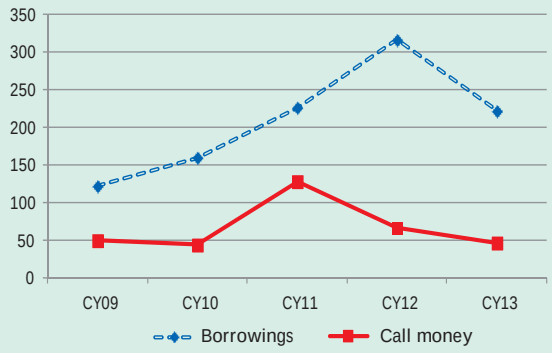
Chart 3.36 : Banking sector advance-deposit ratio: end-December 2013



Source: Data: DOS, BB; Computation: FSD, BB

The reduction in call money borrowing and investment and a stable call money rate within the lower ranges also indicates excess liquidity in the banking system. In 2013, call money borrowing decreased substantially.

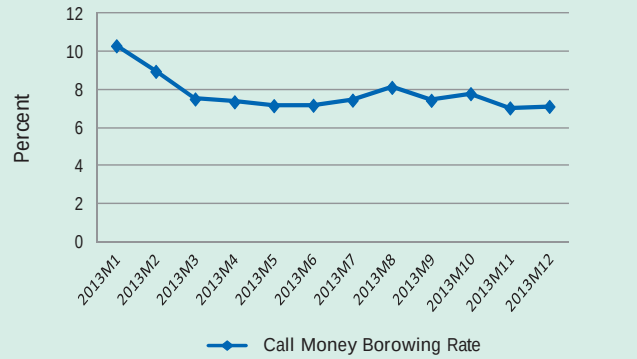
Chart 3.37 : Banking sector call money investment and borrowings



Source: Data: DOS, BB; Computation: FSD, BB

The call money rate declined from the early part of 2013 and dropped up to June 2013, after which it increased slightly and fluctuated marginally during the rest of the year. This low call money rate and reduced amount of call money borrowing indicated that the banks were able to ease down from their earlier condition of liquidity stress.

Chart 3.38 : Banking sector call money borrowings rate



Source: Data: Economic Trends, January 2014, BB;
Computation: FSD, BB.

Another very important market to assess the liquidity scenario is the repo market. This is the instrument that BB uses to inject liquidity in the banking system. From 2011 the volume and rate for repo increased substantially which also indicates liquidity stress. In 2013 the repo turnover decreased, and then increased a little during the latter half of the year, but the repo rate decreased continuously which again suggest adequate liquidity in the banking system. The relatively higher turnover might be due to fund management strategies of the banks. (For further details see chapter 7). The prevailing very low ADR, decreasing call money rates and REPO rates indicates that banking industry is currently having substantial liquidity.

3.16 Performance of Branches / Subsidiaries / Exchange House/ and Representative office of Local Banks Operating Abroad

Cross-border banking flows in the run-up to the crisis had important implications for the risks faced by international banks. Firstly, on the asset side, large banks markedly increased their foreign exposures, which increased their vulnerability to credit risk, to the extent that this reflected higher leverage. Secondly, on the liability side, banks' increasing reliance on borrowing from abroad, especially from other banks, made them more vulnerable to funding risk. And thirdly, the normal maturity risk, by borrowing 'short' and lending 'long', that banks face was exacerbated by the fact that much of the expansion of banks' balance sheets abroad was in foreign currency. Thus the banks, and in some cases economies, were vulnerable to shortages in foreign currency.

Bangladeshi banks are operating at major global financial centers spread over 20 countries through branches, subsidiaries, exchange houses and representing offices (ROs). They have extended their network at oversees, and at end-December 2013 had 7 branches, 10 representative offices and 65 exchange houses.

Table 3.3 : List of bank branches abroad			
Sl. No.	Name of Bank	Location of Bank Branches	Country
1.	Sonali Bank Limited	i) Kolkata	India
		ii) Siliguri	
2.	AB Bank Limited	i) Mumbai	
3.	Janata Bank Limited	i) Abu Dhabi	UAE
		ii) Dubai	
		iii) Sarjah	
		iv) Al-Ain	

Source: Banking Regulation and Policy Department (BRPD)

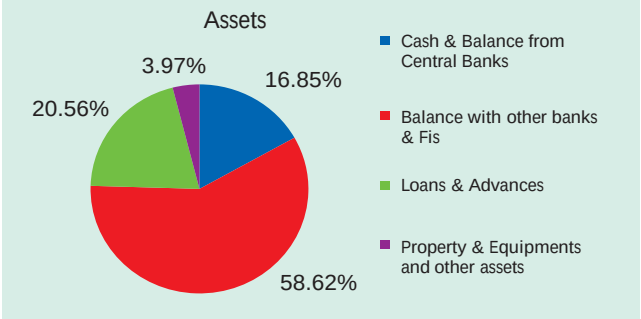
Apart from the existing 7(seven) overseas branches, AB Bank Ltd. will soon open a branch in Calcutta, and Mercantile Bank Ltd obtained permission to open a branch in Agartola. In a similar manner as domestic branches, overseas branches of local banks extends their services there as deposit-taker and loan provider. In addition, they are actively providing smooth remittance services to expatriate Bangladeshis and extending different ancillary services including international trade service to Bangladeshi importers and exporters.

Assets and Liabilities Structure of Overseas Operations

The total assets of overseas branches of Bangladeshi banks were USD 19.24 million as of December 31, 2013 which was only 0.9 percent of total industry assets and USD 2.09 million higher than that of the previous year. This enhancement is mainly due to the increase in customer credit by USD 0.43 million and balance with other banks and FIs by USD 1.66 million over the previous year. This asset growth was funded mainly by deposits and other accounts (USD 1.94 million). Two state-owned commercial banks contributed around 85 percent of the total overseas assets of local banks.

Placements of those branches with central bank and interbank market contributed the major part of their total assets, which together account for around 58.6 percent. In total assets, the share of loans and advances are only 20.6 percent.

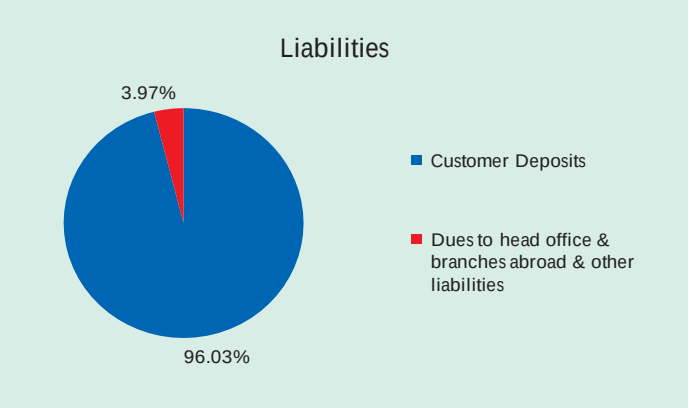
Chart 3.39 : Assets composition of Bangladeshi banks in abroad as on 31-12-2013



Source: Scheduled banks

Various deposit accounts, on the other hand, are the major part of the liabilities of overseas branches of Bangladeshi banks, contributing around 96 percent of total liabilities. A very insignificant portion, nearly 4 percent, of liabilities is owed to head office and other branches abroad. The maturity profile of deposits and the loans have not

Chart 3.40 : Liabilities composition of Bangladeshi banks in abroad as on 31-12-2013



Source: Scheduled banks

been analyzed and thus, indeed, no maturity risk has been observed. However, no such maturity risk is likely to be expected, as only one-fifth of assets are extended as loans and advances against almost 96 percent of customer deposits, and nearly 77 percent of assets are maintained as liquidity in cash and balance with other banks and FIs.

3.17 Profitability of Overseas operations

The aggregate net profit of the overseas branches[21] of Bangladeshi banks during CY13 was USD 3.35 million, which is 8.6 percent higher than that of previous year. This increase in net profit growth resulted in an increased ROA from 1.72 percent to 1.76 percent at the end of December 2013. Two state-owned commercial banks with their six overseas branches contributed 60.8 percent of total overseas profit, whereas one private commercial bank with one branch contributed 39.2 percent of total overseas profit.

Notwithstanding its potential considerable long-run benefits, cross-border bank credit has been especially pro-cyclical and volatile in the past. It played a material part in the build-up of vulnerabilities in advance of the recent crisis, and in transmitting the impact of the bust. Policymakers need to take steps to ensure that they can properly monitor these flows, both from the point of view of the recipient country and of the global system as a whole. National and international authorities could also consider whether new facilities or greater international policy co-ordination might be warranted, both to prevent and respond to the vulnerabilities that cross-border bank credit can generate. However, shares of assets and liabilities of overseas operation are still insignificant, as they represent less than 1 percent of the industry assets and liabilities and possess no threats and vulnerabilities to the system yet.

[21] Balances denominated in foreign currencies are translated into USD and recorded at rates of exchange found from www.oanda.com as on 31st December 2013.

3.18 Islamic banking

Islamic banks, i.e., Shari'ah banks have been operating in Bangladesh for last three decades side by side with the conventional banks. These banks have certain similarities to the conventional banking system due to working in a similar financial environment, although in terms of operational risks, the challenges are more complex for Islamic banks owing to their particular contractual and financial transactions. Currently, 8 banks are operating as full-fledged Islamic banks, of which one is newly established. Besides, conventional banks are offering Islamic banking services through setting up Islamic banking branches and Islamic windows. Islamic banks are now focusing on a wider horizon, encompassing not only the conventional Shari'ah products but also products geared to SMEs, microfinance, and financing in the agriculture sectors.

3.18.1 Growth of Islamic banking

Though Islamic banks in the banking sector showed modest growth in 2013 in terms of total assets, total deposits, total investments and advances, the rate of growth is considerably lower compared with that of 2012.

Chart 3.41 : Growth of islamic banking: end-December

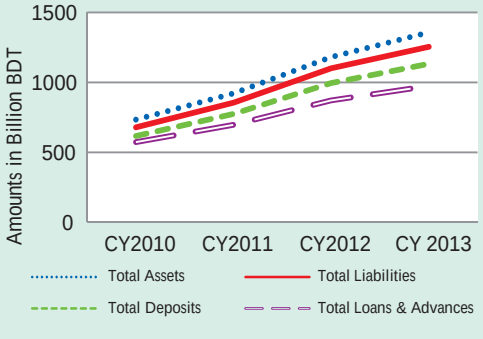
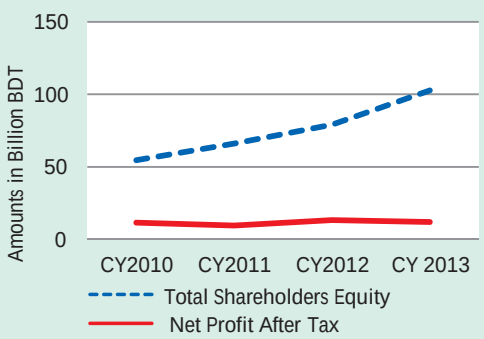


Chart 3.42 : Growth of islamic banking: end-December



Note: Excluding Islamic banking branches/windows of conventional banks
Source: Data: DOS, BB; Computation: FSD, BB

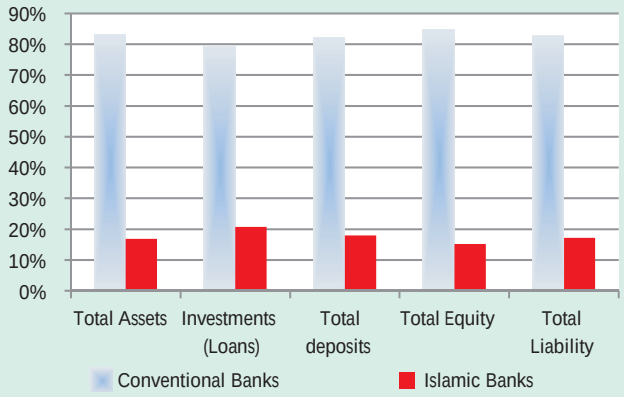
The above graphs illustrate moderate growth of Islamic banking in CY13, as investments (loan and advances) grew by 12 percent (25 percent in CY12); the liability base grew by 14 percent (28.6 percent in CY12) and deposits grew by 14 percent (28.3 percent in CY12). So, like conventional banks, the performances of Islamic banks were quite subdued in 2013, a result that might be attributed to the vulnerable business environment in 2013. The growth in loans and advances of the overall industry (7.6 percent) is less than the growth for Islamic banks, but the industry growth in deposits (16.1 percent) is higher compared with Islamic banks. The relatively higher industry growth in deposits might be attributed to deposit-seeking

activities of the newly established banks, most of which are conventional banks. Besides, net income also showed a drop of 9.7 percent in CY13 compared with a huge positive growth of 37.5 percent in CY12. Several factors might explain the change in growth scenario in profitability for the Islamic banks in CY13. Like conventional banks, the Islamic banks also might have found it difficult to make profitable investments in a volatile year, and part of the extensive growth in profitability achieved in CY12 turned out to be non-sustainable.

3.18.2 Market share of Islamic banks

Although the Islamic banking industry has been growing faster than the conventional banks, Shari'ah banks are still a minor proportion (grossly one-fifth) of the total banking sector. Compared with the overall banking industry, the combined share of Islamic banks (excluding Islamic banking branches/windows of conventional banks) is 17 percent in assets, 20.7 percent in investments (loans), 18 percent in deposits, 15.2 percent in equity and 17.2 percent in liabilities as of end-December 2013. There has been a slight increase in most of the ratios in 2013. Despite the inception of 9 new banks (most of which are conventional banks), the Islamic banks increased their market share in the banking industry.

Chart 3.43 : Market share of islamic banks and the banking sector in CY13



Source: Data: DOS, BB; Computation: FSD, BB

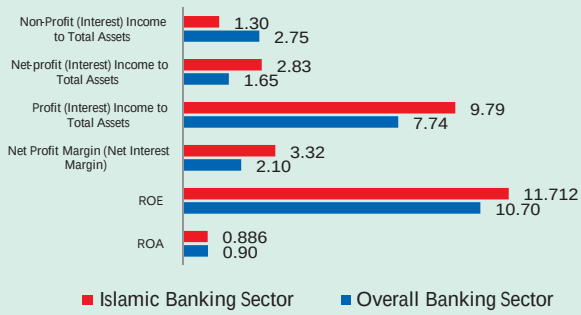
3.18.3 Profitability of Islamic banks

Compared with CY12, the profitability of Islamic banks dropped in CY13. Instead of the 37.5 percent growth achieved in net income in CY12, the Islamic banks' profits dropped by 9.7 percent in CY13. Like conventional banks, the Islamic banks also might have suffered from a lack of profitable investment options in 2013, and part of the extensive growth in profitability achieved in CY12 turned out to be non-sustainable. It should be considered that the high growth in CY12 was achieved after a decline in net income of 16.8 percent in CY11, when the base net income figure was quite low. So, it is expected that a similar growth rate will not be sustainable in subsequent years once the net income figure is adjusted upward. The key profitability indicators such as ROA show that Islamic banks' profitability is lower compared with

the overall banking industry. However, that performance is affected by the presence of one problem bank in the Islamic bank category. If that particular problem bank is ignored, then the profitability of Islamic banks as measured by both ROA and ROE is higher compared with the overall banking industry.

Islamic banks are having superior performance in generating profit (interest) income by efficiently using its assets. Since these banks have less stringent liquidity requirements, their investable fund is relatively large, which helps to generate more profit income compared with conventional banks.

Chart 3.44 : Selected income ratios for islamic banks and banking industry



Net profit margin = net profit income/ Gross earning assets
Gross earning assets = Balance with other banks and FIs + Investment in securities + Loans and advances
Source: Data: DOS, BB; Computation: FSD, BB

During CY13, Islamic banks contributed 16.61 percent of profit to the industry. The profit income[22] to total assets ratio of Islamic banks reached 9.79 percent, which is higher than that of the industry average of 7.74 percent. On the other hand, the non-profit income to total assets ratio was only 1.3 percent as compared with the industrial average of 2.75 percent, representing comparatively lower income from off-balance sheet (OBS) transactions and service and fee-based incomes. The ROA of the Islamic banking industry is lower at 0.89 compared with the overall banking industry of 0.90 in CY13, indicating a relatively inefficient use of assets by the Shari'ah compliant banks. The relative inefficiency might be due to the outlier values of one problem bank. If one problem bank is excluded from the set of Islamic banks, the other Islamic banks as a whole outperformed the overall banking industry. The ROE of the Islamic banking industry, on the other hand, stands at 11.71 percent, which is higher than that of the overall banking industry ROE of 10.70 percent in CY13, indicating the earnings of Islamic banks were higher compared with their equity position. However, part of it may be due to the negative equity[23] of an Islamic bank which has been operating under the restructuring program of Bangladesh Bank. Non-performing investment, i.e., the ratio

[22] For Islamic Shari'ah based banks profit income means income (interest) from investment (loans and advances).

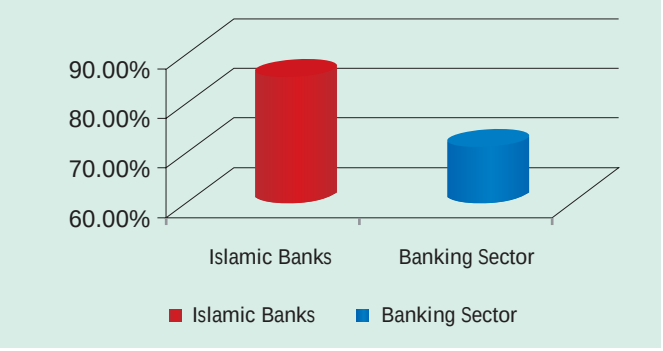
[23] Since the negative equity proportionately reduced the total equity of the Islamic banks more than that of industry.

of classified investment to total investment of Islamic banks, is only 4.2 percent, whereas for the overall banking industry it is 8.9 percent. However, if only domestic private banks are considered then the ratio drops to 4.54 percent which indicates that Islamic banks have only slightly less NPL compared with their closest peer group. Classified investment to total capital for Islamic banks is 39 percent, while it is 59.8 percent for conventional banks. These indicators may show better investment management by the Islamic banks in Bangladesh.

3.18.4 Islamic banks' liquidity

In recognition of the low volume of Shari'ah-compliant SLR eligible instruments available in the marketplace, Bangladesh Bank has generally allowed Islamic banks to maintain concessionary SLR requirements compared with other conventional banks. Islamic banks comply with the SLR requirements of 11.5 percent of their total demand and time liabilities.

Chart 3.45 : IDR (ADR) of islamic banking and the overall banking sector as on December 2013



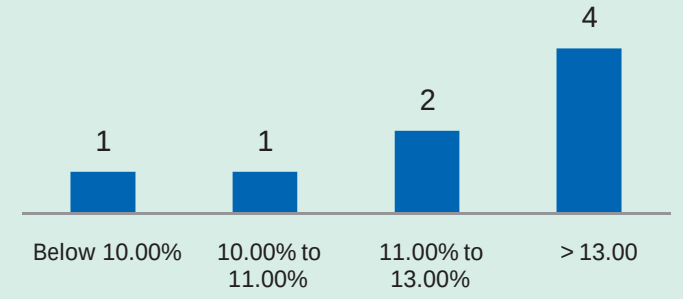
Source: Data: DOS, BB; Computation: FSD, BB

The Investment-Deposit Ratio (IDR) of full-fledged Islamic banks is 85.1 percent as of end-December 2013, a slight lowering from 86.7 percent at the end December 2012 and somewhat below the recommended maximum level of 90 percent.

However, the ADR of the banking industry is 71.18 percent and domestic private commercial banks are 77.72 percent. These figures are low due to a higher SLR requirement for conventional banks. Since there are limited sources of Shari'ah-compliant funds, Islamic banks can borrow funds either from the Islamic inter-bank money market, which came into existence in 2012, or from the "Islamic Investment Bond's Fund" issued by the Bangladesh Government. Since the IDR of Islamic banks are below the recommended maximum level of 90 percent, it can be assessed that no liquidity stress existed in these banks in CY13.

3.18.5 Capital adequacy of Islamic Banks

Chart 3.46 : Capital adequacy ratio of islamic banks



Note: Excluding Islamic banking branches/windows of conventional bank

Source: Data: DOS, BB; Computation: FSD, BB

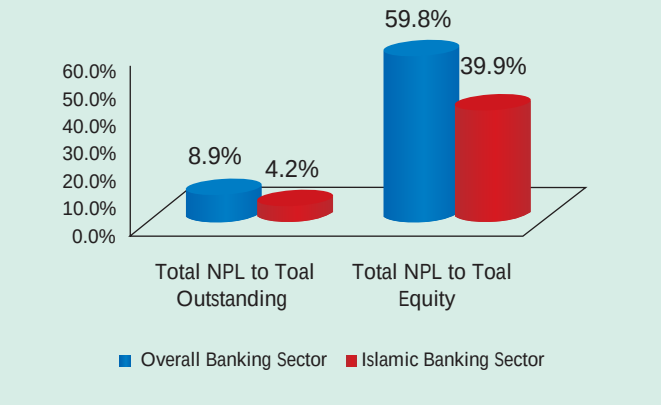
Given the minimum capital requirement (MCR) of 10 percent under the Basel-II accord for CY13, the significantly higher CARs of 8 Islamic banks in the banking sector indicate both the financial strength and ample compliance of minimum capital requirements (MCR).

The stronger capital base ensures that Islamic banks are well equipped to meet various kinds of shocks, if and when they arise. However, several years ago, one Islamic bank's CAR turned into negative on account of a historical huge cumulative loss and provision shortfall and changes in its ownership within a short span of time. This bank has been operating under a restructuring plan since 2008. It is noteworthy that CAR of Islamic banks other than the problem bank is even more impressive. Among 8 there are 6 banks having CAR more than 11 percent in CY13.

3.18.6 Classified investment of Islamic banks

Classified investments to total investments ratio of Islamic banks was 4.2 percent and it showed a relatively better position as compared with 8.9 percent for the overall banking industry in CY13. The classified investment to capital ratio of 39.88 percent for Islamic banks as compared with 59.8 percent for the overall banking industry indicates that Islamic banks are more efficient in monitoring their investments (loans) compared with the overall banking industry.

Chart 3.47 : Classified investments (loans) of islamic banks and the banking industry in CY13



Note: Excluding Islamic banking branches/windows of conventional banks

Source: Data: DOS, BB; Computation: FSD, BB.

From the perspective of stability in the financial system, Islamic banks are less vulnerable to risk than conventional banks. They are able to pass the negative shocks on the asset side (Musharaka a/c) to the investment depositors (Mudaraba a/c).

The risk-sharing arrangements on the deposit side give secondary protection to the bank, in addition to its book capital. Bangladesh has a large population of Muslim people, and among them, the embrace of Islamic banking is increasing at a faster rate due to their faith. It is indeed desirable to encourage Islamic banks to develop new products for their customers who are willing to invest their savings in the Shari'ah based products; however, these new products necessitate maintaining close monitoring so that no adverse shocks can arise from their expanding horizons.

Chapter 4

Banking Sector Risks

4.1 Credit risk structure in Bangladesh

Credit risk concerns the possibility of financial losses due to counterparties' inability or unwillingness to make contractually-agreed-upon payments. In the most radical scenario of deterioration in credit quality, this inability or unwillingness becomes a default event. Operationally, for medium to large firms, default is normally triggered by a failure of the firm to meet its debt servicing obligations, which usually quickly leads to bankruptcy proceedings. Thus default is considered an exceptional event after which a firm ceases to operate as a viable concern, and which results in large financial losses to some security holders, including banks and other financial institutions which have provided funds through loans, or have guaranteed the firms' obligations.

Analyses of banking industry data, at the end December 2013, indicate that the share of risk weighted assets (RWA) assigned to credit risk was 85 percent of the total RWA of the banking system, whereas the RWA associated with market risk and operational risk were only 6 and 9 percent respectively. RWA for credit risk as ratio of total RWA has decreased by 1 percentage point compared with that of the previous year, while market risk to total RWA has increased by 1 percentage point. However, the share of operational risk has remained unchanged compared with that of the previous year. While credit risk in relative term decreased because of lower credit growth, market risk increased due to an increase in the prices of equity instruments. The capital adequacy ratio of the banking sector stood at 11.5 percent, which were 100 basis points higher than that of the previous year. This increase in the capital adequacy ratio could partly be attributed to a decrease in required provisions (which increases the numerator) and a moderate increase in RWA (which contributed relatively less increases the denominator) of banks. Moreover, 7 (seven) new banks were added in the system in 2013 with at least BDT 4 billion of paid up capital each and contributed with less RWA due to acquiring a little amount of asset in a short span of time. In monetary terms, the banks' RWA for credit risks was BDT 4244.9 billion, while the same for market and operational risks were BDT 298.0 and BDT 455.3 billion respectively. The top 5 banks' credit risk accounted for slightly over a quarter of aggregate credit risk while the top 10 banks' possess a bit higher than forty percent, both declined somewhat from the previous year. However, the industry credit risk has been increased comparing with the previous year. This risk is mostly concentrated in the banking book.

Table 4.1 : Credit risk in the banking system		
Banks	Credit Risk as Percentage of Industry Credit Risk	Credit Risk as Percentage of Overall Industry Risk
Top 5 Banks	25.5%	24.6%
Top 10 Banks	43.0%	41.4%

Source: Data: DOS, BB; Computation: FSD, BB

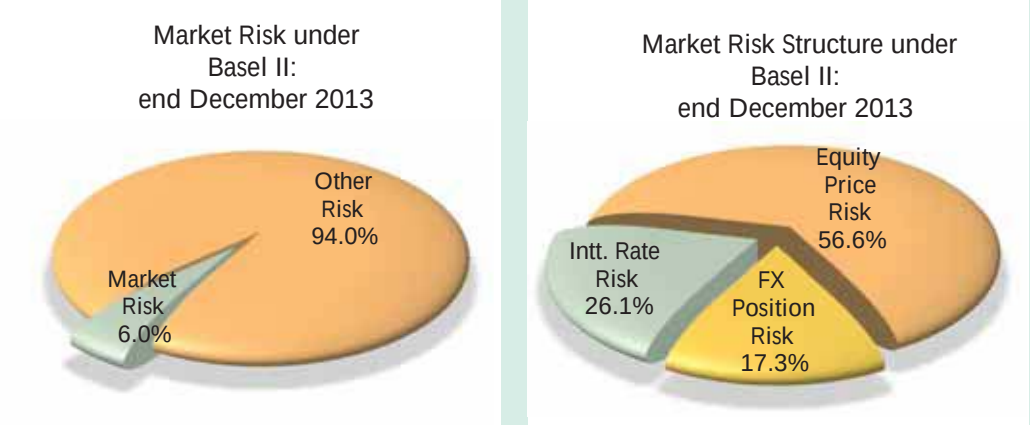
Chart 4.1 : Credit risk structure

Source: Data: DOS, BB; Computation: FSD, BB

4.2 Market risk structure under Basel II

After the turbulence in securities market during 2011, market sentiment did not improve enough to expect a recovery and return to normal levels of volatility in turnover during the year 2013. A moderate degree of volatility in domestic financial markets during CY13 contributed to the increase in market risk for banks. However, its impact on their financial performance is likely to be well-contained, given BB's stringent prudential requirements on various market risk exposures. The market risk is generally quantified based on assessment of the sensitivity of a bank's earnings or the economic value of its capital to adverse changes in interest rates, foreign exchange rates, commodity prices or equity prices. Besides, the ability of management to identify, measure, monitor and control exposure to the market risk, given the bank's size, complexity and risk profile also affect the market risk. The direct impact of three major components of market risk including interest rate risk, exchange rate risk and equity price risk is analyzed in the following sections:

Chart 4.2 : Market risk structure



Source: Data: DOS, BB; Computation: FSD, BB

4.2.1 Interest rate risk

Data as of end-December 2013 indicates that the share of risk weighted assets (RWA) assigned to interest rate risk (IRR) was only 1.6 percent of total risk weighted assets in the banking system, while IRR contributes 26.1 percent of the RWA related to overall market risk. The banks' capital charge for interest rate risk was BDT 7.8 billion at end December 2013, up from BDT 5.4 billion at end-December 2012. Only 10 banks (18 percent of the industry) contained 95 percent of industry interest rate risk and the remaining 46 banks (82 percent of the industry) materially contained no or insignificant IRR. It is noteworthy that three state-owned commercial banks and two private commercial banks were ranked as the top 5 in capital charge for IRR in the banking system. It is to mention that both the top 5 and top 10 banks, at end-December 2013, displayed more IRR compared with that of the previous year due to increase of trading book assets by 60 percent as well as adding of longer maturity instruments in the book. This IRR has been arising from the trading book for their trading activities. IRR in the banking book may also arise from a bank's core banking activities. Basel II also provides regulators with the discretion to require banks to hold capital for banking book IRR. The Basel Committee recommends treating IRR in the banking book under Pillar 2. BB, same as most international regulators, plans to accept only the economic value approach to measure IRR in the banking book. However, the net interest income approach to measuring and managing IRR is currently the primary focus of banks in Bangladesh.

Table 4.2.1 : Interest rate risk in the banking system			
Banks	Interest Rate Risk	Share in Market Risk	Share in Overall Risk
Top 5 Banks	67.6%	16.4%	1.0%
Top 10 Banks	94.9%	23.0%	1.4%

Source: Data: DOS, BB; Computation: FSD, BB

4.2.2 Exchange rate risk

Exchange rate risk is another important source of market risk, which is primarily driven by banks' investments in FX-denominated assets, acceptance of FX-denominated liabilities, and adverse movement in exchange rates. Bangladesh Bank, to limit the exchange rate risk, instructs banks not to expose their net open aggregate FX position, either in long or short, more than 15 percent of their regulatory capital. However, net open FX position limit expresses in an amount calculated on a particular reference date and continues until further reviews. Data as of end-December 2013 indicates that the share of RWA assigned to exchange rate risk was 1 percent of total risk weighted assets in the banking system, whereas it is 17.3 percent of the market risk. The banks' capital charge for exchange rate risk was BDT 5.1 billion, up from BDT 4.4 billion at end-December 2012. However, only 10 banks (18 present of the industry) contained more than 70 percent of industry exchange rate risk and the remaining 46 banks (82 percent of the industry) contained the remaining less than 30 percent of exchange rate risk in the banking system. In particular, two state-owned commercial banks and two private commercial banks and a foreign bank were represented in the top 5 positions with regard to exchange rate risk.

Table 4.2.2 : Exchange rate risk in the banking system			
Banks	Exchange Rate Risk	Share in Market Risk	Share in Overall Risk
Top 5 Banks	56.8%	10.5%	0.6%
Top 10 Banks	72.1%	13.3%	0.8%

4.2.3 Equity price risk

The third important source of market risk is equity price risk, which is primarily driven by banks' investments in equities and adverse movement in equity prices, in addition to the indirect exposure from the quantum of bank loans collateralized by shares. It is noteworthy that Bangladesh Bank (BB) raised a firewall between banks and their merchant banking subsidiaries in 2009 to protect

the banking sector from the adverse effect from the stock market debacle. In spite of this firewall, many banks experienced losses from their exposure. Reforms[24] in the capital market have been rolled out and the market has gained greater confidence in line with increasing traction of the new policy and regulatory incentives[25]. It is noteworthy that the banks were advised[26] to bring down their overall capital market exposure[27] under 25 per cent of total capital[28] by July 21, 2016 to minimize risk in investment portfolios. It is expected that both the central bank and the individual banks would play by the rules and help the market to grow at a regular pace adjusting their capital market exposures gradually without hindering the activities of the market within the stipulated time frame. Then the proposed limit on banks' exposure to stock market might prove helpful, provided that the central bank keeps a close and constant watch on the flow of funds to the market from the banking sector. The banks were instructed to comply with the latest circular[29] and circular letter[30] regarding capital market exposure limit, and submit report on their share-holding position on monthly basis in a prescribed form to the BB's Department of Off-site Supervision before the 10th of each month.

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[24] The government of Bangladesh embarked on a programme of meaningful reforms, d partnering with the Asian Development Bank (ADB) under the Second Capital Markets Development Programme (CMDP2) in November 2012.

[25] For details refer to Chapter 7.

[26] The Bangladesh Bank (BB) issued a directive conveying the Bank Company (Amended) Act 2013 (BRPD Circular Letter No. 15) on 19 August 2013 and asked the commercial banks to take effective measures to adjust their share market investment within the prescribed limit and timeframe allowed under section 26(2) of the said law.

[27] While calculating the banks' total investment in capital market will be considered the market value of investment to all types of shares, debentures, corporate bonds, mutual fund units and other securities owned by them, loans or equity investment or placement to own subsidiaries directly or indirectly involved with capital market activities, loans to other companies involve with merchant banking and brokerage activities and stock dealers.

[28] The new law, the Bank Company (Amended) Act, 2013, defines total capital comprises of four components - paid up capital, balance in share premium account, statutory reserve and retained earnings.

[29] DOS Circular No. 02 dated 16 September 2013

[30] DOS Circular Letter No. 07 dated 25 February 2014.

Table 4.2.3 : Equity price risk in the banking system			
Banks	Equity Price Risk	Share in Market Risk	Share in Overall Risk
Top 5 Banks	48.6%	30.2%	1.8%
Top 10 Banks	71.0%	44.2%	2.6%

Source: Data: DOS, BB; Computation: FSD, BB

Data as of end-December 2013 indicates that the share of RWA assigned to equity price risk was a bit higher than 3 percent of total RWA in the banking system, whereas it is 56.6 percent of the market risk. The banks' capital charge for equity price risk was nearly BDT 16.9 billion at end December 2013, essentially unchanged from 17.0 billion at end December 2012. The top 10 banks contained 71 percent of industry equity price risk and the remaining 46 banks materially contain the remaining 29 percent risk from the movement of equity prices. However, the top 10 banks, at end-December 2012, were exposed to 70 percent of industry equity price risk. It has been noticed that these top banks, at end- December 2013, contained almost the same amount of risk as compared with end-December 2012. Moreover, it is noteworthy that four state-owned commercial banks (SCBs) and one specialized bank are the ones ranked in the top 5 positions for equity price risk. Therefore, with the local market's increasing integration with the global market is seen in volatility or fluctuation of interest rates and exchange rates of currencies which significantly affect/influence the overall risk management strategies of commercial banks. The Bangladesh Bank in its "Core Risk Management Guidelines on Foreign Exchange Risk' has suggested the risk management process including segregation of duties among the treasury dealing officials, front office staffs, back office staffs. Moreover, to ensure systematic monitoring and controlling, the treasury transaction booking, accounting and monitoring process need to be automated.

4.3 Operational risk

Operational risk often arises in the presence of other type of risk, and the size of an operational risk event may be significantly exacerbated by market or credit risk forces. The Basel II Capital Accord requires banks to meet a capital requirement for operational risk as part of an overall risk-based capital framework. Three distinct options for calculating operational risk charges are proposed (Basic Indicator Approach, Standardized Approach, and Advanced Measurement Approaches), reflecting increasing levels of risk sensitivity. Banks and Non-bank Financial Institutions (NBFIs) are now following the Basic Indicator Approach, although they are allowed to shift to the Standardized Approach subject to the attainment of some qualifying criteria. Moreover, any institution should choose to calculate their

operational risk capital even in the absence of a regulatory requirement, as they may wish to include the operational risk capital in their strategic planning and capital allocation for strategic and business reasons. No banks and NBFIs in Bangladesh, however, have adopted such types of approach.

Operational risk could arise from inadequate or failed processes, people and systems or from external events. All types of operational risks are observed in the banking system of Bangladesh. Management of operational risks is not a new practice. However, what is relatively new is the view of operational risk management as a comprehensive practice comparable to the management of credit and market risk. In recent days, banking system of Bangladesh experienced larger losses for operational failures or lapses than for credit losses. The country's biggest banking scam, the Hallmark scam, originated in a state-owned commercial bank and siphoned out billions of Taka employing fraudulent activities. In the aftermath of noticing such operational failure Bangladesh Bank devised several systems and mechanisms to check such type of transactions and instructed the banks to develop their business process with governance and highest ethical standards meticulously following due diligence in the banking norms and practices. Banks were instructed to put extraordinary focus on operational excellence, more precisely to put in place a system, process, and platform to make sure that the bank, customers and shareholders' money is safe with them and there is no worry over possible loss of their money due to weak operational standard in banks.

Table 4.3 : Operational risk (OR) under Basel II basic indicator approach

Banks	Share in Industry Operational Risk	Share in Industry Overall Risk
Top 5 Banks (9%)	24.5%	2.2%
Top 10 Banks (18%)	35.1%	3.1%

Source: Data: DOS, BB; Computation: FSD, BB

Data as of end-December 2013 indicates that the share of RWA assigned to operational risk was 9.2 percent of the total RWA of the banking system, which is 1.6 times higher than that of the RWA against market risk in the same time period. Given the capital adequacy ratio of the banking sector at 11.5 percent, the banks' capital charge for operational risk was BDT 51.9 billion at end-December 2013. Ten banks (18 percent of the industry) contained almost 35 percent of industry operational risk and the remaining 46 banks contained 65 percent of operational risk. At end-December 2013, the top ten banks possessed almost the same share of total operational risk as at end-December 2012.

In 2013, a few cases of internal/external fraud, with high severity and alarming for the banking system, were observed and raised the question of whether the maintained capital against operational risk under the Basic Indicator Approach of Basel II is sufficient or not. In sum, although banks are maintaining capital for operational risk according to the Basic Indicator Approach, a series of isolated, infrequent operational incidents occurred and became a source of concern for both the banking system and the central bank for building a comprehensive capital charge framework. Sophisticated techniques for measuring capital charges under Basel II and building a database on actual loss events are, indeed, required to adopt to withstand challenges faced by the regulator and banks for managing such types of operational risks.

4.4 Risk Measurement

Ratings increase systemic risk and may be pro-cyclical[31], helping fuel investments in good times and accelerating market losses in bad times. Ensuring financial stability by reducing the potential pro-cyclicality and systemic risk stemming from credit rating agencies[32] (CRAs) is, however, an important objective of financial regulation. Financial markets have increasingly relied on ratings, and downgrades in ratings have led to systemic market losses and increased illiquidity. Thus, indeed, the use of rating maps and stress-tests to assess the systemic risk of ratings, and increased capital or liquidity buffers are required to manage such risk.

Credit rating agencies (CRAs) have played a key role in the origins of almost of every crisis prompting calls for their regulation. In spite of the systemic risk inherent to ratings, current efforts to regulate CRAs focus mainly on micro-prudential issues and typically aim to reduce conflicts of interest and increase transparency and competition. In contrast, macro-prudential regulation is necessary to address the systemic risk inherent to ratings. Rating agencies use different approaches in forming and publishing their opinions about credit risk. Some agencies use analysts, some use mathematical models, and some use a combination of both. As rating agency models differ with regards to their criteria, processes, and ratings definitions, users of ratings should consider such differences if they are using credit ratings as benchmarks. To

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[31] Sy, Amadou N.R. (2009), "The Systemic Regulation of Credit Rating Agencies and Rated Markets." IMF Working Paper WP/09/129 June 2009 IMF Institute.

[32] Credit Rating Agencies (CRAs) are licensed from Bangladesh Securities and Exchange Commission (BSEC) and External Credit Assessment Institutions (ECAIs) are CRAs those recognized by Bangladesh Bank evaluating on some pre announced criteria for assessing credit extended to the corporate and Small and Medium Enterprises (SMEs) for the calculation of risk weights under Basel II risk based capital adequacy framework.

this end, BB is guiding the rating companies to prepare their rating notches on the basis of a 'Credit Rating Grading Manual (CRGM) issued by BB'.

Rating crises, unanticipated and abrupt credit rating downgrades, are quite common and in the past 22 years there has been observed about one rating crisis in every three years. CRAs usually revise, as the consequences of a rating crisis, their methodologies that could lead to further downgrades. CRAs also provide credible ratings for safeguarding their reputation.

Ratings are mere opinions about credit risk published by a rating agency. It should not be viewed as assurances of credit quality or exact measures of the likelihood of default. It denotes a relative level of credit risk that reflects an opinion of the creditworthiness of an obligor. It expresses opinions about the ability and willingness of an obligor, such as a corporate, to meet its financial obligations in accordance with the terms of those obligations.

The standardized approach to credit risk in Basel II, the framework for banks' regulatory capital adopted by Bangladesh, relies partially on credit ratings of borrowers assigned by external credit assessment institutions (ECAIs) to compute risk weights in determining banks' required regulatory capital for credit risk. Banking regulators, under the Basel II agreement, can allow banks to use credit ratings from certain approved credit rating companies when calculating their capital requirements. Recognition and validation of a particular ECAI's assessments are the responsibility of BB, but the choice of the identity and number of ECAIs that banks work with is left to its discretion. Such discretion may create differences in capital requirements depending on the ECAIs chosen by banks to risk-weight their exposures. Credit ratings are a subjective assessment of counterparty's probability of default and as such differ across ECAIs because of differences in opinion, methodology, rating scale, etc. Moreover, differences in coverage are likely to create differences in capital requirements because counterparties which are not rated by an ECAI are assigned a risk-weight by default in Basel II; one bank may have lower capital requirements than another because more of its borrowers have been rated, even though the intrinsic credit risk might be the same.

Basel II puts great emphasis on external ratings, including from rating agencies, to quantify credit risks, but it also allows financial institutions to use their internal risk ratings in the internal ratings-based approach, which has not yet been adopted in Bangladesh. In Bangladesh, the Securities and Exchange Commission (SEC) enacted the Credit Rating Companies (CRC) Rules, 1996 to establish a mandatory rating process for some type of issues and debt instruments. Apart from this, according to the Bangladesh Insurance Law, insurance companies are also required to be rated

annually. Under the CRC Rules all issues of debt securities or public issue of shares (including rights shares) at a premium shall require a credit rating. Thus, banks and NBFIs listed in the stock market need to be rated. Moreover, banks and NBFIs can use ratings of corporate securities as a benchmark of measuring risk in lending to these same corporations under the adopted frameworks of Basel II.

As for small and medium-sized enterprises (SMEs), Bangladesh Bank made the amendments in its Basel II guidelines and incorporated credit rating of SME exposures from late 2013. In the first phase, Bangladesh Bank mapped the SME rating notches of the Bangladesh Rating Agency Limited (BDRAL) with its rating grades (scale of SME 1 to SME 6) and later it mapped the SME rating notches of all the remaining rating agencies incorporated in Bangladesh. In this regard, a credit rating methodology for SMEs has been developed and launched for the external credit rating institutions (rating agencies recognized, by BB) to ensure uniformity, greater transparency of external credit assessment and greater granularity in assessing the relative creditworthiness of SMEs, thereby promoting credit discipline in the banking industry.

The BSEC so far has permitted the following 8 local companies, in addition to Moody's Investors Service, Standard & Poor's Ratings Services and Fitch Ratings, to operate as credit rating companies, and they all are operating as subsidiaries or technical partners of the other credit rating companies incorporated in different countries.

Table 4.4 : Credit rating agencies functioning as External Credit Assessment Institutions (ECAIs)

Sl. No.	Rating Companies	Subsidiary/Technical Partner of
1.	Credit Rating Information and Services Ltd (CRISL)	Rating Agency Malaysia Berhad
2.	Credit Rating Agency of Bangladesh Ltd. (CRAB)	ICRA Limited of India
3.	Emerging Credit Rating Ltd. (ECRL)	Malaysian Rating Corporation Berhad
4.	National Credit Rating Ltd. (NCRL)	The Pakistan Credit Rating Agency Ltd
5.	ARGUS Credit Rating Services Ltd. (ACRSL)	DP Information Group, Singapore.
6.	WASO Credit Rating Company (BD) Limited	Financial Intelligence Services Ltd.
7.	Alpha Credit Rating Limited (ACRL)	Istanbul International Rating Services Inc.
8.	The Bangladesh Rating Agency Limited (BDRAL)	Dun & Bradstreet South Asia Middle East Ltd.

Source: Website of the respective rating companies

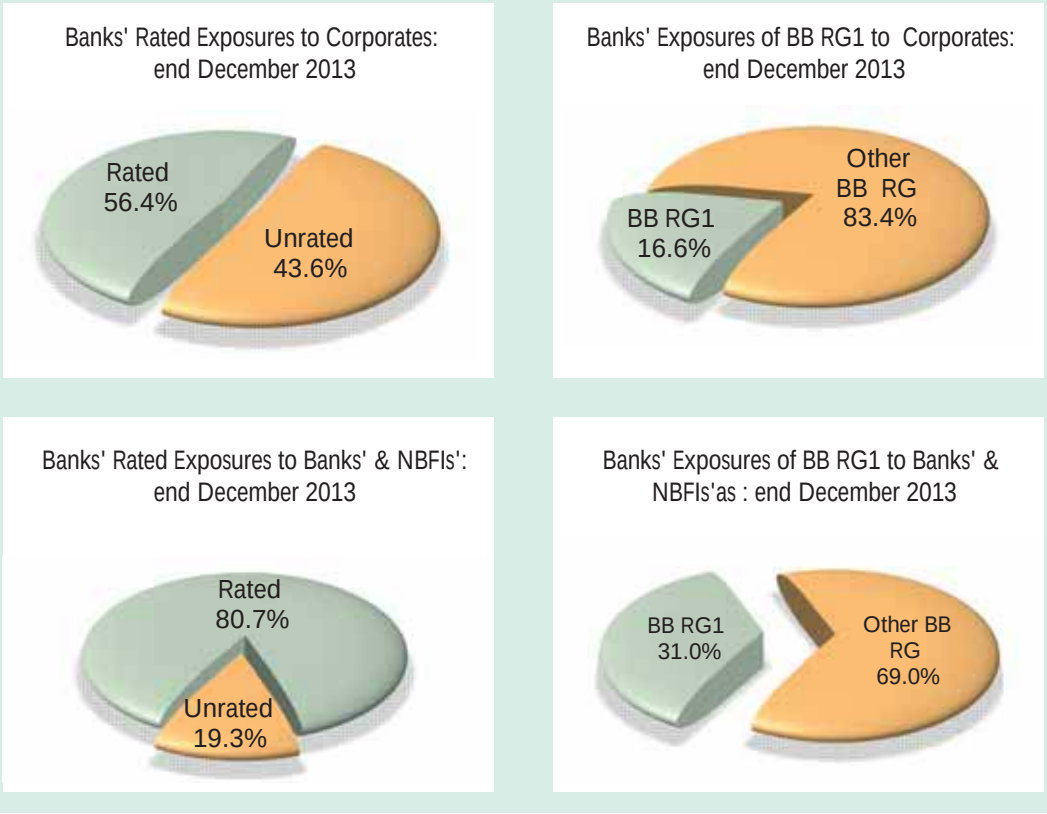
[33] For details, please see the BRPD Circular No. 12 of 31 October 2013.

[34] For details, please see the BRPD Circular No. 03 and 08 respectively of 20 February 2014 and 15 April 2014.

[35] For details, BRPD Circular No. 01 of 01 January 2014.

Though rating agencies have been implicitly playing a quasi-regulatory role, they are for-profit entities and their incentives may be misaligned with regulatory objectives. Conflicts of interest might arise because the rating companies are paid by the entities issuing the securities or extending exposures- an arrangement that has come under fire as a disincentive for the agencies to be vigilant on behalf of investors. Several studies indeed show that the smaller credit rating agencies, whose assessments will also be used in Basel II, tend to assign more favourable credit ratings than those issued by globally reputed credit rating agencies, e.g., rated by Moody's, S&P or Fitch. Moreover, the quality of the rating also depends on the quality and integrity of the persons and institutions that rate others.

Chart 4.3 : Exposure rating status in Bangladesh



Source: Data: DOS, BB; Computation: FSD, BB

The scheduled banks have exposures to banks and non-bank financial institutions (NBFIs) and to non-financial corporations. Exposure to financial institutions tends to be rated, as shown in the upper left quadrant of Chart 4.3. At the end-December 2013, total stock of ratable assets in the banking system was BDT 3237.2 billion;

out of that, 54.5 percent has been rated and almost one fifth of it carried the best rating[36] (BB rating grade 1). The ratings of financial institutions (banks and NBFIs) were self-motivated, keeping in mind their reputation in the capital and money markets and their need for increasing confidence in them for their future growths. Four-fifths of the financial institutions have been rated, as shown in the upper left quadrant, by the external credit rating agencies while slightly more than half of nonfinancial corporate exposures have been rated, as shown in the lower left quadrant. However, corporate rating is increasing over time, giving benefits to the firms in the form of concessional charges by banks, and giving banks benefit in the form of less required capital for regulatory purposes. For both financial institutions and nonfinancial corporate exposures, a relatively small percentage of the exposures have received the best credit rating, as shown in the upper right and lower right quadrants. Though almost one-third of rated banks' exposures to banks and NBFIs carried the best credit rating (BB rating grade 1), only less than one-fifth of the rated corporate exposures carried the best rating.

Banks, for mitigating credit risks, accept collaterals, such as financial instruments, registered mortgages on land and buildings, and hypothecation of inventories, receivables, machineries, motor vehicles, etc. Housing loans are secured by the property/ asset being financed. Banks accept guarantees from individuals with considerable net worth and also guarantees from corporate, government, and commercial banks in line with BB guidelines[37]. However, the bank recognizes only specified types of financial collateral for getting capital relief as outlined in the Basel II guidelines. BB adopts the simple approach for credit risk mitigation under the standardized approach, where collaterals are considered with applicable haircuts. Moreover, acceptability, eligibility and mode of valuation of real estate collaterals are imperative. Apart from professional valuation, risk managers and credit officers at banks' branch levels physically verify the collateral offered and justify the valuation of professionals. Subsequently, all documents of the collateral are checked and vetted both by banks' enlisted lawyers and the credit division to ensure clean title and enforceability of the collateral. The enforcement of the liquidation of the accepted collaterals, however, will depend on the correctness of their titles and their physical existence. BB, through its process document of SREP dialogue on ICAAP under Pillar 2 of Basel II, has instructed banks to send their relevant documentary information of accepted collaterals as recommended on a regular basis.

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[36] Bangladesh Bank has mapped the rating of the credit rating agencies into 6 notches from 1 to 6 where 1 is the best and 6 the worst.

[37] For details, refer to BRPD circular no. 14/2012.

The Credit Rating Transition Matrix

The credit rating transition matrix shows the transition or migration of corporate entities from one rating category to another rating category. Excessive migration, especially excessive downgrading of most entities indicates financial instability in the economy.

Table 4.5 : One year Transition Matrix (2012-2013)[38]

From 2012 Rating*	To 2013 Rating*					
	1	2	3	4	5	6
1	27 (93.10%	1 (3.45%)	1 (3.45%)	-	-	-
2	4 (11.11%	28 (77.78%)	4 (11.11%)	-	-	-
3	1 (1.41%)	8 (11.27%)	55 (77.46%)	4 (5.63%)	3 (4.23%)	-
4	2 (6.67%)	1 (3.33%)	7 (23.33%)	18 (60.00%)	2 (6.67%)	-
5	-	-	-	2 (50.00%)	2 (50.00%)	-
6	-	-	-	-	-	-

*Rating grades are BB equivalent
Source: Data: BRPD, BB; Computation: FSD, BB

The transition matrix (rating migrations) shows that in 2013 higher rated entities (BB rating grades 1 and 2) have retained their grading in most cases though there are some downward migrations which is higher compared with the previous year especially for the grade 1 category (Transition matrix for 2012 is shown below).

Table 4.6 : One year Transition Matrix (2011-2012)

From 2011 Rating*	To 2012 Rating*					
	1	2	3	4	5	6
1	27 (100%)	-	-	-	-	-
2	1 (3.58%)	27 (96.42%)	-	-	-	-
3	-	1 (2.86%)	32 (91.42%)	1 (2.86%)	1 (2.86%)	-
4	-	-	2 (5.88%)	32 (88.23)	2 (5.89%)	-
5	-	-	-	1 (25.00%)	3 (75.00%)	-
6	-	-	-	-	-	-

*Rating grades are BB equivalent
Source: Data: BRPD, BB; Computation: FSD, BB

[38]Analyses considered the entity-wise long-term rating under surveillance category comparing with 4th quarter data of 2012 and 2013 of 170 ratings of Argus, CRAB, ECRL and NCRL.

Entities with lower grading (BB rating grade 3 and 4) experienced higher rating migration compared with both the highly rated entities of the year and with their own migration pattern in the previous year. For these entities, migration to higher rating categories is much more common than the downward migration, which is desirable for the stability of the economy.

The stability of ratings, indeed, does not necessarily mean they are accurate. Market participants do not want ratings that simply track market-based measures of credit risk; rather they should reflect independent analytical judgments that provide counterpoint to market-based assessments. Investors, issuers and regulators want ratings to reflect enduring changes in credit risk because rating changes have real consequences that are costly to reverse. Users of rating systems value stability because ratings affect behavior and the actions taken in response to rating changes. Moreover, ratings are used as tools of governance to monitor and to constrain the investment choices available to portfolio managers.

The Bangladesh economy suffered stagnation during 2013 from the political disturbances that affected the normal activities of different business entities. Thus, it was usual to find more dispersion in overall credit migration of the corporate entities. However, since upward credit migration is more prominent than downgrading, it could be explained that the migrations of relatively highly-rated entities from the previous year do not reveal any stability threat for the economy in the corporate sector. The overall corporate ratings were fairly stable, over a one year horizon, and provide a reasonable measure of the relative chances of a corporation's default and, with no wild swings to report, depict any immediate threat to maintaining financial stability in Bangladesh. However, this analysis is subject to survivorship bias. Only the entities with stable performance might wish to rate again, whereas there might be many entities with poor performance that decided not to rate again and are not covered under the above transition matrix.

Chapter 5

Stress Testing

Stress tests are used for assessing the resilience of a financial sector to different shock scenarios. As a part of quarterly surveillance, Bangladesh Bank (BB) monitors the stress tests conducted by the banks to gauge the resilience of individual banks and the banking sector as a whole to different extreme, yet plausible, risk scenarios.

A number of single factor sensitivity stress tests covering credit risk, market risk and liquidity risk are conducted to assess the resilience of the banks. Under each scenario, the after-shock CAR[39] is compared with the minimum regulatory requirement of 10 percent[40]. Particular attention is paid to credit risk, which is the largest risk in the banking sector.

At present, banking sector of Bangladesh consists of 56 scheduled banks, as 9 newly-licensed banks commenced their commercial operation in CY13. However, these new banks are excluded from the analysis of stress testing as their business volume has not been extended that much. Banking sector data reveal that out of 47 scheduled banks 2 were undercapitalized and 3 had a negative CAR due to a cumulative loss and provision shortfall as of end-December 2013. The remaining 42 banks met the minimum regulatory limit of CAR.

5.1 Credit risk

A number of tests for credit risk have been conducted to assess the impact of different static shocks on banks' capital. The ratio of NPL[41] to total gross loans is taken as the main measure of credit risk, since credit risk is associated with the quality of the sector's loan portfolio.

Table 5.1 : Stress tests-credit risk-CAR and NPL ratio after shocks

(Percent)

Scenarios	Required Minimum CAR	Maintained CAR	Gross NPL Ratio
Baseline: Banking System(47 Banks)	10.00	10.93	8.97
Stress Scenarios:			
Shock -1: NPL increase by 3%	10.00	10.12	9.24
Shock -2: NPL increase by 9%		8.07	9.78
Shock -3: NPL increase by 15%		4.72	10.34

Source: Financial Stability Department, BB

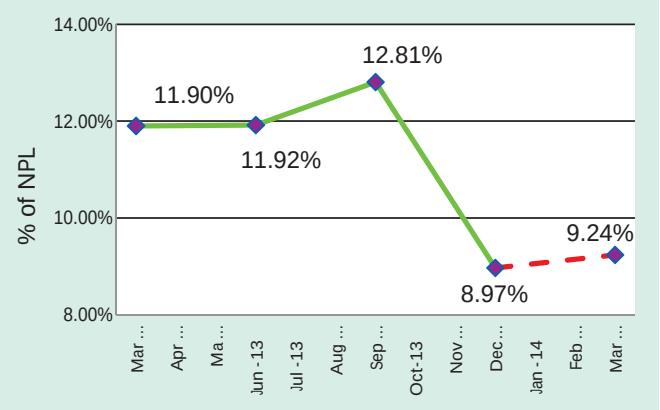
In figure 5.1, historical gross NPL ratios of 4 quarters during CY13 have been illustrated with a green line and the dotted red line shows the stressed scenario. Under the minor shock situation, the banking sector gross NPL ratio may rise to 9.24 percent from the current level of 8.97 percent.

[39] CAR (Capital Adequacy Ratio)

[40] The results are based on the unaudited data for CY13.

[41] NPL (Non-performing loan) means loan classified in either the substandard, doubtful, or bad/loss category.

Chart 5.1 : Probable NPL ratio after minor shock



Source: Financial Stability Department, BB

Consequently, the banking sector CAR may decline to 10.12 percent. The results also reveal that 6 of the 42 banks may become undercapitalized, although CAR for an additional 7 of the remaining banks may decrease by 1.0 percentage point or more.

Table 5.2 : Stress tests-credit risk-default by largest borrowers

(Percent)

Scenarios	Required Minimum CAR	Maintained CAR
Baseline: Banking System (47 Banks)	10.00	10.93
Stress Scenarios:		CAR after shock
Shock-1: 3 largest borrowers		7.55
Shock-2: 7 largest borrowers		5.56
Shock-3: 10 largest borrowers		4.39

Source: Financial Stability Department, BB

The second test has been done on credit concentration risk of banks to establish the effect of default by the large borrowers for each bank. Under the assumed scenarios of default of largest three individual/group borrowers, the system would not be able to withstand this shock. At the individual level, 25 of the 42 banks would become undercapitalized. The CAR for 9 of the remaining banks would also decrease by 1.0 percentage points or more.

Table 5.3 : Stress tests-credit risk-increase in NPLs in particular sector

(Percent)

Scenarios	Required Minimum CAR	Maintained CAR
Baseline:Banking System (47 Banks)	10.00	10.93
Stress Scenarios:		CAR after shock
Shock1: 3% of performing loans directly downgraded to non-performing (bad/loss)		10.86
Shock2: 9% of performing loans directly downgraded to non-performing (bad/loss)		10.73
Shock3: 15% of performing loans directly downgraded to non-performing (bad/loss)		10.60

Source: Financial Stability Department, BB

The third test has shocked performing loans to selected business sectors such as readymade garments (RMG), textiles, ship building and breaking, real estate (residential and commercial), construction, power and gas, transport, storage and communication, capital market, consumer credit etc. Data on end-December 2013 reveal that the RMG sector had the highest exposure (8.92 percent of the total loans), however, from a risk standpoint, the impact would be minimal. If an additional 3 percent of this single sector's loans become non-performing (bad/loss), then the banking sector CAR would decrease to 10.86 percent, still remaining above the minimum regulatory limit. Therefore, sectoral concentrations of loans, under a minor shock, would have an insignificant impact on capital.

The fourth test dealt with the fall in the forced sale value (FSV) of mortgaged collaterals against loans. The FSV of mortgaged collaterals was allowed to decline by 10, 20 and 40 percent. The result due to the minor shock reveals that 2 of the 41 banks would become undercapitalized.

The fifth test assumed negative shifts in the existing NPL categories due to some unfavorable events for the banks, which result in more provision requirements. The uniform shocks (amount of loan shift from one category to another) were 5, 10 and 15 percent downward shift in the NPLs categories. For example, for the first level of shock, 5 percent of the standard and special mention term loans downgraded to substandard, 5 percent of the substandard downgraded to doubtful, and 5 percent of the doubtful downgraded to the bad/loss category. The result due to minor shock reveals that 3 banks out of 41 would become undercapitalized.

Chart 5.2 : Stress tests-credit risk-different risk factors

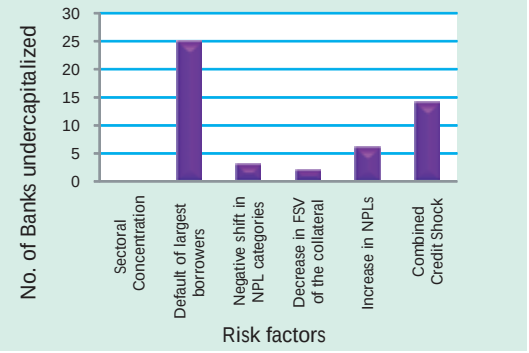
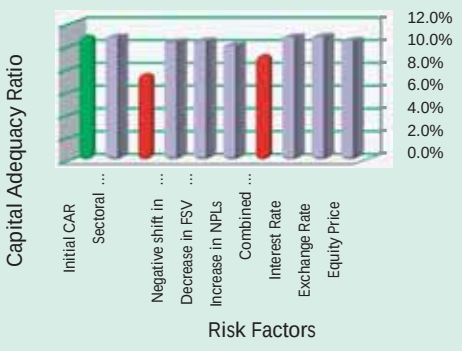


Chart 5.3 : Stress tests-minor shock on different risk factors



Source: Financial Stability Department, BB

The results suggest that credit risk is the most dominant risk factor in terms of its impact on CAR. Overall, based on the data as of end-December 2013, the sensitivity analysis on the banking sectors' credit portfolio reveals that the banking sector is less resilient when different credit shocks are applied. Out of 41 banks,

due to default of the largest borrowers, 25 banks would become undercapitalized. Due to an increase in NPL, 6 banks would fall short of requirements, and due to a combined credit shock 14 banks would become undercapitalized. In a nut shell, deterioration in performance of the largest borrowers would have the highest impact on the banks' soundness.

5.2 Liquidity risk

The liquidity stress test considers chronic withdrawal of demand and time deposits both in local and foreign currency[42]. A bank is considered to be well liquid if it can continue its operation/business (after maintaining SLR[43]) up to 5 consecutive days under a stressed situation. Standard shocks are 2, 4 and 6 percent respectively which are given in excess of the bank's normal withdrawal[44]. However, withdrawal is adjusted with available liquid assets (excluding SLR).

Table 5.4 : Stress tests-banking sector liquidity risk

Liquidity Stress: Consecutive Five (5) Working Days		Stress Scenarios		
		Shock 1	Shock 2	Shock 3
Day:1	Liquid or not (1 = Yes, 0 = Not)	1	1	1
Day:2		1	1	1
Day:3		1	1	1
Day:4		1	1	1
Day:5		1	1	1

Source: Financial Stability Department, BB

Results reveal that the individual banks and the banking system as a whole are resilient against specified liquidity stress scenarios.

5.3 Market risk

The banking industry is found to be fairly resilient in the face of various market risk shocks (interest rate, exchange rate and equity price movements). The CAR of none of the banks would be affected much under the exchange rate shock. However, 7 banks would become undercapitalized due to the interest rate shock and 3 banks due to the equity price shock.

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[42] A liquidity stress test has been conducted to assess the ability of a bank to withstand unexpected liquidity drain without taking recourse to any outside liquidity support. This test shows how many days a bank would be able to survive a liquidity drain without resorting to liquidity from outside (other banks, financial institutions or central banks).

[43] SLR = Statutory Liquidity Requirement.

[44] Withdrawal means only deposit outflow.

Table 5.5 : Stress tests-interest rate risk (Percent)			
Scenarios	Required Minimum CAR	Maintained CAR	CAR after Shock
Baseline: Banking System (47 Banks)	10.00	10.93	-
Stress Scenarios:			
Shock-1: 1% increase in interest rate	10.00	10.46	10.88
Shock-2: 2% increase in interest rate			10.82
Shock-3: 3% increase in interest rate			10.77

Source: Financial Stability Department, BB

Table 5.6 : Stress tests-exchange rate risk			
Scenarios	Regulatory CAR	Maintained CAR	CAR After Shock
Baseline: Banking System (47 Banks)	10.00	10.93	-
Stress Scenarios:			
Shock-1: Currency appreciation/depreciation by 5%	10.00	10.46	10.91
Shock-2: Currency appreciation/depreciation by 10%			10.88
Shock-3: Currency appreciation/depreciation by 15%			10.86

Source: Financial Stability Department, BB

Table 5.7 : Stress tests-equity price risk			
Scenarios	Regulatory CAR	Maintained CAR	CAR After Shock
Baseline: Banking System (47 Banks)	10.00	10.93	-
Stress Scenarios:			
Shock-1: Fall in the equity prices by 10%.	10.00	10.46	10.56
Shock-2: Fall in the equity prices by 20%.			10.18
Shock-3: Fall in the equity prices by 40%.			9.41

Source: Financial Stability Department, BB

BB considers stress testing as a complement, rather than a supplement, to major risk management tools. The expansion in the use of stress testing is clear evidence of the increased integration of stress testing into risk management frameworks at banks. Increasingly, individual banks are taking into account the information about plausible worst case scenarios and, where it is deemed prudent, taking action to avoid the adverse consequences of these events.

The stress tests exhibit that the banking sector remains resilient to adverse scenarios. Most of the banks have a sufficient capital buffer that enables them to absorb adverse shocks and maintain the sector's overall CAR above the regulatory threshold of 10 percent in a stressed scenario. An increase in regulatory capital in CY13 has even enhanced the banking sector's resilience compared with the previous year. The liquidity stress test also reveals banks' solvency in a stressed scenario.

Chapter 6

Non-Bank Financial Institutions

6.1 Introduction

The NBFI sector in Bangladesh plays an important role in financing various sectors like manufacturing and service industry, trade, housing, transport, information and communication technology, and capital markets. The NBFI sector consists of specialized financing companies, leasing companies, investment companies, merchant banks, etc. The financing modes of the NBFIs are long term in nature.

As of end-December 2013, 31 NBFIs are operating their business across the country, of which 3 are government owned, 18 are privately-owned local companies, and the remaining 10 are established under joint venture with foreign participation. NBFIs are operating with 176 branches in the country.

6.2 Funding sources

The major funding sources of NBFIs are capital, term deposits, credit facilities from banks and other NBFIs, call money, bonds and securitization. NBFIs are allowed to mobilize term deposits only with tenor not less than 6 months. Banks also invest in bonds/debentures issued by NBFIs which is another source of funds.

Chart 6.1 : NBFIs' borrowings, deposits & capital trend

The borrowings, deposits and capital of NBFIs increased by 27.5 percent, 36.1 percent and 17.7 percent respectively in CY13 compared with those of the previous year. The trend of increasing capital shows moderately sound financial base of the NBFIs.

Source: Department of Financial Institutions & Markets, BB

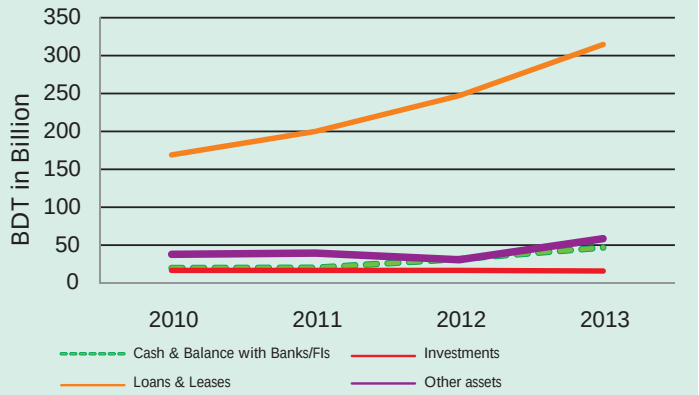
6.3 Deposit safety net of NBFIs

The deposit insurance system aims at minimizing the risk of loss of depositors' funds with NBFIs. At present, there is no deposit insurance coverage for the depositors of NBFIs. However, the proposal to bring the NBFI depositors under the umbrella of insurance coverage is under process of approval with the Ministry of Finance.

6.4 Assets composition

NBFIs' total assets increased by 33.4 percent in CY13 compared with that in CY12. The major portion of NBFIs' funds was deployed in loans and leases, which was 72.2 percent of total assets in CY13. On the other hand, cash and balance with banks/FIs, investments, and other assets (including fixed and non-financial assets) comprised 10.8 percent, 3.6 percent, and 13.4 percent respectively of total assets in CY13.

Chart 6.2 : NBFIs' financing trend



Source: Department of Financial Institutions & Markets, BB

Box 6.1 : NBFIs' sector-wise loans & leases composition (CY13)

(BDT in Billion)

Sl.	Sector	Amount	Percent	HHI*
1	Trade & Commerce	46.5	15	225
2	Garments & Knitwear	12.7	4	16
3	Textile	15.3	5	25
4	Jute & Jute-Products	1.4	0	0
5	Food Production & Processing Industry	13.0	4	16
6	Plastic Industry	2.0	1	1
7	Leather & Leather-Goods	0.4	0	0
8	Iron, Steel & Engineering	14.2	4	16
9	Pharmaceuticals & Chemicals	8.5	3	9
10	Cement & Allied Industry	3.3	1	1
11	Telecommunication & Information Technology	7.4	2	4
12	Paper, Printing & Packaging	5.1	2	4
13	Glass, Glassware & Ceramic Industry	2.1	1	1
14	Ship Manufacturing Industry	4.4	1	1
15	Electronics & Electrical Products	2.0	1	1
16	Power, Gas, Water & Sanitary Service	38.6	12	144
17	Transport & Aviation	14.1	4	16
18	Agriculture	4.6	1	1
19	Housing	38.9	12	144
20	Merchant Banking	11.5	4	16
21	Margin Loan	12.3	4	16
22	Others	61.5	19	361
	Total	319.87	100	1,018

* HHI = Herfindahl-Hirschman Index

The calculated Herfindahl-Hirschman Index (HHI) indicates that NBFIs' loans and leases were moderately concentrated (1000-1800 points) during CY13. The trade and commerce sector, in particular, comprises 15.0 percent of total loans and leases followed by housing as well as power, gas, water and sanitary service sector with a share of 12.0 percent.

6.5 Asset quality

NBFIs reported a deterioration in asset quality in CY13. Classified loans and leases increased by 29.2 percent or BDT 4.0 billion in CY13 compared with that of the previous year. The ratio of classified loans and leases to total loans and leases reached 5.6 percent, up 10 basis points recorded in CY12.

Chart 6.3 : NBFIs' classified loans and leases trend

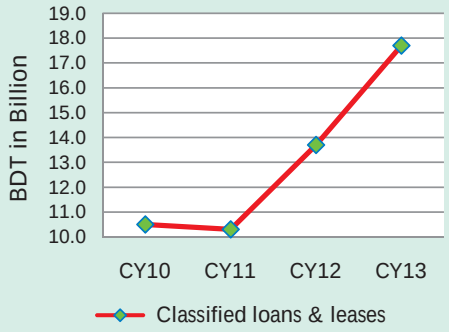
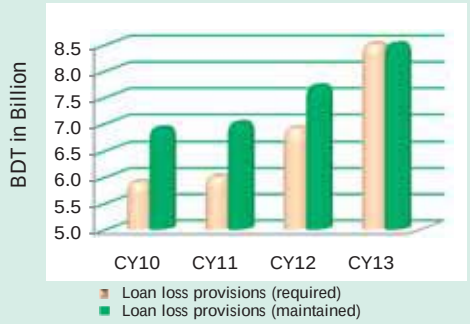


Chart 6.4 : NBFIs' loan loss provisioning

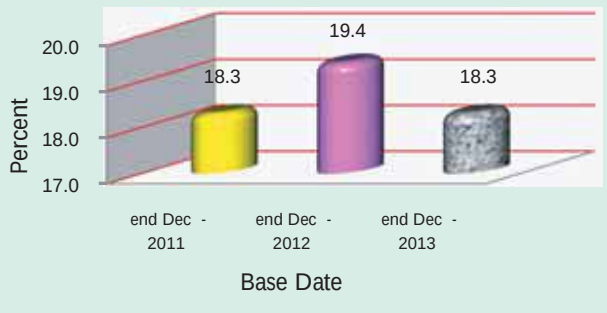


Source: Department of Financial Institutions & Markets, BB

Due to a worsening of asset portfolio quality, NBFIs endured higher provisioning costs and weaker financial results. During CY13, an amount of BDT 9.5 billion in loan loss provisions was maintained against a requirement of BDT 8.6 billion, representing a coverage ratio of 53.9 percent of classified loans and leases.

6.6 Capital adequacy

Chart 6.5 : Capital Adequacy Ratio (CAR)



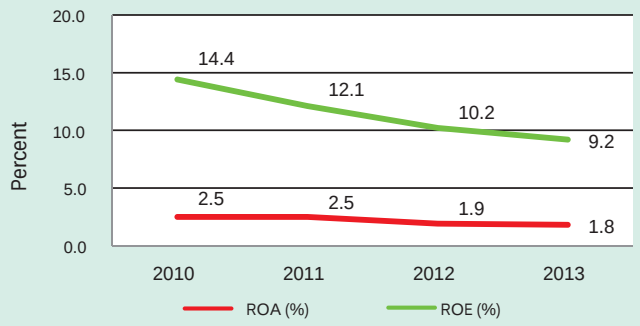
Source: Department of Financial Institutions & Markets, BB

NBFIs commenced the implementation of the Basel II accord to determine capital adequacy on 01 January 2012. The capital adequacy ratio (CAR) for the NBFIs was 19.4 percent in CY12 and decreased to 18.3 percent in CY13 due to the proportionate increase of RWA compared with total eligible capital.

However, this position was well in excess of the regulatory minimum requirement of 10.0 percent. Out of 31 NBFIs, 2 NBFIs failed to maintain regulatory minimum requirement of CAR.

6.7 Profitability

Chart 6.6 : NBFIs' profitability trend



NBFIs' major portion of income was generated from loans, leases and advances. Interest on deposits was the major outlay of total expenses. The NBFIs' profitability increased during CY13 compared with the previous year.

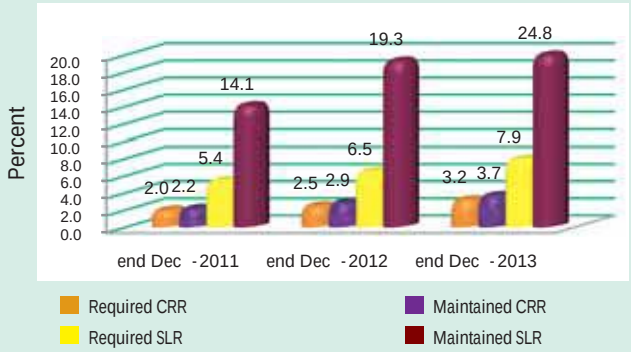
Source: Department of Financial Institutions & Markets, BB

Profits before taxes increased by 39.9 percent in CY13, on account of an increase in interest income (44.3 percent) and commission, exchange and brokerage income (300 percent). Consequently, the profitability indicators rose. The return on assets (ROA) and the return on equity (ROE) was 1.8 percent and 9.2 percent respectively in CY13. However, the profitability ratio lines show a declining trend due to proportionately higher increase in assets and equities compared with profits.

6.8 Liquidity

NBFIs who take term deposits have to maintain a statutory liquidity requirement (SLR) of 5.0 percent of their total liabilities, inclusive of an average 2.5 percent cash reserve ratio (CRR) of their total term deposits. NBFIs operating without taking term deposits have to maintain an SLR of 2.5 percent and are exempted from maintaining CRR.

Chart 6.7 : NBFIs' CRR & SLR



Source: Department of Financial Institutions & Markets, BB

As of 31 December 2013, an aggregate 3.7 percent CRR and 24.8 percent SLR were maintained by the NBFIs. Balances with other banks and FIs, call money investment, investment in government securities and any other assets approved by BB are considered as components of SLR. For this reason, the SLR maintained by the NBFIs was higher than the amount required.

6.9 NBFI Sector Resilience

NBFIs' stress test technique is primarily based on a simple sensitivity analysis using four risk factors, namely interest rate, credit, equity price and liquidity. The stress test for credit risk assesses the impact of an increase in NPLs, a downward shift in the NPL categories (i.e., special mentioned account to substandard, substandard to doubtful, doubtful to bad/loss), a fall in the value of eligible collateral against loans and leases, an increase in NPLs under bad/loss category (in particular, two sectors where the NBFI has the highest exposure), and an increase in NPLs due to the default of the top large borrowers. Minor, moderate and major levels of shock scenarios to the individual risk factors are applied giving weights of 50.0 percent, 30.0 percent and 20.0 percent respectively.

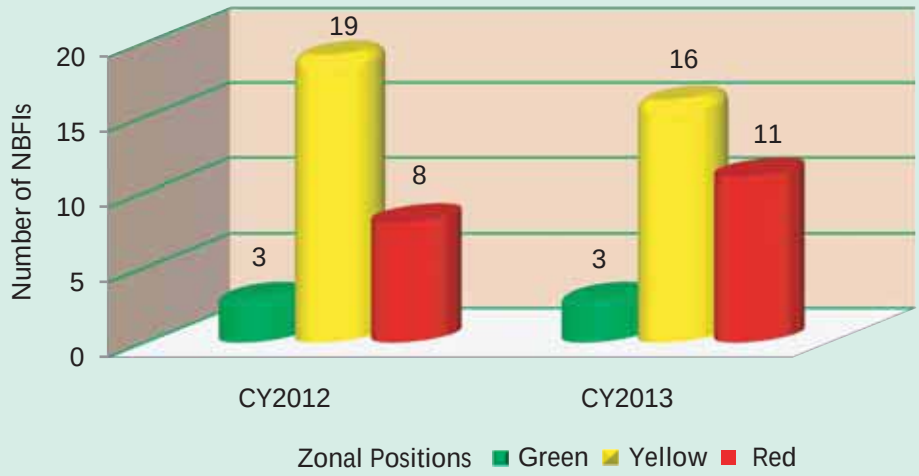
The Weighted Average Resilience (WAR) is calculated based on the weights of 10 percent for interest rate, 60.0 percent for credit, 10.0 percent for equity price and 20.0 percent for liquidity at three levels of shock scenarios.

The NPL to loan ratio of an NBFI is denoted as the Infection Ratio. An Infection Ratio which can completely erode the regulatory capital of the NBFI to zero is the Critical Infection Ratio (CIR). CIR implies distance to default or insolvency. Computation of CIR assumes the erosion of full regulatory capital due to increase in NPL in the bad/loss category ignoring the tax impact. Insolvency Ratio (IR) is the ratio of Infection Ratio to the CIR. IR implies the percentage an NBFI is towards insolvency. For stress

testing, minor, moderate and major level of shocks are applied giving weights of 50.0 percent, 30.0 percent and 20.0 percent respectively to derive the Weighted Insolvency Ratio (WIR).

Both the WAR and WIR are then scaled from 1 to 5 (best to worst) grades and categorized as either green (for grade 1) or yellow (for grade 2 and 3) or red (for 4 and 5) zone. The overall financial strength and resilience of an NBFI is identified by plotting its achieved ratings in the WAR-WIR Matrix. The combined zonal position is set based on the weights of 80.0 percent on WAR and 20.0 percent on WIR.

Chart 6.8 : Combined WAR-WIR matrix-based zonal position (CY13)



Out of 31 NBFIs, one NBFI has been exempted from stress testing analysis as it has started its commercial operation very recently. Results from the stress test based on end-December 2013 data reveal that out of 30 NBFIs, 3 are positioned as green and 16 are positioned as yellow. On the other hand, 11 NBFIs are positioned as red due to liquidity risk and increase in NPL. However, among these 11 NBFIs positioned as red, 2 are due to pre-shock CAR below the level of regulatory limit.

Chapter 7

Financial Markets

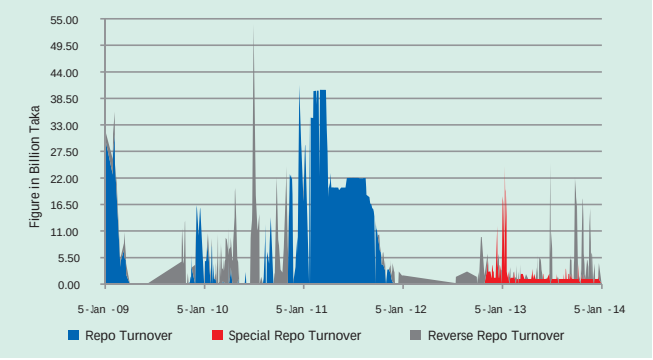
7.1 Money Market

The money market in Bangladesh is usually dominated by the banks. Several money market instruments and mediums are available, among which the repo market, interbank repo market and call money markets are mentionable. Moreover, the interbank deposit flow is another source of liquidity for the financial institutions.

7.1.1 Repo Market (with Bangladesh Bank)

An increasing volume of reverse repo indicates that the financial system enjoyed certain comfort in terms of liquidity in 2013.

Chart 7.1 : Repo, reverse repo and special repo turnover (January, 2009- December, 2013)



Source: Bangladesh Bank website, Economic Data

The repurchase agreement (Repo) market is not a continuously very active market, specifically over the last five years. The repo market became a popular source of funding during the period of 2010-11, when the activities in the market increased because of the search for liquidity paced by the financial institutions.

Since the latter part of 2012, special repo with Bangladesh Bank (BB) was more common. Also, reverse repo agreements were used by some banks for the better management of their funds or to get exposure in the desired securities issued by the treasury.

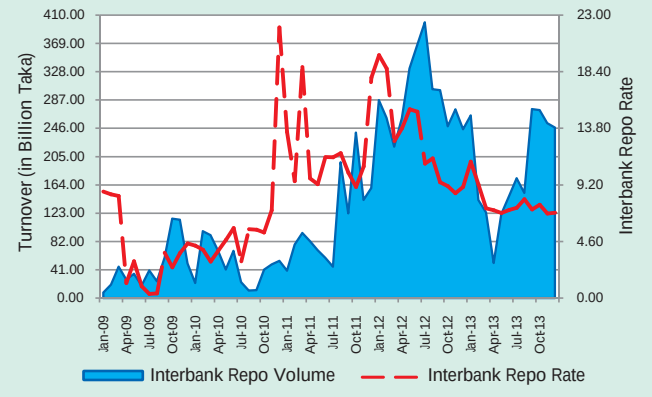
7.1.2 Interbank Repo Market

The interbank repo rate more closely resembles the market conditions and can be used as a leading indicator for the financial and macroeconomic stability situation.

This is one of the most important money market segments. The interbank repo rate more accurately indicates the money market conditions, because rates arenot controlled by any authority and determined based on the demand and supply

orientations in the money market. It is a continuous and vibrant market. In 2011, the total turnover of the interbank repo market was BDT 1328.43 billion over the year. It reached its peak in 2012, at BDT 3497.95 billion, an increase by 163.31 percent. In 2013, the turnover reduced to BDT 2224.14 billion (decreased by 36.42 percent from 2012 turnover).

Chart 7.2 : Interbank repo turnover and price (January, 2009-December, 2013)



Source: Bangladesh Bank website, Economic Data
Calculation: Financial Stability Department (FSD)

The interbank repo rate peaked in December, 2010 (21.99 percent), when BB increased the CRR level; a monetary contraction certainly pushed the banks to search for liquidity. After that, the market remained volatile, but became more vibrant, as the market turnover increased over time. A high level of interest rate prevailing in the repo market, in conjugation with high turnover, leads to the conclusion that some banks suffered from liquidity shortfalls during the period of 2011-12, and borrowed at higher rate from the interbank repo market, and at the same time, some banks, in part profited from the same market. From the latter part of 2012, the market started to ease, with both the interbank rates and volume coming down. In 2013, market turnover yet again increased, but the repo rate was still trending downwards. This apparently suggests that the market now enjoys sufficient liquidity, and the primary reason for rising volume is just an outcome of better fund management, not resulting from any crisis.

7.1.3 Interbank Call Money and Deposit Market[45]

The interbank money and deposit market slowed down a little on December, 2013. On aggregate, financial institutions were reducing their exposure with one another.

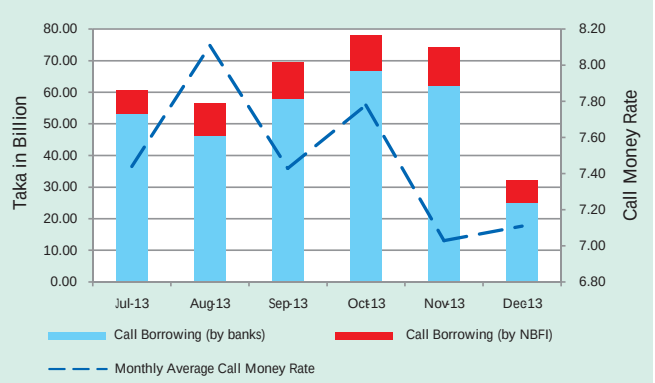
The call money market is the lifeblood of the financial institutions' day to day liquidity management system. This is the instrument the bankers rely mostly on managing day to day funds, and it also reflects the trustworthiness among the market participants.

On 30th December 2013, the total investment made by the banks and NBFIs in the call money market was BDT 32.05 billion, lower than that of 30th November 2013

[45] Interbank call money only includes exposures of scheduled banks and NBFIs with one another. Assets or liabilities with non- scheduled financial institutions are omitted in this discussion.

exposure, by 56.73 percent or by BDT 42.02 billion[46]. Since July 2013, the monthly average call money rate also showed a declining trend. On a net exposure basis, on the last trading day of November and December, call money exposure amounted to BDT 64.78 billion and BDT 29.28 billion respectively. The lender borrower ratio[47] showed an improvement from the month of November to December 2013, as the number of the borrowers in the call money market decreased in December 2013.

Chart 7.3 : Money at call and short notice volume and monthly average call money lending rate (July, 2013- December, 2013)



Source: Department of Financial Institutions & Markets, BB

The net flow of call funds from the banking sector to NBFIs amounted to BDT 7.11 billion, showing a reduction in the balance from November 2013 when it amounted to BDT 12.04 billion. The interbank deposit (on 30th December 2013) amounted to BDT 288.88 billion, decreasing from the amount of BDT 303.86 billion (by 4.93 percent) from 30th November 2013.

On a net[48] basis, the interbank deposits amounted to BDT 140.87 billion and BDT 161.18 billion for the month end of December and November respectively. Scheduled banks had exposure of BDT 65.00 billion with the NBFIs (scheduled) in Bangladesh; whereas the NBFIs had exposure of BDT 60.27 billion with the scheduled banks through interbank deposits at the month end of December, 2013.

7.2 Bond Market

The fixed income securities market has yet to come a long way in Bangladesh. Despite several efforts made by the regulators, bourses and market participants, a thriving market has not yet been in operation. Trading in bonds is important. It

[46] Interbank Call Money & Deposit analysis only covers the period from July, 2013 to December, 2013, because the data source is 'Interbank Transaction Matrix', a newly developed tool which was created to assess the interbank fund flow and interconnectedness among banks and NBFIs. This tool is analyzing interbank data since July, 2013. Financial Stability Department is willing to provide a full year wide analysis from the next issue.

[47] Lender Borrower Ratio = No of net Lenders in the call money market/ No of net borrowers in the call money market. This ratio was 0.66 and 0.48 on the month of December and November (of 2013) respectively.

[48] Net interbank deposit position means interbank deposits with other banks and NBFIs minus interbank deposits from other banks and financial institutions.

increases the efficiency and competitiveness of the financial system, enhances the stability of the system by creating an alternative to bank finance, and, of course, acts as a vehicle to transfer information (both ways) on credit market conditions (including believable benchmark interest rates) between policy makers and market participants.

Private sector fund raising through issuing shares or bonds has a limited scope in Bangladesh, mostly because of the size of the capital market. In most cases, large corporations depend on bank finance, which exposes the banks to risk factors that sometimes become difficult to manage. Although there has been a large outstanding amount of government debt present in the system, the secondary government bond market suffers, for various reasons, from liquidity problems.

Developing a viable bond market in Bangladesh will enhance the stability of the financial system. When firms can raise funds by issuing bonds, they are less dependent on banks, less exposed to difficulties in the banking system and less vulnerable to the adjustments that banks need to make, including those required by bank supervisors. When banks know that they do not have a captive audience because firms have alternatives, they may improve their internal supervision. Having alternatives to banks may, therefore, result in a more sound banking and financial system.

The Dhaka Stock Exchange (DSE) is the primary capital market bourse in Bangladesh. There are 221 listed treasury debt securities and 3 corporate securities offered to market participants via this bourse. The total market capitalization of treasury securities amounted to BDT 549.38 billion (20.38 percent of total market capitalization) as of 30 December, 2013, unfortunately with no turnover over the whole year of 2013. Total market capitalization of corporate bonds amounted to BDT 6.38 billion (0.31 percent of total market capitalization), with a turnover of BDT 0.01 billion (0.01 percent of total turnover during the month of December, 2013). So, the bond market was not performing at its best in this framework.

Aiming to create a vibrant secondary bond market, Bangladesh Bank (BB) in December 2012 added a new horizon in financial markets by launching online trading of government securities. Under this arrangement, government securities are traded under the Trade Work Station (TWS) of the Market Infrastructure (MI) module, unlike the traditional trading through the over-the-counter (OTC) deals. The Debt Management Department (DMD) of BB issued a circular in this regard to all banks and non-bank financial institutions saying that banks, NBFIs, insurance companies, corporate houses, mutual funds and other private organizations could participate in trading of T-bills and T-bonds through the TWS[49].

7.2.1 Treasury Bills and Bonds/ Bangladesh Bank Bill Auction Market

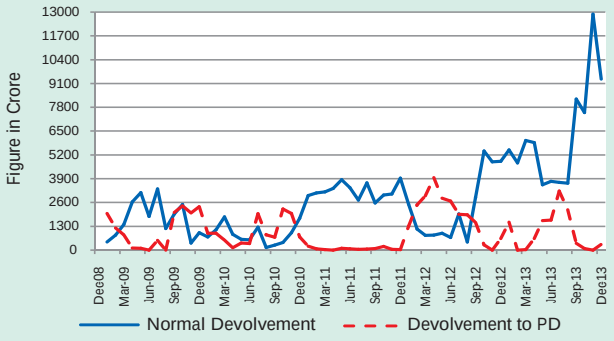
Government focused on borrowing with short term instruments in 2013. Devolvement of new treasury securities to Bangladesh Bank was carefully avoided.

[49]The banks and NBFIs and other private companies that want to participate in trading through TWS will initially need approval from their board of directors.

Moreover, Bangladesh Bank issued 30-day Bangladesh Bank Bills more frequently as an effective monetary policy tool. Mandatory devolvement to non- PDs may become a concern in the future.

On December, 2013, an amount of BDT 98.65 billion worth of treasury bills, bonds and Bangladesh Bank bills have been sold. In this total, normal devolvement amounted to BDT 93.36 billion, devolvement to primary dealers (PD) amounted to BDT 3.17 billion and mandatory devolvement to non-PD institutions amounted to BDT 2.12 billion. Of the instruments, 30-day BB bills were sold amounting to BDT 18.40 billion, 91-day treasury bills were sold amounting to BDT 39.28 billion, and 182-day T-bills, 364-day T- Bills and 2-year treasury bonds were sold amounting to BDT 15.37 billion, 20.60 billion and 5 billion, respectively.

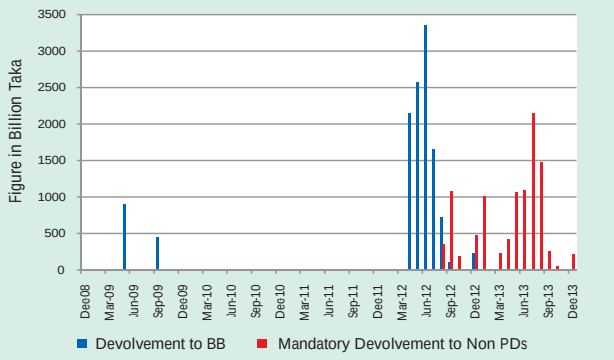
Chart 7.4 : Volume of treasury securities auction sales (includes the amount of BB Bills)[50]



Data: Debt Management Department, Calculation: FSD

In the last quarter (October-December, 2013), Bangladesh Bank and the public sector's combined issuance pulled off 303.94 billion BDT through the sales of securities to private sectors, specifically to the banking sector. Compared with the previous quarter, it was 20.45 percent higher, and from the same quarter over last year (October- December, 2012), it was higher by 80.18 percent.

Chart 7.5 : Volume of treasury securities auction sales (To BB and Non PDs)



Data: Debt Management Department, Calculation: FSD

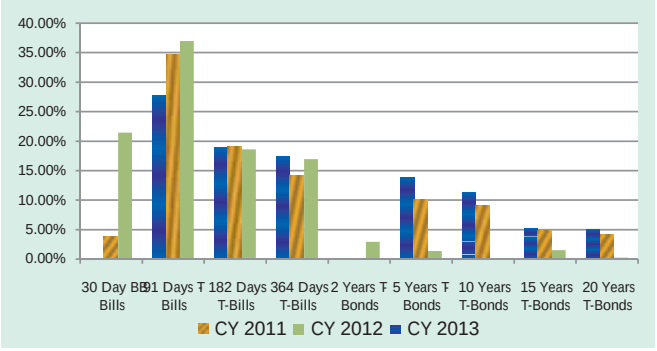
In 2012, treasury issues devolved directly to Bangladesh Bank (BB) amounted to BDT 107.68 billion. But in the next year, no new treasury issues were devolved to BB. On the other hand, mandatory devolvement to non- PDs amounted to BDT 20.88 billion and BDT 79.46 billion in the year 2012 and 2013 respectively.

[50]Excludes the amount devolved directly to BB and mandatory devolvement to Non- PDs

Choice of the tenor of the issue by the issuer of treasury securities is an important factor. In 2013, the Government preferred shorter maturity debt instruments compared with the previous years, specifically dependence on 91-day T-bills increased significantly. Also, from 2012, Bangladesh Bank re-introduced 30-day BB bills as a monetary policy instrument, which increased manifold in 2013. Choice of instruments was affected by the investors' preference, working capital financing and the political scenario arising from the upcoming event of National Parliamentary Election (scheduled to be held in January 2014).

Overall, the primary treasury market has become more vibrant over the last two years; the inclusion of 30-day BB bills and 2-year treasury notes has a positive impact because not only more choice has been provided by the issuer to the investors, but also the 30-day BB bills act as an effective monetary policy tool.

Chart 7.6 : Percentage of issuance differentiated by the tenor of the treasury securities

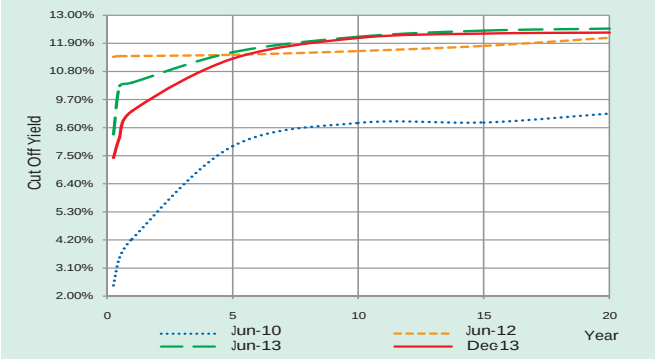


Source: Debt Management Department, Calculation: FSD

7.2.2 Yield Curve[51] Analysis

The yield curve became upward sloping after experiencing a much flatter slope over the past couple of years. Both the expectation for growth potential and a moderate level of inflation has been anticipated by market participants over the next year. But a higher level of interest rates could still hamper investment potential.

Chart 7.7 : Treasury auction (cut off rate) yield curve



Source: Monthly Economic Indicators, Several Issues

[51] Yield curve is prepared with the treasury auction cut off rates (weighted average).

Since 2010, the yield curve shifted upward because of some policy actions and became flatter on June 2012. From June 2012 and onwards, the yield curve changed its shape (twisted), and became slightly upward sloping, although levels of interest rates were still high.

A flat yield curve during June 2012 shows the expectation of lower inflation rate, but it also indicated an early warning sign that the economy might slow down. Tightening monetary policy raised the short term interest rate, but the long term interest rate did not rise proportionately[52]. The current yield curve (December 2013) has a much lower level of short term rates, but almost the same (or slightly higher) long term rate compared with the June 2012 levels. This situation depicts the possible comeback of a moderate level of inflation along with economic growth in 2014-15. But a higher level of interest rates still acts as hindrance to the possible growth prospects.

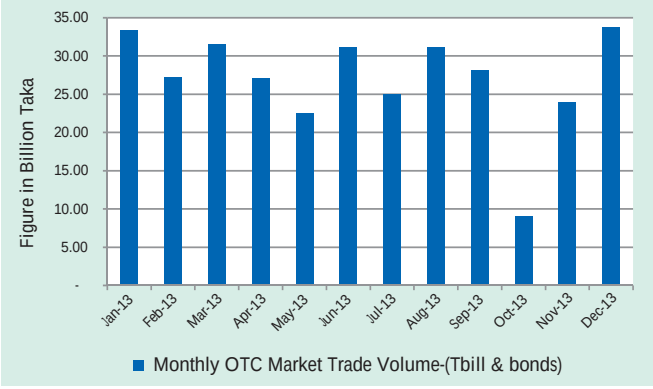
7.2.3 Secondary Treasury Bills/Bonds Market

The Over the Counter (OTC) market was one of the main sources of liquidity for the private commercial banks (PCBs) in 2013. On the aggregate, PCBs dominated both the buy and sell side of the OTC market. The intention of the transactions from the buy side participants was not only to take a position in the securities, but also to ensure near term liquidity through that position(s).

Trading of treasury securities on the traditional platforms (at DSE and TWS) was minimal. In fact, at DSE, there was no trading of treasury securities over the year of 2013. At TWS, bonds were traded only in the amount of BDT 3.56 billion. Importantly, all of the trades were conducted by scheduled banks; no other financial institution or trader of any other kind was involved in those transactions.

[52]Investors will often buy long-term bonds to capture higher yields. This causes prices of these bonds to appreciate and their yields to move down closer to short-term rates, resulting in a flattened yield curve.

Chart 7.8 : Monthly OTC market trade volume over the year 2013



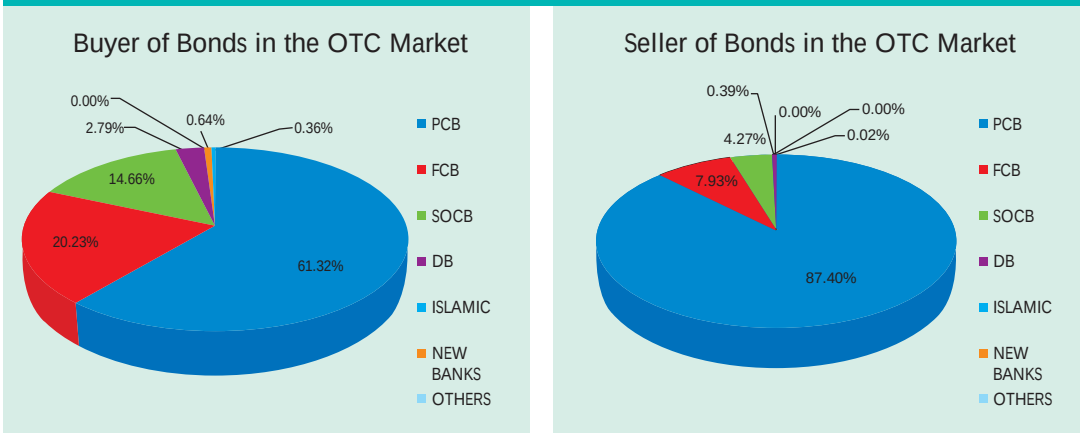
Source: Department of Financial Institutions & Markets, BB.

The Over the Counter (OTC) market, on the other hand, showed a significant amount of activity over the last year. The total amount of treasury bills and bonds transacted was BDT 324.45 billion. On a monthly basis, treasury securities were traded almost uniformly except the month of October (trade volume amounted BDT 9.11 billion).

January was the most active month, accounted for BDT 33.40 billion of trade volume. Private commercial banks were the major participants of the OTC market. On the buy side, they had 61.32 percent of the market share of the traded volume, and on the sell side, 87.40 percent of the volumes were contributed by the PCBs. Other than banks, outside participants were at a minimum, comprising only 0.36 percent on the buy side and 0.02 percent on the sell side. (Banks run on Islamic principles did not participate in the OTC market.)

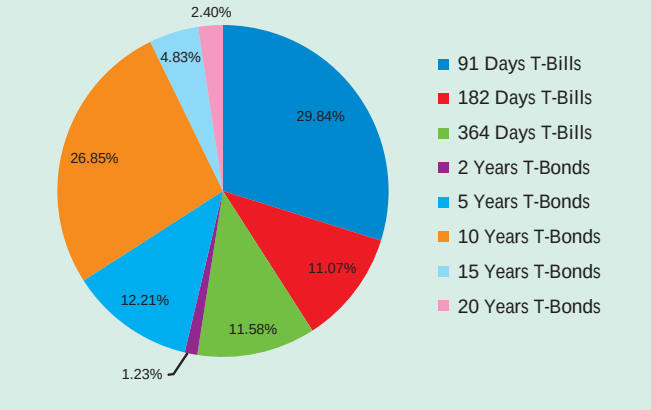
Private commercial banks, on a net basis, cashed out almost BDT 84.61 billion over the year from OTC market. On the other hand, foreign commercial banks and state owned commercial banks contributed, on a net basis, about BDT 39.92 billion and BDT 33.72 billion respectively.

Chart 7.9 : Trade pattern of bonds on the OTC market: by types of participants



Source: Debt Management Department, Calculation: FSD

Chart 7.10 : OTC trading by tenor of the issue, CY 2013



Source: Bangladesh Bank website, Economic Data

OTC market participants certainly showed their particular preference towards some issues with specific original maturity. Most of the long term bonds traded were off the run treasury issues. The popular choice with the traders was 91-day T-bills and 10-years T-bonds, which comprised 29.84 percent and 26.85 percent of the total trade volume respectively.

A significant amount of trade involved the issues that had a closer term to maturity (remaining maturity). For a majority of the transaction, the yield to remaining maturity stayed within the band of 6.50 percent to 13 percent.

7.3 Stock Market

Efficient capital markets are important for financial stability, as vibrant capital markets contribute to a better pricing and efficient allocation of financial resources in the economy. In 2013, the main bourses in Bangladesh, the Dhaka Stock Exchange and the Chittagong Stock Exchange (DSE and CSE) showed improvement in terms of index movement and trade volume, but remained volatile. The number of listed companies has grown but the growth in issued capital decelerated. The market capitalization ratio is still declining, means the stock market is still not keeping up the pace with the aggregate economy. The main price index gained less than 5 percent, showing, on average, that the real growth in the market is negative if adjusted by inflation.

7.3.1 Market Size

Market Capitalization increased by 10.16 percent whereas issued capital increased by 5.25 percent.

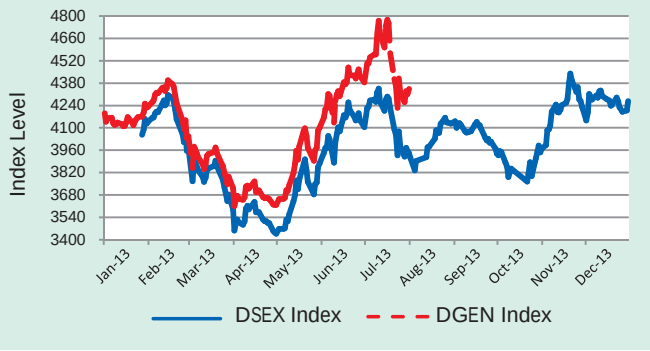
DSE, with 256 companies and 529 listed securities, is the country's prime bourse, considering its ample contribution to the capital market[53]. The total market capitalization of DSE stood at BDT 2647.79 billion (as of 30 December 2013) increasing about 10.16 percent from the previous year end balance of BDT 2403.56 billion (as of 30 December 2012).

A total of 156 listed companies out of 256 (at DSE) increased their paid-up capital amounting to BDT 31.42 billion by issuing bonus shares[54], and 6 companies increased their paid-up capital amounting to BDT 1.80 billion by issuing rights shares during CY 2013. A total of 14 companies floated IPOs in CY2013. As a result, the total issued capital at DSE climbed to BDT 979.99 billion on 30 December 2013 from BDT 949.88 billion on 30 December 2012, scoring an increase of 5.25 percent over the period.

7.3.2 DSEX Index Movement

The index ended slightly higher, but volatility still remains a concern. The DSE General Index was prematurely discontinued, as data for the surviving DSEX index is not available over long term. Investors will be in some difficulties while making long term fundamental investment decisions, as full "capital market cycle" data are not available. Market behavior will be difficult to interpret for the time being.

Chart 7.11 : DSEX index movement (CY2013)



Source: Recent Market Information, www.dsebd.org

The DSEX index, starting from 27 January 2013 to 30 December 2013, had increased by 4.94 percent. It was at its lowest (3438.90) on 30 April 2013 and at its highest (4439.60) on 20 November 2013. It did not show any particular trend over that period, though a few short-lived upward and downward trends were observed.

[53] Apart from the shares of the listed companies, there are 41 Mutual Funds, 8 Debentures, 221 Treasury Bonds and 3 Corporate Bonds listed and traded at DSE

[54] Out of 30 listed banking companies, 22 issued bonus shares, amounting to BDT 15.13 billion in CY 2013.

However, volatility was observed to be higher in the first half of the year, and it declined to a lower level but remained significant during the second half.

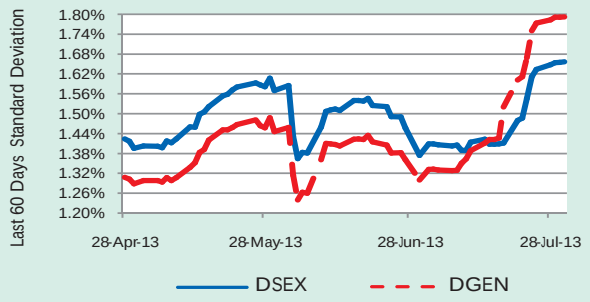
Box 7.1 : End of an era

Discontinuation of DSE General (DGEN) Index

DSE decided (on its 749th Board Meeting) to discontinue its DGEN Index from 1 August, 2013. DGEN was calculated using all shares outstanding, based on their market capitalization, whereas the new DSE Broad Index ('DSEX') and DSE 30 Index ('DS30') are based on free float and Standard and Poor's (S&P) methodology, with effect from January 27, 2013. The DSEX reflects around 97 percent of total market capitalization. Eligible stocks for 'DSEX' must have a float-adjusted market capitalization above BDT 100 million. To exist in the DSEX, a stock must have a minimum six-month average daily value traded (ADVT) of BDT 1 million as of the rebalancing reference date.

The problem with the DGEN index was that it was not a good representative of the market (as it was not float adjusted), and it became more volatile compared with the DSEX index, perhaps resulting in an unnecessarily clouded view, casting negative shadows over the public sentiment.

Chart B.1 : DSEX index movement volatility (CY2013)



Source: DSE Monthly Review
Calculation: Financial Stability Department

Since the inception of the DSEX index (on 27 January, 2013) up to the discontinuation of DGEN index (on 31 July, 2013), both indexes were live. During that period, the DSEX index declined by 2.84 percent, whereas the DGEN index increased by 4.10 percent. Index volatilities measured in standard deviation were 17.08 percent and 17.38 percent (over the period) respectively.

It means, over the same period, DSEX and DGEN index moved in different directions, but with almost the same volatility. From 30 June, 2013 to 31 July, 2013, the DSEX declined by 3.99 percent, while DGEN index declined by 0.99 percent.

But the discontinuation of the DGEN index has created some unique problems also. For a starter, a long term fundamental analysis of market behaviour will be severely disrupted. Since DSEX data is available only for a particular short period, DSEX data will probably show a biased result, as the 2010 debacle in the market will not be covered. For a clear, unbiased forecasting and analysis, at least 10-15 years of data is required. It may be a possible threat to financial stability, as the investors may be induced by the analysis based on insufficient and biased data, take decisions that may not be rational and prudent.

Over the year, the DSEX index showed negative skewness and lower kurtosis (compared with the level of normal distribution assumptions). Most of the negative results were produced during the earlier half of the year (January- July, 2013), when the volatility was higher and the market was far more negatively skewed. However, from August, 2013, the market stabilized, showing lower volatility and positive skewness. The descriptive statistics of the index movement are given in the following table:

Table 7.1 : Descriptive Statistics of the Daily Index Movement (January, 2013- December, 2013)

Statistics	January, 2013- December, 2013	January, 2013- July, 2013	August, 2013- December, 2013
Average Return	0.03 percent	-0.01 percent	0.09 percent
Standard Deviation	1.35 percent	1.53 percent	1.07 percent
Skewness	-0.24	-0.30	0.21
Kurtosis	0.95	0.65	0.04

7.3.3 Market Capitalization

Market capitalization increased in 2013, having its first double digit growth since 2010. But over the fiscal year (2012-13) it still failed to keep pace with the nominal GDP growth rate. Liquidity in the market improved, showing increasing confidence of the investors.

Chart 7.12 : Market capitalization trend (December, 2006- December, 2013)

Total market capitalization of the DSE, from December 2006 to December 2013, increased about 8 times, comprising an annual growth rate (compounded) of 35.52 percent. The growth rate was highest in 2010, about 84.32 percent.

Source: Recent Market Information, www.dsebd.org

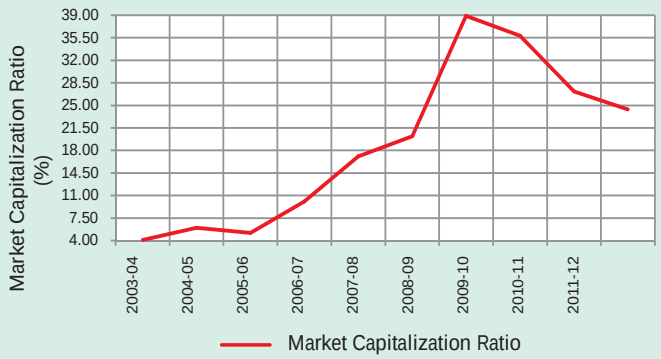
Since then, market capitalization has declined about 28.06 percent with the most recent year posting a positive growth of 10.16 percent. Two important ratios related to market capitalization are needed to be observed closely. One is the market

capitalization to GDP ratio (in percent), explaining the relative size of the market compared with the GDP (in percent) and the other one is the turnover to market capitalization ratio (in percent) explaining the relative liquidity of the market.

7.3.3.1 Market Capitalization Ratio

In FY2003-04, the market capitalization ratio was 4.26 percent and reached to 38.90 percent in FY2009-10 indicating a greater share of financial flows supplied by the major economic agents (i.e., Banks, NBFIs, individuals) present in the economy. However, it turned down to 24.38 percent in FY2012-13, continuing a downward trend begun in the 2010-11 fiscal.

Chart 7.13 : Market capitalization ratio (FY 2003-04 to FY 2012-13)



Source: Monthly Economic Trends, Issue: December, 2013

Chart 7.14 : Market capitalization and GDP growth (FY 2004-05 to FY 2012-13)

Source: Monthly Economic Trends, Issue: December, 2013

GDP growth and growth in market capitalization have not displayed any significant correlation over the last 9 fiscal years[55]. During the plotted period (FY2004-05 to FY2012-13), growth in market capitalization has exceeded GDP growth, but was markedly unstable. In FY 2004-05, growth in market capitalization was 62.51 percent, whereas the nominal GDP growth was only 11.33 percent. In contrast, in FY 2012-13, growth in market capitalization was 1.55 percent and nominal GDP growth was 13.05 percent[56].

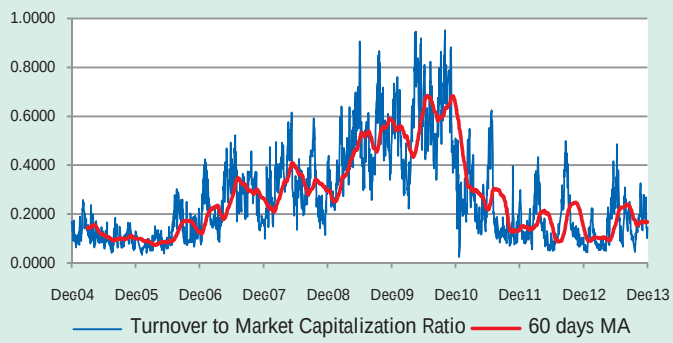
[55] Statistically these two growth variables show no significant correlation.

[56] Market capitalization growth rate acted as a good leading indicator of the nominal GDP growth rate over the period FY2004-05 to FY2012-13, but there is no evidence for Bangladesh, so far, that this relationship will hold in the long term.

7.3.3.2 Turnover to Market Capitalization Ratio

Daily turnover to market capitalization ratio gives some information about the liquidity of the market. A recorded rise in this ratio shows that turnover is increasing faster than market capitalization- (which can be explained by the improved relative liquidity condition due to a high volume of share trading resulting from greater market activities) -It also shows the increasing confidence of the traders, both individual and the institutional (a declining ratio can be explained in the same manner).

Chart 7.15 : Turnover to market capitalization ratio (December, 2004- December, 2013)



The turnover to market capitalization ratio in recent times has been improved since 2012. Intuitively, it is caused by an improvement in investors' confidence and a more comfortable liquid position of the institutional investors.

Source: Recent Market Information, www.dsebd.org

7.3.4 Herfindahl-Hirschman Index (HHI)

The manufacturing sector rallied, but the financial sector share price disappointed. The market as a whole become more diversified compared with 2012.

The market capitalization of the DSE is largely dominated by the financial industry. At end- December 2013, the financial industry held 35.14 percent of market share, with the banking sector alone representing 20.18 percent. However, these dominant positions have been declining somewhat: at end-December 2012, the market shares of the financial and banking industry were 42.63 percent and 26.72 percent respectively.

The manufacturing industry observed a remarkable growth during 2013. The industry possessed a market share of 33.01 percent at end- December 2013, compared with 25.33 percent at-end December 2012.

The Herfindahl-Hirschman Index (HHI), measuring sector-wise concentration in market capitalization, scored 1107 points at end-December 2013, declining from 1293 at end- December 2012.

Table 7.2 : Sector wise Market Capitalization						
Market Capitalization Figures Are as of 30 December 2013						
Sl No.	Sector Name	Amount in billion BDT	percent of Total	HHI (2013)	HHI (2012)	HHI (2011)
1	Banks	424.30	20.18	407	714	1044
2	Financial Institutions	158.43	7.53	57	71	86
3	Insurance	120.77	5.74	33	29	29
4	Mutual Funds	35.37	1.68	3	5	3
5	Foods	127.17	6.05	37	13	7
6	Pharmaceuticals	228.71	10.88	118	67	68
7	Textile	90.48	4.30	18	13	8
8	Engineering	115.27	5.48	30	17	25
9	Ceramics	21.81	1.04	1	1	2
10	Other Manufacturing Industry	17.85	0.85	1	16	12
11	Cement	92.75	4.41	19	0	1
12	Fuel & Power	274.99	13.08	171	141	135
13	Service & Real Estate	9.61	0.46	0	0	0
14	IT	4.70	0.22	0	0	0
15	Telecommunication	300.00	14.27	204	191	115
16	Travel and Leisure	34.01	1.62	3	7	0
17	Miscellaneous	46.56	2.21	5	9	11
	Total	2102.78*	100.00	1,107	1,293	1,545

Source: Monthly Review, Several Issues, Dhaka Stock Exchange Limited

* Only share capitalization, corporate bonds are not included

This level reveals a moderate concentration in the capital market. Intuitively, a declining value implies a diversification in sector market capitalization. The banking sector index was reduced substantially in 2013, because of declining share prices of banks in the secondary market.

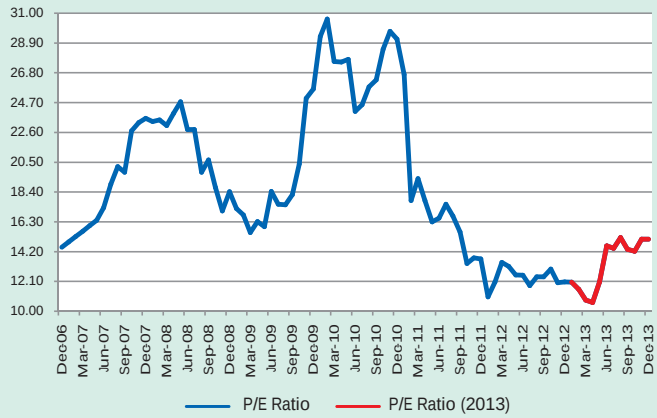
7.3.5 Price Earnings Ratio

The aggregate market P/E is still lower than the long-term average. Earlier in 2013, bad earning reports and higher volatility in share prices caused the P/E to fall. But later it recovered.

The overall weighted average price earnings (P/E) ratio of DSE was 15.07 in December 2013, which is 10.16 percent and 24.86 percent higher than that of December 2011 and December 2012 respectively, indicating an increase in market valuation of companies' share relative to profitability. The P/E ratio of the paper

and printing sector attained the highest value among all sectors at 71.91[57] . The overall market P/E ratio has shown high volatility with a cyclical behavior since December 2006. The average P/E ratio, in the period of December 2006 to December 2013, was 18.43 with a standard deviation of 5.39. In 2013, the P/E ratio peaked at 15.18 in the month of August, and troughed at 10.61 in the month of April.

Chart 7.16 : Market price/earnings ratio (December 2006- December 2013)



The 12 month average P/E ratio was 13.33 indicating a low but stable P/E ratio in the market. The current P/E level is less than 1 standard deviation below the long term average, indicating that shares remain relatively cheap after the market downturn which began in late 2010.

Source: DSE Monthly Review, Several Issues

In 2013, aggregate price level approximately increased by 5.00 percent while P/E increased by 24.86 percent. More than proportionate growth in P/E ratio is caused by the lower EPS growth reported by the listed companies at DSE.

7.4 Analysis: Financial market and stability

2013 can be characterized as a mixed year. Starting with some political and social unrest, the year suffered from many issues that made the environment adverse for business and trade. Eventually, the economy slowed down, loan losses rose, and importantly investors sat back and waited longer to make any long term investment decisions. In the latter part, the financial system regained pace, quenching the thirst for liquidity from the market and, after some liberalizing regulatory steps, financial institutions regained their capacity to explore new investment. After the election of 2014, economy is expected to move back on track, and a vibrant financial market is expected to rule in future.

[57] In December, 2012, banking and financial institutions' P/E were 10.01 and 19.05 respectively.

7.4.1 Overall Market Scenario

The market became stable in the later part of 2013. Both interest rates and the stock index experienced some volatility in the earlier part of 2013, but eased up later. Liquidity improved in the money and bond market. Restoration of the stock market is not an unlikely expectation. Unlike 2012, the current year ended with a positive vibe.

The market started slow at the beginning of the year. Confidence and mood in the market was depressing and low. All the money market trends were showing a liquidity shortage in the system. Starting from March 2013, however, the call money rate started to drop, and remained stable for the rest of the year. The interbank repo rate followed the same pattern. The yield curve showed improvement on the shorter end, but long term rates still remained high. The maturity premium of the 20-year Treasury bond over 91-day Treasury bills stood at 304 basis points in December 2012. It increased to 414 basis points in June 2013 and further increased to 491 basis points in December 2013. Over the period, the 91-day Treasury bill yield to maturity was reduced by 183 basis points and at the same time, the maturity premium increased by 187 basis points, meaning the effect of the easing money market was not propagated through the term structure of interest rates due to an inefficient market structure, specifically absence of a vibrant secondary market for bonds.

Establishing an efficient government domestic currency bond market is not one of the main focuses of this report, but its urgency necessitates some discussion and space of this report. Prerequisites of establishing an efficient government bond market include a credible and stable government; sound fiscal and monetary policies; effective legal, tax, and regulatory infrastructure; smooth and secure settlement arrangements; and a liberalized financial system with competing intermediaries[58]. Priority should be given to adopting and implementing a stable and credible macroeconomic policy framework, reforming and liberalizing the financial sector, and ensuring the proper pace of liberalization in different areas.

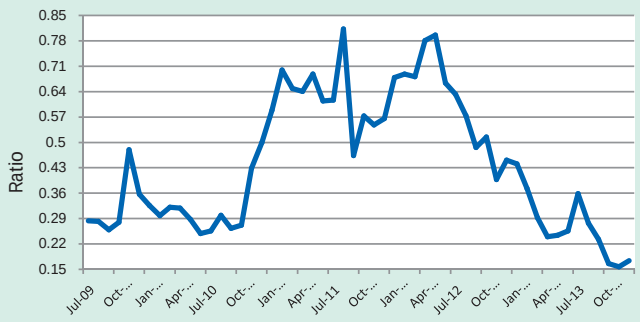
The resulting drop in short term rates is the result of increasing liquidity. Hence, the source of liquidity is important, because if it is not sustainable, the crisis may return on a larger scale.

[58] Developing a government bond market: An Overview, World Bank Handbook, Chapter 1.

In the OTC market, it has been observed that private commercial banks cashed out a huge amount of treasury positions. The main buyer of those securities were state owned commercial banks and foreign commercial banks. At the same time, borrowing from Government by the banking industry increased by 142.93 percent or by BDT 37.40 billion in 2013 compared with that of last year. This excess borrowing provided another source of liquidity. Borrowing from abroad became another feasible option for the banks. Though in short term, borrowing from abroad might have mitigated the liquidity problem for some banks, but over the longer term, this kind of borrowing might introduce some turbulence in case of the depreciation of the domestic currency[59].

Moreover, the credit- deposit ratio declined from 80.04 percent to 71.18 percent[60] over the last twelve months, which imply that deposit growth was higher than that of credit growth. As a result, banks were able to generate some liquidity also from their main operating activities.

Chart 7.17 : Ratio of fund borrowed from BB by banks to cash reserves maintained with BB by banks (July, 2009- December, 2013)



Source: Monthly Economic Trends, Several Issues

The graph suggests the liquidity need of the banks rose during the period (October, 2010- May 2012), as they borrowed at a higher scale from BB. The rise in CRR could not affect the monetary variables that much, due to more than a proportionate rise in the borrowing amount.

But in the later periods, borrowing with respect to cash reserve with the central bank has decreased to a historical low. Borrowing from Bangladesh Bank was obviously not the source of liquidity in 2013[61].

[59] Of course, it depends on the efficient utilization of borrowed funds by the banks.

[60] Source: Department of Off-Site Supervision, Bangladesh Bank.

[61] It is also true for the repo market, as banks are found to be more interested in reverse repos, which confirms their stable liquid positions.

The interbank repo market showed an increasing trend in the latter part of the year, but it was a result of excess liquidity, not the direct cause of it. The call money and interbank deposit markets also eased in December, 2013.

In summary, banks found their liquidity through their operations and day to day fund management. Initially, some boosts were required, but the stone rolled smoothly for the rest of the year. As short term interest rates came down, and the lending and depositing spread also decreased compared with its 2012 level, it is a usual expectation that long term rates will also come down, which will be favorable for long term potential investments also. Banks and NBFIs will be comfortable operating in the money market and bond market, and 2014 is expected to be financially stable, in absence of any sizable outside shock[62].

The stock market, on the other hand, suffered some shocks throughout the year. The index ended slightly higher, but volatility still remains as a concern. Market liquidity (at DSE) declined by 4.83 percent (compared with 2012), though the index increased by 4.94 percent and market capitalization increased by 10.16 percent. This decline in turnover is continuing since 2010, but it is declining at a decreasing rate[63].

The market capitalization ratio declined for the third consecutive year, signaling that the secondary capital market is still operating below an efficient level compared with the aggregate economy. The P/E ratio improved compared with last year, but the reason for improvement was mostly due to the declining earnings per share of the listed companies. Yet the rising price index suggests that the investors' confidence level is rising with the expectations for better economic conditions and improved earnings reporting by the listed companies over the year of 2014.

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[62] Hindrances are the drastic asset quality degradation on banks' balance sheets and the increase in the amount of treasury securities devolved mandatorily to the non- PDs.

[63] Though turnover to market capitalization ratio improved in the later part of 2013, but it remained substantially low in the earlier part of the year. Overall, on a yearly basis, turnover eventually declined in 2013.

Chapter 8

Financial Infrastructure

The payment and settlement system (PSS) is the main pillar of financial infrastructure that enables the transfer of money through accounts of financial institutions to settle financial obligations between individuals, between individuals and institutions, and among institutions. Systemically Important Payment Systems (SIPS)[64] are the subsets of the PSS which have the characteristics that a failure of these systems could potentially endanger the operation of the whole economy to some extent; shocks could be transmitted across the domestic and international financial systems and markets. A bank whose share of transactions (value) cleared through a payment system is relatively high or significant may be considered as a significant SIPS participant. Although disruptions to operations of such SIPS are rare, the potential consequences of such a disruption are substantial and widespread and could lead to a systemic disruption and financial shock even beyond the system and to its participants, which could adversely affect the stability of the financial sector. Therefore, the safety and efficiency of the PSS, particularly the SIPS, is critical for the effective functioning and stability of the financial system.

With a view to ensuring an effective management of payment infrastructure in Bangladesh, Bangladesh Bank (BB) approved the 'Bangladesh Payment and Settlement System Regulation, 2013'. Moreover, it has formulated the regulation on 'Electronic Fund Transfer' for establishing a secured and transparent fund transfer mechanism.

The financial infrastructure, integrated by a 'National Payment Switch' and 'Mobile Financial Services', ensured smooth and reliable transactions throughout CY13, which contributed to the stability of the payments system in Bangladesh.

8.1 National Payment Switch Bangladesh (NPSB)

BB launched the National Payment Switch in 2012 in order to create a common platform for bank cards (Debit/Credit/Pre-paid), internet banking and mobile based

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[64] SIPS, as a subset of the PSS, refer to the entire system and not for the individual institution. For example, the large value transfer system or the electronic fund transfer (EFT) or the Real Time Gross Settlement System (RTGS) would be denoted as a SIPS and the institution running it, such as the Bangladesh Bank, would be called a "SIPS operator". A large bank could be denoted as a "significant SIPS participant".

payments in Bangladesh. All inter-bank domestic transactions originating from any delivery channel (ATM/POS/Kiosk/Mobile/Internet) are being routed through NPSB. This also includes the transactions of those banks that do not have their own switches but use third-party processors (i.e. Q-cash, Cash link etc.).

8.2 Bangladesh Automated Clearing House

The Bangladesh Automated Clearing House (BACH) in BB started the automation of cheque clearing from 07 October 2010 by replacing the traditional manual clearing system.

The BACH integrates two components:

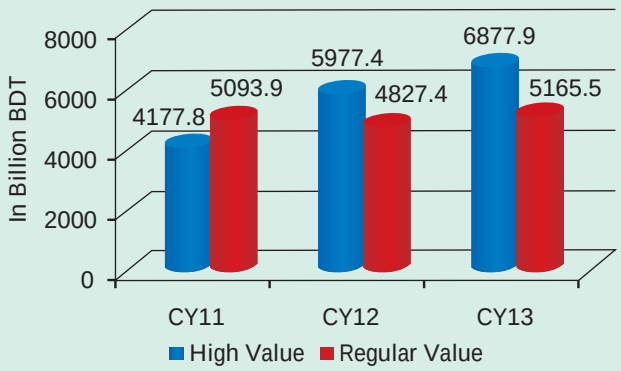
1. The Automated Cheque Processing System; and
2. The Electronic Funds Transfer (EFT).

Both systems operate in batch processing mode - transactions received from the banks during the day are processed at a pre-fixed time and settled through a single multilateral netting figure on each individual bank's respective books maintained with the BB. A state-of-the-art Data Center (DC) and a Disaster Recovery Site (DRS) have been established, consisting of the most modern software and hardware for dealing with the operations of BACH. A Virtual Private Network (VPN) has been created between the participating commercial banks and the DC and DRS for communicating necessary information related to BACH. A Digital Certificate has been formulated for the first time in Bangladesh for secured data communication.

Under this automated clearing system, two types of transactions take place:

a) High Value Cheque Clearing (Cheques amounting to BDT 500 Thousand or more) and
b) Regular Value Cheque Clearing.

Chart 8.1 : Automated Cheque Clearing Operations



Source: Data: PSD, BB; Compilation: FSD, BB

The figure illustrates the trend in high value and regular value transactions over the last 3 (three) years. The volume of high value cheque processing from CY11 through CY13 showed considerable growth, whereas regular value cheque processing fluctuated over the years.

8.3 The Electronic Fund Transfer

The Bangladesh Electronic Fund Transfer Network (BEFTN) started its operation on 28 February 2011 to replace the paper-based payment methods with a paperless process, with a view to ensuring secured, faster, and cost-effective transactions, mainly in the corporate sector. This network introduced credit and debit transactions from 15 September 2011. This facility ensures the transmission of payments between the banks electronically, which makes it a faster and efficient means of inter-bank clearing over the existing paper-based system, i.e. Bangladesh Automated Cheque Processing System (BACPS). It is able to manage a wide-variety of credit transfers such as payroll, foreign and domestic remittances, bill payments, dividend payments, tax payments, as well as debit transfers such as mortgage payments, membership dues, loan payments, insurance premiums, utility bill payments, government tax payments, and government licenses and fees. On average, approximately 21,072 EFT transactions were processed in a day in CY13. Total monetary amount of EFT transactions under BEFTN in 2013 was BDT 396.1 billion, which is 44 percent higher than 2012 transactions.

8.4 Mobile Financial Services

Mobile banking can be the perfect platform for Bangladesh to offer financial services to the country's largely unbanked population in an efficient and low-cost manner. The rapidly-expanding mobile communication system in Bangladesh has opened up windows of opportunity for creative partnerships of banks and mobile telephone companies in devising cost effective arrangements for the delivery of financial services.

In order to ensure the access of unbanked people by taking advantage of countrywide mobile network coverage, Mobile Financial Services (MFS) have been introduced in Bangladesh. BB issued the "Guidelines on Mobile Financial Services (MFS) for Banks" in September 2011 and subsequently amended the guidelines in December 2011 to make the mobile financial market 'bank-led'. Only banks are allowed to lead the mobile financial services. This model offers an alternative to conventional branch-based banking to the customers through appointed agents being facilitated by the Mobile Network Operator (MNO)/Solution Providers instead of bank branches or through bank employees. In so doing, BB allows a customer's account, recognized as 'Mobile Account' to be attached with the bank and be accessible through the customer's mobile device. The mobile account should be a non-chequing account classified separately from a standard banking account. In this regard, BB has encouraged the MNOs and microfinance institutions to be Partner Organizations of MFS.

BB has fixed the transaction limit for the account holders of MFS at a maximum of BDT 10,000 daily and a total of BDT 25,000 on monthly basis vide DCMPS Circular No. - 10/2011 December 14, 2011. A holistic view of the MFS status as of end-December 2013 is given in the table below:

Table 8.1 A holistic view of the Mobile Financial Service status	
Number of Banks Permitted	28
Started MFS Operation	19
Registered Customers	1,31,80,000
Agents	1,88,647
Transactions (BDT Billion)	6.64

Source: Data: PSD, BB; Compilation: FSD, BB

8.5 M-Commerce

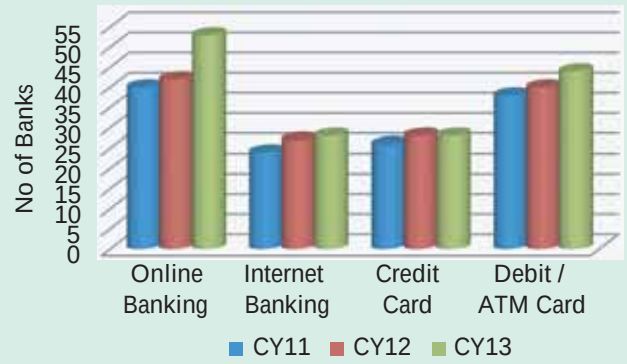
In CY13, approximately 9.1 million utility payments (water, gas and electricity) were transacted through GrameenPhone and Banglalink, which was around 63 percent higher than that of the previous year (CY12). The total monetary amount of this kind of transaction was about BDT 982.1 billion in CY13. However, the reverse scenario was observed in regard of selling railway tickets through M-ticketing. Approximately 163,000 train tickets were sold during CY13 (13,580 tickets per month) which was 21.0 percent less than that of the previous year. This might be due to the increasing popularity of some other alternative means of purchasing tickets such as E-Ticketing.[65]

8.6 Electronic Banking Operations

Most of the commercial banks have developed their Core Banking Solutions to facilitate better service. Out of 56 scheduled banks, 52 banks provide full or partial online banking services. Plastic cards (debit/credit cards) are becoming more popular and banks are offering these to attract new customers and retain their customer base.

[65] Refers to the Electronic Ticketing System. Purchasing tickets through Internet is another convenient way to travel with Bangladesh Railway. In this system, train tickets can be booked through online. Booking details are then e-mailed to the customer instantly after payments are done through his/her VISA/MASTER/DBBL Nexus cards.

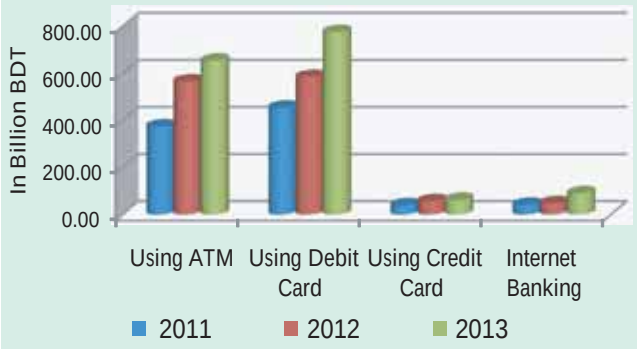
Chart 8.2 : Numbers of banks providing electronic banking facilities in CY11, CY12, and CY13



Source: Statements from Scheduled Banks

Chart 8.2 demonstrates an increasing trend in the adoption of electronic banking features during CY11-CY13. Although the number of banks introducing credit cards during CY12-CY13 became stagnant, there was a significant increase in online banking operations in CY13. Moreover, 460 new ATM machines were set up during CY13.

Chart 8.3 : Volumes of electronic banking transactions



Source: Scheduled Banks

Chart 8.3 describes an increasing trend in the monetary volume of electronic banking transactions in Bangladesh. The volume of transactions using debit cards increased faster in 2013 than previous years. Moreover, the increasing trend in the transaction volume using ATMs shows a significant growth in electronic banking. However, the volume of transactions using credit cards experienced a slower increase in 2013 compared with preceding years, because banks have been extremely careful about giving credit cards to people who do not have repayment credibility or capacity. On the other hand, transactions through internet banking rose about 86.0 percent in CY13 from CY12.

8.7 Central Depository System

The Central Depository Bangladesh Limited (CDBL) was incorporated on 20 August 2000, sponsored by the country's state-owned commercial banks (SCBs), Investment Corporation of Bangladesh (ICB), private commercial banks (PCBs), foreign banks, merchant banks, publicly listed companies, insurance companies and Dhaka and

Chittagong Stock Exchanges (DSE and CSE) with the collaboration of the Asian Development Bank (ADB). It provides services to the capital market, covering settlement of trades on the Dhaka and Chittagong Stock Exchanges. In addition to this, CDBL also performs the settlement of OTC transactions (Over the Counter) of government's debt securities (treasury bills and treasury bonds) auctioned by Bangladesh Bank.

CDBL's operations are carried out in its main data centre that is linked to a remote Disaster Recovery Centre (DRC). All necessary data are being updated simultaneously. Depository participants, issuers, commercial banks, stock exchanges and the central bank are all connected to the network interface by WAN link and dial-up telephone lines.

Currently, there are 321 full service depository participants (DPs), 4 Exchange DPs, 85 Custodian DPs and 44 Treasury DPs registered under CDBL. In addition, there are 320 issuers and 316 ISIN (International Securities Identification Number) registered under CDBL. Each ISIN uniquely identifies a security. Securities to which ISINs were issued include debt securities, shares, mutual funds, and others.

Box 8.1 : Frauds in E-banking and its preventive measures

Frauds in E-banking and its preventive measures

Frauds in E-banking can be exhibited in the form of any of the followings: spam, scams, spyware, phishing etc. Due to technological development and ease in accessing the information infrastructure, frauds in E-banking are growing day by day.

E- banking fraud strategies

Most of the E-banking frauds take place in two consecutive stages. In the first stage, the criminal/hacker tries to obtain the customer's account access data, i.e. logon name and password. In the second stage, the criminal/hacker uses this information to transfer money to other accounts or withdraw the funds directly. To obtain the customer's account information, criminals/hackers employ different strategies (examples shown below) depending on the nature or situation.

In the *'over the shoulder looking'* strategy, a criminal observes a customer while performing financial transactions.

In the *'phishing'* strategy, the crime takes place by using counterfeit emails and/or fake websites. The word *'phishing'* comes from combining two words namely *'password'* and *'fishing'.* Criminals send emails that may appear to be from the customer's bank which can direct customers to a fake website. Such website impersonates the bank's website and prompts the customers for their account access information. In order to stop phishing, banks are required to execute customer education programs aiming at reducing the effectiveness of the strategy. It should, however, take a while before all customers are smart enough to eradicate phishing.

The *'Trojan horse'* strategy is based on embedding the computer virus type software on the customer's personal computer. Trojans often tie themselves into the keyboard driver and record keystrokes. Once a Trojan detects the customer opening an E-banking website, it captures logon name and password, and sends that information to the criminal.

How can a Bank prevent E-banking fraud?

1. One Time Password (OTP)

To improve the security of E-banking transactions, some banks use *'one time passwords',* also called OTP. Upon activation of the customer's account for E-banking, some banks email a list of OTPs to the customers. Each time a customer conducts the transaction, he enters one OTP for identity verification. Once used, the OTP becomes invalid. If the customer runs out of OTPs, a new list of OTPs is sent to him.

2. Hardware Tokens

The high-tech alternative to paper OTP lists are *'hardware tokens'.* These devices have the form factor of a key chain attachment, featuring a crypto processor and a display. A hardware token displays a new OTP every 60 seconds. Because each OTP is only valid for a limited period of time, they provide significant protection against *'over the shoulder looking'* and *'phishing'* strategies.

3. Transaction Specific OTPs

The shortcoming of both paper based OTP lists and hardware tokens lies in the fact that each OTP is not transaction specific. That is, the same OTP can be used to verify either a genuine or a fraudulent transaction. One possible way to come out from the flaw is to use a *'key generator'* device that generates an OTP based on primary transaction parameters.

4. OTP by SMS

Some of the disadvantages of using key generators can be avoided by sending OTPs to the customer using the short message service (SMS). With this approach, the customer first sends the complete transaction to the bank's server. The bank's server then creates a random number as OTP and sends it to the customer's mobile phone as SMS. The customer then enters the transaction specific OTP into the online banking application, and the application sends the OTP to the bank's server.

5. Fraud Prevention Solution

Banks may install a flexible and highly configurable risk assessment and fraud prevention solution to monitor a variety of products and channels in both the payment and electronic card processing services. This kind of solution should include some important features for fraud prevention, some of which are as follows:

1. Account monitoring of activities to detect suspicious account behavior or account takeover whether from new or existing accounts;
2. Detection of suspicious activities with any kind of financial transactions e.g. domestic payments through credit cards, debit cards, and international transfers (SWIFT);
3. Real-time and high-performance fraud detection technology for large data feeds;
4. Lowering of false positive ratios due to fuzzy controlled technology with pattern recognition, network analysis and conventional rule based prevention;
5. Monitoring transactions and customer accounts across multiple channels (e.g. Internet banking, Mobile banking, E-banking, or Call Centers) that could enable financial institutions to identify and combat complex fraud schemes;
6. Integrated Action and Response management such as to hold/stop payments or send letters to customers, if appears necessary.

8.8 Other Information on Technological Developments in the Financial System

Bangladesh Bank has developed the agent banking framework in 2013 with a view to creating an enabling environment for commercial banks to offer financial services to a new customer base. Agent banking regulations permit an agent to provide limited-scale banking and financial services to the underserved population through authorized agents on behalf of a bank under a valid agency agreement. Agents' activities are within the normal course of banking business of the scheduled banks but take place in locations other than bank premises and ATM booths. In the agentbanking mechanism, the agent of the commercial bank may collect small-value

cash deposits and process cash withdrawals, handle inward foreign remittance disbursements, facilitate small-value loan disbursements and recovery of loan installments, facilitate utility bill payments, facilitate cash payments under the social safety net program of the government, generate and issue *'mini'* bank statements, sell crop and other insurance, etc. Agents are equipped with IT devices like Point of Sale (POS), card readers, barcode scanners, mobile phones, PIN pads and Personal Computers (PCs) that are connected with their banks' servers using personal dial-up connections or other connections. Identification of the customer is done through a PIN/ biometrics.

Real Time Gross Settlement (RTGS) is an electronic settlement system in which the transfer of funds or securities will take place from one bank to another on a 'real time' and on 'gross' basis.

Settlement in 'real time' means the transaction is not subjected to any waiting period. 'Gross Settlement' means the transaction is booked in the central bank's account on a one-to-one basis without netting with any other transaction. Once processed, payments are final and irrevocable.

RTGS can be used for local currency settlement, foreign currency settlement, and for government securities settlement. The benefits of RTGS include the elimination of credit risk and systemic risks, the reduction of settlement risk in foreign exchange and government securities, boost economic activities and better customer service.

190 countries around the world are using the RTGS for ensuring the fastest payment and settlement system[66]. Recently, Government of Bangladesh (GoB) has undertaken a project titled 'Institutional support for Migrant Workers' Remittances' with an estimated cost of USD 2.0 million in which the sub-component 'A' titled 'Remittance and Payment System Infrastructure Development' will be implemented by Bangladesh Bank (BB). The main objective of the project (in particular, the sub-component applicable to BB) is to improve the payment settlement system of Bangladesh. Under the project, the Asian Development Bank (ADB) has given USD 1.7 million to set up the hardware and the software required for the RTGS while the World Bank will provide technical support. Successful completion of the project will improve the following aspects of payment and settlement systems: 1) Real time settlement of large interbank transactions, 2) Real time, risk-free and convenient settlement of call money market transactions, 3) Real time settlement of government securities and secondary bond market transactions through on-line, 4) Increase the flow and settlement of international and domestic remittances, and 5) Real time settlement of interbank foreign exchange transactions.

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[66] Derived from the website:
http://www.bangladesh-bank.org/recentupcoming/news/feb192014newse910.pdf

Table 8.2 Implementation timeline for RTGS	
Vendor Selection	August 2014
System Installation	March 2015
Acceptance Testing	June 2015
Go Live	July 2015

Source: http://www.bangladesh-bank.org/recentupcoming/news/feb192014newse910.pdf

8.9 Possibilities for future development

Bangladesh could establish a Central Counterparty (CCP). CCP is a clearing house that interposes itself between counterparties to contract trades in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensures the future performance of open contracts in inter-linked markets. Establishment of a CCP will increase market safety and integrity by mitigating counterparty risks, liquidity and operational risk, addressing information asymmetries, reducing complexity, and increasing efficiency of the clearing mechanism.

Since the financial market in Bangladesh is developing gradually, more sophisticated and complex products such as futures contracts and options are waiting to come on board. Therefore, future consideration should be given in establishing a CCP to minimize the payment settlement risks and increase the efficiency of the clearing mechanism for these derivatives. There is another consideration of CCPs that must be considered for financial stability. On the one hand, a CCP can enhance the resilience of a market, through a range of direct and indirect channels. These include reducing some interdependencies of market participants, as well as providing a centralized mechanism to assist in resolving participant defaults and other crisis management arrangements. On the other hand, there might be systemic risk implications if a greater concentration of exposures or dependencies among market participants resulted from a shift to centrally cleared arrangements. Of course, the greatest concentration of risk is with the CCP itself, thereby embedding the systemic importance of these facilities. Though risks can be mitigated through the efforts of CCP operators, market participants and regulators, they can never be eliminated. Given the central role of a CCP, any failure of a CCP would have serious consequences for financial markets. The management of a participant's default may also have significant implications for domestic market functioning. Keeping the pros and cons in mind, Bangladesh Securities and Exchange Commission (BSEC) has already incorporated a plan for establishing a CCP in their detailed master plan. On the other hand, the Financial Stability Department of BB will prepare an analytical report regarding the capital requirements for bank exposures to a CCP and coordinate the relevant matters with the BSEC.

Chapter 9

Foreign Exchange Market

9.1 Introduction

During the CY13, the foreign exchange (FX) market in Bangladesh demonstrated resilience with low volatility. The Bangladesh Taka (BDT) started to appreciate against USD from June 2013. Although there was a surplus overall balance of BOP and significant rise in foreign exchange reserve, the BDT/USD exchange rate remained stable till December 2013. As mentioned in chapter 2, the huge current account surplus and the higher financial inflow led the overall balance record a surplus of BDT 409.9[67] billion in FY13. There was also a significant increase in the gross foreign exchange reserve. During July-December 2013, Bangladesh Bank purchased USD 2.35 billion from domestic FX market to prevent further appreciation of BDT against USD and keep the exchange rate stable.

9.2 Foreign Exchange Assets and Liabilities

The FX market is an indispensable part of the financial system in Bangladesh. This market is very active with 935 authorized dealer (AD) bank branches and 237 Money Changers. The share of the ADs' total assets constitutes about 3.46 percent of the aggregate assets of the banking sector in CY13. However, actual assets and liabilities denominated in FX are minor relative to total bank balance sheets. As of 31 December 2013, the total amount of foreign exchange assets and liabilities were only USD 3.56 billion and USD3.36 billion respectively. In CY13, about 3.46 percent of aggregate banking sector assets consisted of FX denominated assets and about 3.26 percent constitute FX denominated liabilities. Foreign exchange assets are held in five major accounts; namely BB clearing account, cash holding, debit balance in nostro account in local banks, foreign currency bills purchased, placement abroad, and others.

Chart 9.1 shows the share of each of the above components of foreign exchange assets. The placement abroad contributes 25.0 percent of its total assets, i.e. the ADs invested about 25.0 percent of its total FX assets abroad. The placement abroad has an important bearing on FX stability in the sense that cross-border turbulence may affect the FX market in Bangladesh.

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[67] The calculation is based on BPM6 manual. Customs record is used to calculate import fob FY11 and onward. Banking channel data was used for calculating import fob for FY10 and onward.

On the other hand, foreign exchange liabilities are held in eight major accounts. These are back to back L/C fund awaiting for remittance, credit balance in nostro account from local banks, exporters' retention quota, foreign currency deposits account, Foeign Demand Draft (FDD), Telegraphic Transfer (TT), Mail Transfer (MT), Non-Resident Foreign Currency Deposit (NFCD) accounts, Resident Foreign Currency Deposit (RFCD) account and others. Chart 9.2 depicts the shares of each of the components of foreign exchange liabilities. About 35.0 percent of foreign exchange liabilities are held as back to back fund awaiting for remittance. 15.0 percent of liabilities are kept in foreign currency accounts, while 25.0 percent are held for other purposes.

Chart 9.1 : Components of foreign exchange assets

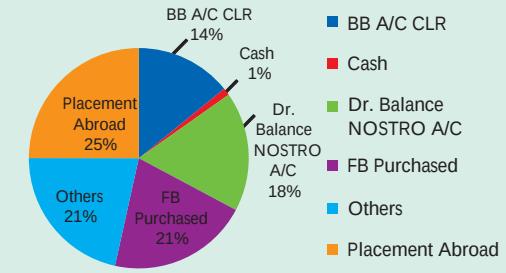
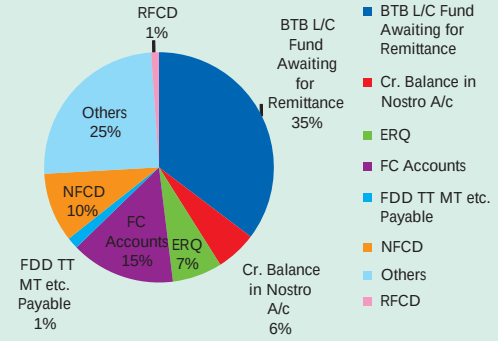


Chart 9.2 : Components of foreign exchange liabilities

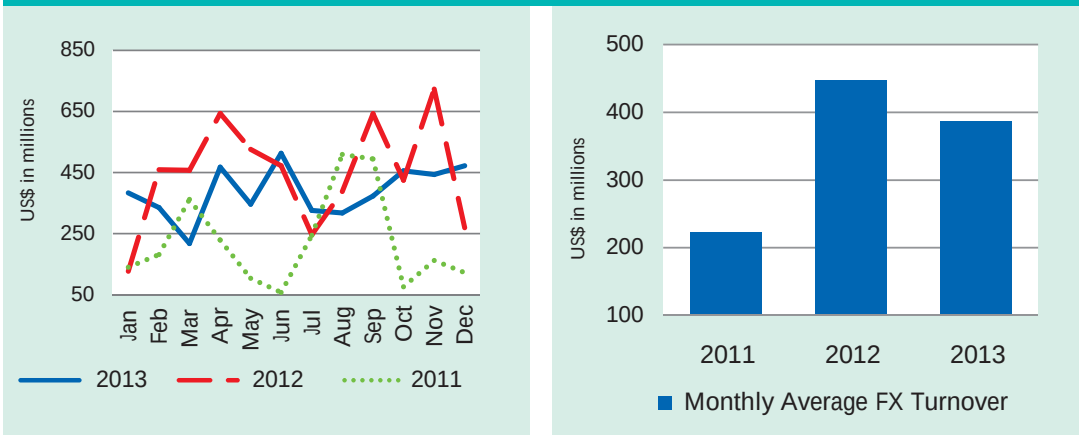


Source: Foreign Exchange Policy Department, Bangladesh Bank

9.3 Foreign Exchange Turnover

Almost all dealings/transactions are executed in the spot market. Forward transactions are rarely done. The FX derivative markets, such as futures, options, swaps, etc., are permitted for transaction. The FX market was extremely active in Bangladesh over the current calendar year. Almost 90.0 percent of inter-bank FX transactions were done in USD. The monthly average turnover of inter-bank FX transactions was USD 387.4 million in CY13, which was USD 448.2 million in CY12 and USD 223.4 million in CY11. The monthly average trade volume almost doubled in CY12, but decreased by 13.6 percent in CY13 compared with the preceding calendar year. During the CY13 the total turnover of inter-bank FX transactions was USD 4649.4 million, 1.31 times of total foreign exchange assets.

Chart 9.3 : Foreign exchange turnover

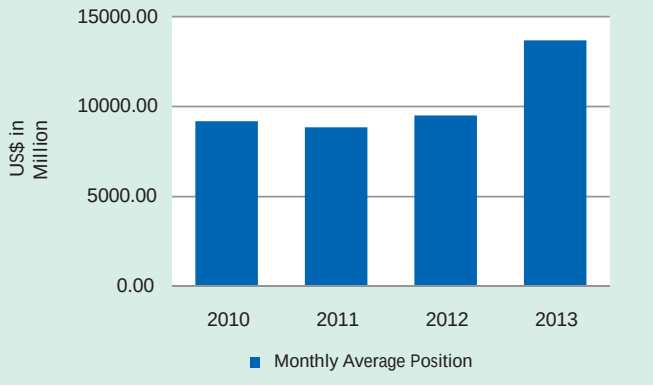


Source: Forex Reserve and Treasury Management Department, Bangladesh Bank

Chart 9.3 depicts the trend of foreign exchange turnover in the preceding three consecutive years. During CY11, the foreign exchange turnover was low as well as unstable compared with that of the succeeding two calendar years (standard deviation: 154.2). In 2012, the turnover position became more volatile, with a standard deviation of 175.3. The foreign exchange turnover in CY13, however, was much more stable with a standard deviation of 84.9. The inter-bank FX trade volume decreased by 13.6 percent in CY13 compared with that in CY12. Political turbulence during CY13 could be one explanation of the lower volume of trade in the FX market.

9.4 Foreign Exchange Reserve Position

Chart 9.4 : Gross foreign exchange reserve position



Source: Monthly Economic Trend, Bangladesh Bank

Gross foreign exchange reserves reached a peak in CY13. From December 2011, foreign exchange reserves started to increase, and the trend remained same also for CY12 and CY13. At the end of December 2013, the reserve reached USD 18.1 billion, 41.8 percent higher compared with the corresponding month of 2012. The FX reserve can meet about 6 months' import (c&f) obligations of Bangladesh.

9.5 Exchange Rate Movement and Its Volatility

The monthly weighted average nominal exchange rate demonstrated a very smooth and stable scenario. The fluctuation of the nominal exchange rate movement was very negligible. The minimum BDT/USD nominal exchange rate was 77.8, while the maximum was BDT/USD 79.5 in CY13, i.e. the difference between maximum and minimum BDT/USD was 1.7, which was very much smaller compared with 8.6 and 3.1 in CY11 and CY12 respectively.

Chart 9.5 shows that BDT started to depreciate against USD from January 2011, and the depreciation continued until January 2012. At that point, it started to appreciate over CY2012 with a period of stability mid-year. Again it started to appreciate from January 2013, and continued to appreciate until June 2013, remaining stable onward from that point.

Chart 9.5 : Exchange rate movement

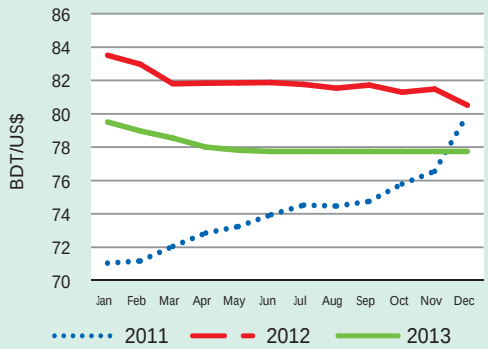
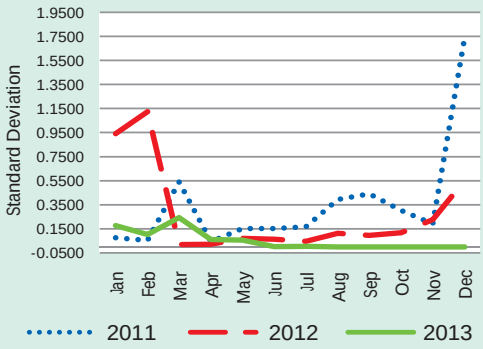


Chart 9. 6 : Volatility of nominal exchange rate

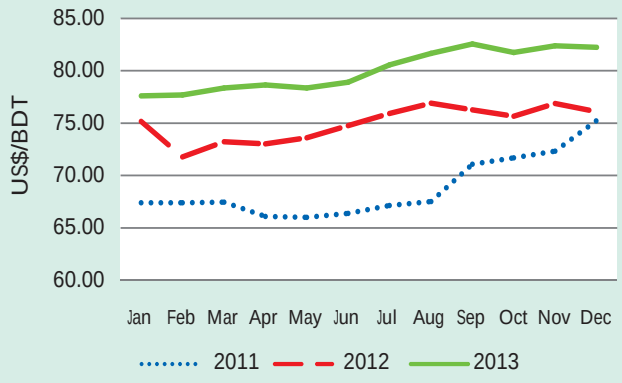


Source: Forex Reserve and Treasure Management Department, Bangladesh Bank

When using standard deviation as the volatility measure of the FX market, the fact emerges that the foreign exchange market was more stable in CY13 compared with the two preceding calendar years.

9.6 Movement of REER and Its Volatility

Chart 9.7 : REER Movement



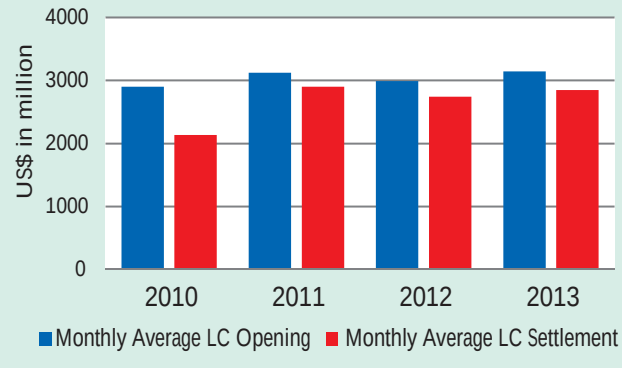
Source: Monetary Policy Department, Bangladesh Bank

It is observed that the real effective exchange rate was more volatile, compared with the nominal exchange rate, in CY13. The minimum BDT/USD REER was 77.6 in January 2013 and maximum was 82.6 in September 2013. The difference between the minimum and maximum BDT/USD REER was 5.0 in CY13, while it was 9.3 and 5.1 in CY11 and CY12 respectively. When using standard deviation as the volatility measure, CY13 displayed a more volatile scenario than CY12 and less volatility than CY11.

Despite the continued positive trend in current account balance, overall balance in BOP, and foreign exchange reserve, BDT did not appreciate against USD from June 2013. One possible explanation may be that Bangladesh Bank purchased USD 2353 million during the July-December 2013 period to prevent BDT from further appreciation against USD. The political turmoil during the second half of CY13 could also be another reason behind the low volatility of BDT/USD rate in that period. The decrement in monthly average inter-bank FX turnover by 13.6 percent during CY13 compared with CY12 could partially be attributed to the impact of political unrest.

9.7 Monthly Average of LC Opening and LC Settlement

Chart 9.8 : LC opening and LC settlement



Source: Major Economic Indicator, Bangladesh Bank

While the LC opening and LC settlement positions decreased in CY12 compared with CY11, these positions increased in CY13 compared with CY12. The amount of LC opening increased by 5.3 percent and the LC settlement increased by 4.0 percent in CY13, compared with CY12.

Chapter 10

Developments in the Financial System

In order to reignite the engines of economic growth, the role of the financial system has become even more vibrant and pronounced in recent years. Bangladesh has embarked on a path to reform its financial system and is taking a number of initiatives with a view to achieving greater efficiency; in this backdrop to ensure a long-term sustainable expansion of the financial system, a substantial policy change is also taking place in the role of regulatory bodies. The concerned regulatory bodies are in charge to provide the beneficiaries/end users with the trust and support necessary to take risks and therefore, to contribute significantly in economic development. With a view to accomplishing a supportive role for the stakeholders of the financial system, it is necessary to strengthen institutions through more efficient and effective legal and regulatory frameworks, as well as enhanced corporate governance mechanisms. In this endeavor, the following initiatives have been introduced in the financial system of Bangladesh during CY 2013.

10.1 Coordinated Supervision Framework

Policy coordination among the regulators is the key to promote stability in the financial system. Bangladesh Bank (BB) has taken an initiative to develop a *'Coordinated Supervision Framework'* for maintaining financial stability, considering the individual roles of regulators without creating any conflicts over polices adopted by the individual regulators. BB, in the mean time, prepared a preliminary draft concept paper on this proposed framework and submitted it for the consideration of the coordination council[68] in its quarterly meeting. In this regard, a working committee, comprising the officials from Bangladesh Bank, Bangladesh Securities and Exchange Commission, Insurance Development and Regulatory Authority, Microcredit Regulatory Authority and Registrar of Joint Stock Companies and Firms, has been formed and is being supported by Bangladesh Bank. The working committee is obliged to finalize this concept paper with the approval of coordination council by 2014 and subsequent consideration of the Ministry of Finance for

[68] A high-powered coordination council has been formed under a memorandum of understanding (MoU) with the institutions mandated for financial sector regulation in Bangladesh in 2012, under the chairmanship of the Governor of Bangladesh Bank.

adoption of the framework by the financial system. Officials of the abovementioned regulatory bodies will be members of the coordination committee and a fresh memorandum of understanding on formation of the committee will be signed by the five regulators.

10.2 Financial Projections Model

The Financial Projections Model (FPM) is a multi-purpose analytical tool which has been developed in collaboration with World Bank and is directed to the banks to identify potential/contingent risks inherent in the financial system as well as to ensure the soundness of the entire system.

The FPM is fully customized to reflect the existing prudential, regulatory and accounting practices in the financial sector of Bangladesh. It is, therefore, ready for integration into the supervisory process of Bangladesh Bank (BB) as a tool and is being introduced in the banking system from early 2014 to: (i) assess the strengths and weaknesses of individual banks in the system based on hypothetical scenarios; (ii) perform comprehensive scenario analyses to identify risks; and (iii) improve BB's risk assessment capacity for individual banks.

10.3 Interbank Transaction Matrix

With a view to assessing the risk arises from the liquidity interdependence and placements among the institutions in banking system, Bangladesh Bank introduced a liquidity monitoring tool known as the 'Interbank Transaction Matrix' covering all the banks and NBFIs. A circular[69] has been issued in this regard instructing all the banks and NBFIs in late 2013. It is helping to analyze and review the interbank transactions regularly to detect the risks arising from the interconnectedness among the banks and non-bank financial institutions. Identifying highly interconnected institutions has since become one of the key objectives of systemic risk assessment and a necessary prerequisite for developing a well-organized macroprudential supervision framework. This matrix, indeed, will help in finding such institutions and give early warning signals for safeguarding the financial institutions as well as the system from liquidity stresses arising from other financial institutions and the interbank market, by applying techniques from network economics. The ultimate goal of this matrix is to focus on the liquidity management of the whole banking sector. Thus, this matrix will help Bangladesh Bank to focus its liquidity monitoring attention on both the individual financial institutions and the system as a whole towards establishing a more stable and resilient financial system in Bangladesh.

[69] Financial Stability Department (FSD) Circular No. 02/2013.

10.4 Membership of Egmont Group

The Bangladesh Financial Intelligence Unit (BFIU) of Bangladesh Bank recently achieved membership in the Egmont Group[70]. In the general annual meeting of the Egmont Group, held in Sun City, South Africa in 2013, it was decided to incorporate Bangladesh as its member. This membership will help the country to be better informed in the field of money laundering and financing in terrorist activities and incorporating an improved regulatory framework with a view to safeguard financial sector against this malice. This incorporation will also help Bangladesh to exchange information among the 139 member countries regarding financial transactions related to money laundering and terrorist financing issues. As a member of this prestigious group, Bangladesh will be better able to prevent its financial institutions from becoming involved in activities either of money laundering or terrorist financing, the major occurrence of which may erode the stability of financial system.

10.5 Business process outsourcing service

Bangladesh has the potential to become one of the major players in the outsourcing industry. However, the company or individual involved in outsourcing services is facing problems in inward remittance or to remit any cost involved in bidding for any project. Earlier, individuals or companies could remit a maximum of USD 500 through *Online Payment Gateway Service Provider (OPGSP),* an amount which has been increased to USD 2000. Bangladesh Bank relaxed the regulations and issued necessary directives to authorized dealers to ease the transfer the income in foreign currency against service for export along with other non-agency service. Relaxation in foreign exchange policies are expected to encourage the stakeholders to carry out their transactions through legal channels and discourage them from using any of the informal channels, e.g., hundi. Thus, indeed, under this regime financial stability would be better ensured with a strong, formal payment system.

10.6 CAMELS Guideline for NBFIs in Bangladesh

Non-Bank Financial Institutions (NBFIs) in Bangladesh have emerged as an increasingly important segment of the financial system, due to rapidly rising demand for long term financing and equity providing services, as well as enhanced financial intermediation with diversified investment instruments and risk-pooling services.

[70] It is an international organization comprise of financial intelligence unit of one hundred thirty nine countries.

Though NBFIs' business lines are narrow in comparison with the banks', NBFIs are working nowadays as multi-product financial institutions. Performance of this sector has been evaluated through the CAMELS rating which involves analysis and evaluation of the six crucial dimensions of NBFIs' operations. The six indicators used in the rating system are (i) capital adequacy, (ii) asset quality, (iii) management efficiency, (iv) earnings, (v) liquidity, and (vi) sensitivity to market risk. It indicates an overall status of financial health of an NBFI. The CAMEL rating was introduced in 2010, while its revised version, CAMELS, was in effect from the end of 2012. This rating provides the regulator a quick glimpse of the financial sector and helps identify if there is any kind of weakness originating in the system. Moreover, the CAMELS rating assist in the allocation of supervisory resources towards institutions those are operating at a higher risk of failure and particularly risky areas within individual institutions.

10.7 Framing Green Banking Guidelines by NBFIs

Environmentally-friendly 'green banking' is a key component in bringing long-term financial stability to the financial system, which, in turn, will ensure sustainable economic growth. This initiative addresses system-wide environmental risk. Bangladesh Bank (BB) has already introduced green banking guidelines for the banking sector and with a view to bringing the NBFIs under the umbrella of Green Banking, BB has asked all NBFIs to frame their green banking policies by June 2014. BB then is giving the NBFIs a two-year timeframe to formulate and implement their own guidelines in three phases to ensure formal involvement of financial institutions in managing risks of environmental degradation. Phase one include policy formulation and governance, incorporation of environmental risk in credit risk methodology, initiating in-house environmental management, introducing green finance, creating a climate risk fund, introducing green marketing, supporting employee training, promoting consumer awareness, and conducting green events. Under the second phase, by December 2014 the NBFIs will have to develop sector-specific environmental policies and green strategic planning together with setting up green branches and improving in-house environmental management. At the third and the final stage, the NBFIs are expected to address the whole eco-system through environment-friendly initiatives and introducing innovative products to be implemented by June 2015. The NBFIs are reporting their progress in green banking initiatives to Bangladesh Bank on a quarterly basis, starting from September 30, 2013.

10.8 Risk Management Framework for NBFIs

A proactive Risk Management System, for ensuring a sound financial system, is getting more emphasis day by day. In order to manage all the risks in a prudent and

organized way, the NBFIs operating in Bangladesh have been advised to follow several instructions, circulated through DFIM Circular-01 dated 7 April 2013. With a view to manage their external and internal risks in a prudent and organized manner, all the NBFIs have formed a separate Risk Management Forum (RMF) and Risk Analyst Unit (RAU) in 2013 as advised by Bangladesh Bank.

A RMF is designed to capture the overall risk management strategies and prepare risk management policies and procedures for an individual institution. RMF is headed by the chief risk officer (CRO) and composed of the heads of the credit, treasury and other related divisions. The forum conducts stress testing and observes the use of models to measure and monitor the risks. It oversees the capital management functions in accordance with the risk-based capital adequacy measurement in line with BASEL-II and III. The RMF highlights the risky portfolios and deficiencies of the NBFIs in a timely manner and RAU prepares a Risk Management Paper (RMP) with a detailed analysis of trends of all categories of risks with an adequate updated monthly data. The RAU is responsible for preparing a report containing analyses and submitting the same to the managing director and the board of directors with their specific recommendations and suggestions. This report is also supposed to be submitted to Bangladesh Bank by the end of each month.

10.9 Guidelines on Products and Services of NBFIs

An integrated products and services management system can strengthen the role of FIs in developing, redesigning, offering and marketing of existing as well as new financial products and services in more prudent way. At the same time, an efficient management system can enhance clientele protection by ensuring the availability of information, proper understanding, and regular feedback. As a part of a regulatory review, 'Guidelines on products and services of FIs in Bangladesh' was prepared and issued (Circular no. 05/2013).

These guidelines aim to formulate a general framework for different products and services of NBFIs with a view to removing inconsistencies and discrepancies among the features and operational procedures of those products and services. It will help in promoting sound risk management practices in managing and controlling risks associated with products/services at various stages.

10.10 Base Rate, a new monitoring system for NBFIs

Bangladesh Bank introduced a base rate monitoring system for non-bank financial institutions (NBFIs) in November 2013 to ensure a reasonable interest rate of their different products to the clients. Base rate can be described as the minimum interest rate below which it is not viable for an NBFI to lend money to the clients. The base

rate of the NBFIs will be set by counting their cost of funds, cost of CRR and SLR, cost of administration, and cost of their equity capital. The introduction of base rate will promote transparency in setting the interest rate for different products; the interest of clients will be protected and healthy competition in the economy will be encouraged.

The main component of the base rate system is the cost of funds index, which is uploaded on BB's web site. The NBFIs will be able to set their floating interest rate easily as they will use the cost of funds as a reference rate. The unified base rate system will create a level-playing field to all quarters. The interest rate-setting mechanism in the base rate system, however, will not be applicable for farm loans, loans linked to different refinance schemes, staff incentive loans, and loans against fixed deposits because these pools of loans are disbursed at a subsidized rate. The NBFIs are required to review the base rate on a monthly basis with the approval of their respective boards or asset-liability management committees as per the NBFI's practice. Since transparency in the interest rate of lending products has been a key objective, the NBFIs are required to exhibit the information on their base rate at all the branches and also on their web sites, and also conveyed to the general public from time to time through appropriate channels. Consolidating the monthly data of the NBFIs, the BB will prepare and publish a monthly cost of fund index on its web site which will ultimately serve as the reference rate for setting variable interest rates for their different loan products. This base rate guideline has come into force from January 1, 2014.

10.11 Financial Inclusion: school banking and mobile banking

Financial inclusion and financial stability are two important dimensions of the economic issues which have shaped the tone and tenor of financial sector policy space globally over the last decade or so. Though there is tremendous growth in the banking sector relating to financial, profitability and viability, the *glass remains half-full* because banks have not been yet able to include all segments of the population, especially the underprivileged sections of the society. Put differently, the pursuit of financial inclusion and the pursuit of financial stability are no longer competing policy options, but rather complementary policy compulsions.

10.11.1 School banking to build the habit of savings among the youngsters

Bangladesh Bank (BB) introduced the 'school banking' program for financial inclusion in November, 2010 and issued a guideline in 2013 to provide students with necessary banking services by ensuring more transparent, encouraging and dynamic

institutional financial supports to them under the school banking program. This financial net covers students as young as six years but not more than 18 years with an initial deposit of BDT 100 operated by their parents or legal guardians. The number of such accounts stands at 224,719 at the end of June 2013 while the balance therein was BDT 1.28 billion. This initiative will have a long-term positive effect as it will help to build the habit of stable savings among the youngsters as well as use of formal banking channels for day-to-day transactions. Both of these habits will be beneficial in keeping stability in the financial system.

10.11.2 Mobile banking facilitates financial inclusion

Bangladesh has been gradually moving towards branchless banking, referred to as 'mobile financial services (MFS), which since 2011 has been providing easy access to formal financial services.

Access to affordable financial services will lead to increasing economic activities and employment opportunities for rural households/underprivileged segments of the population, with a possible multiplier effect on the economy. It could enable people to have a higher disposable income which in turn leads to greater savings and a wider deposit base for the banks and other financial institutions. Financial inclusion helps bank to provide a more stable retail base of deposits. Stable retail sources of funding, as against reliance on borrowed funds, can greatly enhance the soundness and resilience of banking sector and can reduce volatility in earnings. Low income savers and borrowers tend to maintain steady financial behaviour through the business cycle both in terms of deposit keeping and borrowing. Thus, during periods of systemic crises, deposits from low income clients typically act as a continued source of funds even as other sources of credit dry up or become difficult to roll over. Small depositors, therefore, provide big opportunities to garner stable deposits. In the absence of such deposits, banks may find it difficult to continue lending. Financial inclusion can contribute to enhanced financial stability through contributing to the improved health of the household sector, of small businesses and, to some extent, that of the corporate sector. Financial inclusion is the key to inclusive growth with the goal of empowerment of poor, underprivileged and low income/skilled rural/urban households. Because of this initiative, the pace of financial inclusion increases in a dramatic way and people tend to carry on their transactions through safer formal channels, rather than questionable informal ones.

10.12 Good governance in banks

Bangladesh Bank (BB) has taken a move to ensure good governance in the country's banking sector through updating requirements concerning the responsibilities and formation of banks' boards of directors. BB issued three circulars in this connection in October 2013 asking chairmen and chief executive officers (CEOs) of all the banks to comply with the existing rules and regulations in line with the Bank Company Act (Amended) 2013, with a view to protecting the interest of depositors through establishing good governance in the banking sector. Under the latest moves, the banks have been asked to form risk management committees, along with the existing executive and audit committees, in part to reduce the risk of fraud and forgeries in the banking sector. BB has specified the terms of reference and responsibilities of the committees to ensure accountability and transparency of the banks' management. In this regard, the banking sector has to take prior approval from BB for appointment of new directors of the banks, with the exception of specialized banks.

10.13 Bank Company Act (Amended) 2013

On 14 July 2013, Parliament passed the Bank Company (Amendment) Act, 2013 to enhance Bangladesh Bank's regulatory powers with a view to help improving governance and strengthen discipline in the banking system. This new legislation gives Bangladesh Bank the authority to remove top executives of state-owned banks. A bank director can henceforth hold the position for a maximum of two successive 3-year terms and may return to the position after a gap of at least one term. A director cannot hold the same position in more than one financial company at the same time.

The amendments ensure that banks are allowed to invest in the capital market not more than 25% of their regulatory capital, as defined in the Basel II document, replacing the earlier allowable limit of 10% of total demand and time liabilities.

Besides, some other issues are also covered in the BCA, 1991 regarding acquisition/liquidation/winding up of a bank company and the treatment of uninsured depositors and other receivership creditors.

- The BCA, 1991 (amended in 2013) includes the procedure of acquisition by Government; according to the Act, Government may acquire any bank, or its branch (one or more) or its subsidiary, upon consultation with Bangladesh Bank and having a report from BB to protect public interest, depositors' interest, interest of banking principles and many other things as described in section 58 of BCA, 1991.
- Bank companies can be liquidated by the High Court itself or when BB applies to the registrar of the Supreme Court for liquidation to protect the public interest, the depositors' interest and financial stability (Section 65).
- Government, with consultation of BB, can attach a 'court liquidator' with the high court division, to operate the liquidation activities and/or to comply with high court orders regarding liquidation. He will be known as the 'Government liquidator' for the bank company (Section 66). If BB nominates the 'Government liquidator', generally the High Court appoints him as 'Government liquidator' (Section 67).
- The insured depositors, uninsured depositors and other receivership creditors' claim will be settled following the hierarchy: Insured depositors' claim, as per DIA, 2000; priority of claims as per section 325 of CA, 1994; secured creditors' claim; uninsured depositors' claim, i.e. beyond coverage of insured deposits; and finally all other general creditors and the adjustment with Deposit Insurance Trust Fund. To protect the interest of the public, or members of the bank company, depositors and other creditors, or to ensure the continuation of banking business; Bangladesh Bank can reduce the interest or claims of those members, depositors and creditors. (Section 77)

10.14 New software to check fraud in banking sector

Bangladesh Bank (BB) has introduced the Integrated Supervision System (ISS) through launching software in October 2013, aiming to facilitate quicker financial analysis of all aspects of banking activity, but especially to lower the risk of fraud and forgery in the country's banking sector. The ISS is a web-based monitoring tool which will integrate the existing multi-fold supervision mechanism of the central bank. The new system will help improve the quality of the monitoring and supervision. BB has taken a series of regulatory initiatives including installation of the software, initially to check fraud and forgery in the country's banking sector, but over time, to expand the staff's analytical capabilities through automated generation of a prioritized, risk-focused series of indicators for trend analysis and peer group comparisons. The banks will be penalized if they fail to provide accurate data on time to Bangladesh Bank. Under this

system, BB will collect financial statements on a monthly basis from all bank branches across the country. Using the software BB will integrate information of banks' overall activities including balance sheet exposure, off-balance sheet exposure, credit operations, foreign exchange business, money market operations and regulatory compliance.

10.15 Digital Map of Financial Services

A Digital Map of Financial Services in Bangladesh was launched in 2013 as the archetype in the country. With a view to assess the spatial distribution of bank branches. ATMs, agents and other financial access points, it is possible to generate analysis that can be of great operational value to the commercial sector, the public sector, and for guiding regulatory policy through using the geographic information systems (GIS) analysis. This financial mapping tool is used by both Bangladesh Bank (BB) and Microcredit Regulatory Authority (MRA) in making sound regulatory policy decisions. For example, giving permission of balanced bank branches, ATMs, agents and other points of service in certain geographical areas of the country for promoting financial inclusion, such as SME and agricultural credit, to the underserved areas. This tool can be used in assessing the underprivileged sector of the society and their financial access, safety net programs and money-transfers. The mapping can also be used by formal financial services providers in liquidity management. Other initiatives include e-commerce, such as modernization of the payments system and financial sector IT infrastructure such as online clearing and settlement of interbank paper-based and electronic fund transfers, the online credit information bureau, and the National Payments Switch (NPS). These innovations can complement the new ISS (described above).

10.16 Stock Exchange Demutualization in Bangladesh

The Bangladesh Securities and Exchange Commission (BSEC) approved the Memorandum of Association and Article of Association of Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) and accordingly both exchanges became Demutualized Exchanges on 21 November 2013. Earlier the Exchanges Demutualization Act, 2013 was passed at the National Parliament for the purpose of ensuring corporate governance as well as to segregate the trading rights from the ownership and management of the Exchanges. The BSEC set the board size of the bourses at 13 members, of which four would be from member-brokers, seven independents, one from strategic investors, and the chief executive officer (CEO) of the Exchange.

According to the schemes, the bourses will submit to the BSEC a list of 14 persons for independent directorships, and then the regulator will pick seven from the list. If the strategic investors are not found, the post of directorship from the investors will be filled with another independent director. The strategic partner of the DSE can be any local and foreign company which will buy into some of the stakes of the bourse.

A maximum of two strategic investors could be included in the board which will reduce the number of member-brokers' representatives in the board to three. The tenure of the independent directors of the DSE and CSE will be three years. The bourse would be allowed to form four to six sub-committees for different purposes. The previous boards were dissolved after getting registered with the Registrar of Joint Stock Companies (RJSC). It was decided that the member-brokers of the DSE and the CSE have to transfer 60 percent of their allocated shares to a block account, while the rest 40 percent will belong to the member-brokers according to the rules of demutualization.

By demutualization, a stock exchange's mutual ownership structure is changed to a share ownership structure, therefore segregating ownership, management and functionality. Now a demutualised exchange can freely trade on the market like any other public limited company, increasing its accountability to not only the securities industry, but to the investing community generally. This initiative will ensure operational transparency in two bourses of the country and will be key to restoring public trust in the financial sector, especially the equity market.

10.17 Strengthening the monitoring of banks with MoUs

Strengthening the monitoring and supervision strategies on four state-owned commercial banks (SCBs)[71] in order to improve their financial health, Bangladesh Bank (BB) revised and signed fresh memorandum of understandings (MoUs) in 2013. Moreover, a fresh MoU was signed with a government owned specialized bank[72] to improve its governance in 2013.

[71] The Sonali Bank Ltd., the Janata Bank Ltd., the Agrani Bank ltd. and the Rupali Bank Ltd.

[72] The Basic Bank Ltd.

In the late nineties, it is noteworthy, the key financial indicators of the then NCBs (Nationalized Commercial Banks) were observed to have deteriorated, and the market share of the NCBs in the banking sector was dropping significantly. Poor governance was an impediment that both contributed to and deepened the crises in these banks. The MoUs (Memorandum of Understandings) were first introduced and signed with them in the year 2003 to monitor the activities of the SCBs more closely and intensively. With a view to ensuring good corporate governance, the MOUs were revised in 2013, incorporating many qualitative changes. As per these revised MoUs, the SCBs have formulated several revised policies, approved by their respective Board of Directors (BoD), including credit policy and credit risk management policy, internal control and compliance policy, loan review policy, and liquidity management policy. The SCBs were instructed to implement the policies meticulously in their day-to-day operation of banking.

Appendices

Table I : Banking Sector Aggregate Balance Sheet

Particulars	Amount in billion BDT				Change(%)	
	2010	2011	2012	2013	2011 to 2012	2012 to 2013
Property & Assets						
Cash in Hand (including FC)	52.0	59.7	81.1	102.7	35.8%	26.7%
Balance with BB & SB (including FC)	300.6	399.5	450.8	479.3	12.8%	6.3%
Balance with other Banks & FIs	146.6	155.9	244.7	347.9	57.0%	42.2%
Money at Call & Short Notice	43.9	128.1	66.8	46.5	-47.8%	-30.4%
Investments						
Government	490.8	662.1	607.6[R]	841.2	-8.2%[R]	38.5%
Others	98.5	131.3	505.9[R]	730.0	285.3%[R]	44.3%
Total Investment	589.3	793.4	1,113.5[R]	1,571.2	40.3%[R]	41.1%
Loans & Advances						
Loans, CC, OD etc.	2,973.4	3,525.1	4,098.4	4,443.5	16.3%	8.4%
Bills purchased & Disct.	225.3	267.5	288.2	276.6	7.7%	-4.0%
Total Loans & Advances	3,198.6	37,92.5	4,386.7	4,720.1	15.7%	7.6%
Fixed Assets	101.7	143.7	162.1	198.2	12.8%	22.3%
Other Assets	421.1	4011	488.1	532.5	21.7%	9.1%
Non-banking Assets	1.1	1.2	36.9	1.7	2978.9%	-95.4%
Total Assets	4,854.9	5,874.9	7,030.7	8,000.2	19.7%	13.8%
Liabilities:						
Borrowings from other Banks/FIs/Agents	159.8	226.3	316.0	221.6	39.6%	-29.9%
Deposits & Other Accounts						
Current Deposit	712.7	992.9	989.6	1,091.0	-0.3%	10.3%
Savings Deposit	852.4	933.7	972.6	1,047.7	4.2%	7.7%
Fixed/Term Deposit	2,156.7	2,583.2	2,985.6	3,622.3	15.6%	21.3%
Other Deposits	-	-	474.4	533.3	-	12.4%
Total Deposit	3,721.8	4,509.8	5,422.2	6,294.3	20.2%	16.1%
Bills Payable	59.8	65.3	76.0	68.9	16.3%	-9.3%
Other Liabilities	494.8	546.4	640.6	737.2	17.2%	15.1%
Total Liabilities	4,436.2	5,347.8	6,454.7	7,321.9	20.7%	13.4%
Capital/Shareholder's Equity	418.7	527.1	575.9	678.3	9.3%	17.8%
Total Liabilities & Shareholder's Equity	4,854.9	5,874.9	7,030.7	8,000.2	19.7%	13.8%
Off-balance Sheet Items	1,985.8	1,814.6	1,871.3	2,153.1	3.1%	15.1%

*R = revised figures

Table II : Banking Sector Aggregate Share of Assets

(Amount in billion BDT)

Particulars	2011	% of Total Assets	2012	% of Total Assets	2013	% of Total Assets
Property & Assets						
Cash in Hand (including FC)	59.7	1.0%	81.1	1.2%	102.7	1.3%
Balance with BB & SB (including FC)	399.5	6.8%	450.8	6.4%	479.3	6.0%
Balance with other Banks & FIs	155.9	2.6%	244.7	3.5%	347.9	4.3%
Money at Call & Short Notice	128.1	2.2%	66.8	1.0%	46.5	0.6%
Investments						
Government	662.1	11.3%	607.6[R]	8.6%[R]	841.2	10.5%
Others	131.3	2.2%	505.9[R]	7.2%[R]	730.0	9.1%
Total Investments	793.4	13.5%	1,113.5[R]	15.8%[R]	1,571.2	19.6%
Loans & Advances						
Loans, CC, OD etc.	3,525.1	60.0%	4,098.4	58.3%	4,443.5	55.5%
Bills purchased & Discounted	267.5	4.6%	288.2	4.1%	276.6	3.5%
Total Loans and advance	3,792.5	64.6%	4,386.7	62.4%	4,720.1	59.0%
Fixed Assets	143.7	2.5%	162.1	2.3%	198.2	2.5%
Other Assets	401.1	6.8%	488.1	6.9%	532.5	6.7%
Non-banking Assets	1.2	0.0%	36.9	0.5%	1.7	0.0%
Total Assets	5,874.9	100.0%	7,030.7	100.0%	8,000.2	100.0%

*R = revised figures

Table III : Banking Sector Aggregate Share of Liabilities*

(Amount in billion BDT)

Particulars	2011	% of Total Liabilities	2012	% of Total Liabilities	2013	% of Total Liabilities
Liabilities						
Borrowings from other Banks/FIs/Agents	226.3	4.2%	316.0	4.9%	221.6	3.0%
Deposits & Other Accounts						
Current Deposit	992.9	18.6%	989.6	15.3%	1091.0	14.9%
Savings Deposit	933.7	17.5%	972.6	15.1%	1047.7	14.3%
Fixed/Term Deposit	2,583.2	48.3%	2,985.6	46.3%	3,622.3	49.5%
Other Deposits	-	-	474.4	7.4%	533.3	7.3%
Total Deposit	4,509.8	84.3%	5,422.2	84.0%	6,294.3	86.0%
Bills Payable	65.2	1.2%	76.0	1.2%	68.9	0.9%
Other Liabilities	546.4	10.2%	640.6	9.9%	737.2	10.1%
Total Liabilities	5,346.8	100.0%	6,454.7	100.0%	7,321.9	100.0%

**(Some of the previous figures are restated by recalculating them as percentage of total liabilities only instead of total liabilities and shareholder's equity)*

Table IV : Banking Sector Aggregate Income Statement

Particulars	Amount in billion BDT				Change (%)	
	2010	2011	2012	2013	2011 to 2012	2012 to 2013
Interest Income	321.7	442.8	572.1	618.9	29.2%	8.2%
Less: Interest Expense	200.2	297.5	418.3	486.6	40.6%	16.3%
Net Interest Income	121.5	145.3	153.8	132.3	5.9%	-14.0%
Non-Interest/Investment Income	164.8	168.5	186.4	219.8	10.6%	17.9%
Total Income	286.4	313.8	340.2	352.1	8.4%	3.5 %
Operating Expenses	115.5	127.0	142.9	166.0	12.6%	16.1%
Profit before Provision	170.9	186.8	197.3	186.1	5.6%	-5.7%
Total Provision	35.6	44.7	86.4	46.1	93.4%	-46.6%
Profit before Taxes	135.3	142.1	110.8	140.0	-22.0%	26.3%
Provision for Taxation	52.0	66.9	66.2	67.4	-1.1%	1.9%
Profit after Taxation/Net Profit	83.3	75.2	44.7	72.5	-40.6%	62.5 %

Table V : Banking Sector Assets, Deposits & NPL Concentration (CY13)

Assets	Top 5 Banks	Other Banks	Top 10 Banks	Other Banks
Amount(in Billion BDT)	2,687.9	5,312.3	3,829.2	4,171.0
Share (%)	33.6%	66.4%	47.9%	52.1%
Deposit	Top 5 banks	Other banks	Top 10 banks	Other banks
Amount(in Billion BDT)	2,153.2	4,141.1	3,053.6	3,240.6
Share (%)	34.2%	65.8%	48.5%	51.5%
NPL	Top 5 banks	Other banks	Top 10 banks	Other banks
Amount(in Billion BDT)	221.1	184.8	273.4	132.5
Share (%)	54.5%	45.5%	67.4%	32.6%

Table VI : Banking Sector Year-wise Loan Loss Provisions

(Amount in billion BDT)

Year	Required Provision	Provision Maintained	Surplus/(Shortfall)
2005	88.3	42.5	-45.8
2006	106.1	52.9	-53.1
2007	127.1	97.0	-30.1
2008	136.1	126.2	-9.9
2009	134.7	137.8	3.1
2010	150.8	146.8	-3.9
2011	139.3	148.9	9.6
2012	242.4	189.8	-52.6
2013	252.4	249.8	-2.6

Table VII : Banking Sector Year-wise Classified Loans Ratios

(Figure in Percentage)

Year	Classified Loans to Total Loans	Sub-Standard Loans to Classified Loans	Doubtful Loans to Classified Loans	Bad Loans to Classified Loans
2001	31.5	5.6	5.9	88.5
2002	28.1	8.7	5.3	86.1
2003	22.1	10.2	8.8	80.9
2004	17.6	7.2	6.6	86.2
2005	13.6	8.7	6.9	84.4
2006	13.2	13.1	7.2	79.7
2007	13.2	9.8	7.5	82.7
2008	10.8	9.4	9.4	81.1
2009	9.2	12.2	8.4	79.4
2010	7.1	13.4	8.4	78.1
2011	6.2	14.8	11.5	73.8
2012	10.0	19.1	14.2	66.7
2013	8.9	11.2	10.1	78.7

Table VIII : Classified Loan Composition (CY13)

(Amount in billion BDT)

Particulars	Amount	% of Total NPL
Sub-Standard	45.4	11.2%
Doubtful	41.2	10.1%
Bad & Loss	319.2	78.7%
Total	405.8	100.0%

Table IX : Banking Sector Deposits Breakdown (CY13)

(Amount in billion BDT)

Items	Amount	%of Total Deposit
Current deposits	1,091.0	17.3%
Savings deposits	1,047.7	16.6%
Term deposits	3,622.3	57.5%
Other Deposits	533.3	8.5%
Total deposit	6,294.3	100.0%

Table X : Banking Sector Call Money Investment & Borrowing

(Amount in billion BDT)

Items	CY11	CY12	% of Change	CY13	% of Change
Borrowings	226.2	316.0	39.7%	221.6	-29.9%
Call money	128.1	66.8	-47.8%	46.5	-30.4%

Table XI : Banking Sector Selected Ratios

(Figure in Percentage)

Ratio	CY09	CY10	CY11	CY12	CY13
ROA	1.4	1.7	1.3	0.6	0.9
ROE	19.9	19.9	14.3	7.8	10.7
Net Interest Margin	2.6	3.1	3.0	2.8	2.1
Asset Turnover	4.2	5.9	5.3	4.8	4.4
Interest Income to Total Assets	6.9	6.6	7.5	8.1	7.7
Net-Interest Income to Total Assets	2.2	2.5	2.5	2.2	1.7
Non-Interest Income to Total Assets	3.0	3.4	2.9	2.7	2.7
Non-interest expense to Total Income	42.7	40.3	40.5	42.0	47.1
Capital Adequacy Ratio	11.7	9.3	11.3	10.5	11.5
Classified Loans to Total Loans	9.2	7.1	6.2	10.0	8.9
Classified Loans to Capital	79.7	54.8	43.6	74.2	59.8
Provision to Classified Loans	61.3	65.1	63.8	44.4	61.6

Table XII : Banking Sector ROA & ROE (CY13)

ROA(%)	Number of Banks	ROE(%)	Number of Banks
Up to 2.0%	50	Up to 5.0%	22
> 2.0% to 3.0%	3	> 5.0% to 10.0%	14
> 3.0% to 4.0%	2	> 10.0% to 15.0%	15
> 4.0%	1	> 15.0%	5

Table XIII : Banking Sector Year-wise ADR

(Amount in billion BDT)

Year	Deposits (Excluding Inter -Bank)	Advance (Excluding Inter -Bank)	Advance-Deposit Ratio
2006	1,829.3	1,394.6	76.2%
2007	2,116.1	1,600.2	75.6%
2008	2,527.6	1,963.9	77.7%
2009	3,042.8	2,334.8	76.7%
2010	3,689.2	2,958.8	80.2%
2011	4,509.8	3,792.5	84.1%
2012	5396.0	4318.7	80.0%
2013	6,363.5	4,529.3	71.2%

Table XIV : Banking Sector ADR in CY13	
Range	Number of Banks
Up to 80.0%	40
> 80.0% to 90.0%	13
> 90.0% to 100.0%	2
> 100.0% to 110.0%	1
> 110.0%	0
Total	56

Table XV : Banking Sector Month-wise Deposit & Advance Rate			
Month	Deposit Rate	Advance Rate	Spread
13-Jan	8.60	13.73	5.13
13-Feb	8.68	13.73	5.05
13-Mar	8.67	13.73	5.06
13-Apr	8.65	13.64	4.99
13-May	8.65	13.63	4.98
13-Jun	8.54	13.67	5.13
13-Jul	8.61	13.63	5.02
13-Aug	8.55	13.56	5.01
13-Sep	8.50	13.51	5.01
13-Oct	8.47	13.42	4.95
13-Nov	8.45	13.42	4.97
13-Dec	8.39	13.45	5.06

Table XVI : Islamic Banks Aggregate Balance Sheet

Particulars	Amount in billion BDT				Change(%) 2011 to 12	Change(%) 2012 to 13
	2010	2011	2012	2013		
Property & Assets						
Cash in Hand (including FC)	7.3	9.3	12.2	15.6	31.6%	27.1%
Balance with BB & SB (including FC)	64.1	77.3	104.0	102.3	34.6%	-1.7%
Balance with other Banks & FIs	13.4	33.2	80.6[R]	80.2	142.8 %[R]	-0.6%
Money at Call & Short Notice	19.4	24.8	0.0	0.0	0.0%	-
Investments						
Government	21.2	26.9	41.4[R]	17.3	53.8 %[R]	-58.2%
Others	6.6	15.9	18.6 [R]	87.7	16.8 %[R]	372.1%
Total Investments	27.8	42.7	60.0 [R]	105.0	40.4 %[R]	75.1%
Investments & Advances						
Investments & Advances	527.8	644.9	801.6	899.7	24.3 %	12.3%
Bills Purchased & Discounted	46.3	52.3	69.7	75.5	33.3 %	8.4%
Total Investments & Advances	574.1	697.2	871.3	975.3	25.0 %	11.9%
Fixed Assets	12.1	14.3	18.7	30.7	31.0 %	63.8%
Other Assets	15.4	24.3	34.7 [R]	50.1	42.9 %[R]	44.2%
Non-banking Assets	0	0	0.0	0.0	0.0%	19.1%
Total Assets	733.6	923.2	1,181.5 [R]	1,359.0	28.0 %[R]	15.0%
Liabilities						
Borrowings from other Banks/FIs/Agents	21.4	31.1	38.3 [R]	29.6	23.0 %[R]	-22.6%
Deposits & Other Accounts						
Current Deposit	86.8	241.1	105.0 [R]	76.5	-56.5 %[R]	-27.1%
Savings Deposit	136.4	181.9	184.9 [R]	190.6	1.7 %[R]	3.1%
Fixed/Term Deposit	387.1	346.1	479.6 [R]	718.1	38.6 %[R]	49.7%
Other Deposit	-	-	214.7 [R]	148.5	-	-30.8%
Total Deposits	617.1	776.1	995.6 [R]	1,133.6	28.3 %[R]	13.9%
Bills Payable	6.8	7.0	11.3	9.3	62.1 %[R]	-18.0%
Other Liabilities	40.4	49.9	68.4 [R]	83.6	37.1 %[R]	22.3%
Total Liabilities	678.9	857.1	1,102.2 [R]	1,256.2	28.6 %[R]	14.0%
Capital/Shareholder's Equity	54.7	66.1	79.3 [R]	102.8	20.0 %[R]	29.7%
Total Liabilities & Shareholder's Equity	733.6	923.2	1,181.5 [R]	1,359.0	28.0 %[R]	15.0%
Off-balance Sheet Items	241.1	255.8	280.7 [R]	289.1	9.7 %[R]	3.0%

*R = revised figures

Table XVII : Islamic Banks Aggregate Income Statement

Particulars	Amount in billion BDT				Change (%) 2011 to 2012	Change (%) 2012 to 2013
	2010	2011	2012	2013		
Profit Income	55.07	80.7	115.9[R]	132.98	43.6%[R]	14.8%
Less: Profit Expenses	35.12	52.2	77.1	94.47	47.8%	22.5%
Net Profit Income	19.95	28.5	38.7 [R]	38.51	35.9 %[R]	-0.5%
Non-Profit/Investment Income	17.94	15.1	16.6 [R]	17.67	10.2 %[R]	6.2%
Total Income	37.89	43.6	55.4 [R]	56.19	27.0 %[R]	1.5%
Operating Expenses	13.04	15.9	20.1 [R]	24.77	26.6 %[R]	23.0%
Profit before Provision	24.85	27.7	35.2 [R]	31.42	27.2 %[R]	-10.8%
Total Provision	6.32	6.9	8.1 [R]	7.55	17.4 %[R]	-6.8%
Profit before Taxes	18.53	20.8	27.1 [R]	23.87	30.4 %[R]	-12.0%
Provision for Taxation	6.86	11.1	13.8 [R]	11.82	24.2 %[R]	-14.3%
Profit after Taxation/Net Profit	11.66	9.7	13.3 [R]	12.05	37.5 %[R]	-9.7%

*R = revised figures

Table XVIII : Share of Islamic Banks in the Banking Sector (CY13)

(Amount in billion BDT)

Particulars	All Banks	Islamic Banks	Conventional Banks	Share of Islamic Banks	Share of Conventional Banks
Property & Assets					
Cash in Hand	102.7	15.6	87.2	15.1	84.9
Due from BB & other Banks/FIs	873.8	182.4	691.4	20.9	79.1
Investments in Securities	1,571.2	105.0	1,466.3	6.7	93.3
Investments (Loans & Advances)	4,720.1	975.3	3,744.8	20.7	79.3
Other Assets including Fixed Assets	732.4	80.8	651.6	11.0	89.0
Total Assets	8,000.2	1359.0	6,641.2	17.0	83.0
Liabilities					
Due to Financial Institutions	221.6	38.3	183.3	17.3	82.7
Total Deposits	6,294.3	1133.6	5,160.7	18.0	82.0
Bills Payable	68.9	9.3			
Other Liabilities	737.2	83.6	653.5	11.3	88.7
Total Liabilities	7,321.9	1,256.2	6,065.7	17.2	82.8
Capital/Shareholder's Equity	678.3	102.8	575.5	15.2	84.8
Total Liabilities & Shareholder's Equity	8,000.2	1,359.0	6,641.2	17.0	83.0
Off-balance Sheet Items	2,153.1	289.1	1,864.0	13.4	86.6

Table XIX : Selected Ratios of Islamic Banks and the Banking Sector (CY13)

Ratio	Overall Banking Sector	Islamic Banking Sector
ROA	0.90	0.89
ROE	10.70	11.71
Net Profit Margin	2.10	3.32
Profit (Interest) Income to Total Assets	7.74	9.79
Net-profit (Interest) Income to Total Assets	1.65	2.83
Non-Profit (Interest) Income to Total Assets	2.75	1.30
Investment (Credit)-Deposit Ratio	71.18	84.13
Capital Adequacy Ratio	11.50	12.07
Classified Investment (Credits) to Investments	8.90	4.20
Classified Investment (Credits) to Capital	59.80	39.88

**Data ICB Islami Bank Ltd. is excluded for Islamic Banking Sector

Table XX : Islamic Banks' Capital Adequacy Ratio (CY13)

CAR	Number of Islamic Banks
Below 10.0%	1
10.0% to 11.0%	1
11.0% to 13.0%	2
> 13.0%	4
Total	8

Table XXI : Islamic Banking Sector Investment-Deposit Ratio (as of 31.12.2013)

(Amount in billion BDT)

Items	Islamic Banks	Islamic Branches/Windows	Islamic Banking Sector
Deposits (Excluding Interbank)	1,117.3	61.1	1,178.9
Credits (Excluding Interbank)	951.3	52.5	1,003.7
IDR%	85.1%	85.9%	85.1%

Table XXII : Stressed Advances Ratio in Different Segments

(Amount in billion BDT)

Sl No.	Segments	Year 2013				GNPL to Total Advances (1)	Rescheduled Loans to Total Advances (2)	Stressed Advances Ratio (3) = (1)+(2)
		Standard Advances	GNPL	Rescheduled	Total Advances			
01	Micro & Small	460.3	49.6	21.7	519.2	9.5%	4.2%	13.7%
02	Medium & Large	2,751.7	242.2	157.1	3,038.2	7.9%	5.1%	13.0%
03	Retail & Others	827.5	117.2	21.7	1,043.5	11.2%	2.1%	13.3%
	Total	4,039.5	409.0	200.5	4,601.1	8.8%	4.7%	13.5%

Table XXIII : Overseas Branches Aggregate Share of Assets & Liabilities

(Amount in million USD)

Assets	2013	% of Total Assets	Liabilities	2013	% of Total Liabilities
Cash & Balance from Central Banks	3.4	16.8%	Customer Deposits	14.8	96.0%
Balance with other Banks & FIs	11.2	58.7%	Dues to head office & branches abroad & other liabilities	0.6	4.0%
Loans & Advances	3.9	20.6%	Total Liabilities	15.4	100.0%
Property & Equipments and other Assets	0.7	3.9%	Capital/Equity	3.8	24.7%
Total Assets	19.2	100.0%	Total Liabilities & Equities	19.2	-

Table XXIV : Stressed Assets in Banking Sector

(In Percentage)

Year	Gross NPA to Gross Advances	Restructured Advances to Gross Advances	Stressed Advances
2012	10.0	3.7	13.7
2013	8.7	4.8	13.5

Table XXV : Stressed Concentration in Banking Sector				
Stressed Assets	Worst 5 Banks	Other Banks	Worst 10 Banks	Other Banks
Amount (in billions)	203.6	416.3	298.5	321.3
Share	32.8%	67.2%	48.2%	51.8%

Table XXVI : NBFIs' Aggregate Balance Sheet and Income Statement			
			(BDT in billion)
ITEMS	CY11	CY12	CY13*
Property & Assets			
Cash in hand	0.02	0.18	0.04
Balance with other banks and FIs	20.2	31.7	46.9
Money at call & short notice	0.003	0.7	1.0
Investment in government securities	3.0	2.4	4.3
Other investments	13.7	13.5	10.5
Total loans & leases	200.0	247.4	314.7
Fixed assets	4.6	5.4	5.7
Other assets	34.8	25.2	50.4
Non-financial assets	-	-	2.3
Total assets	276.4	326.7	435.8
Liabilities & Equity			
Borrowing from other banks and FIs	78.4	84.8	108.1
Deposits	116.4	145.2	197.6
Other liabilities	24.2	37.0	43.5
Total liabilities	219.1	267.0	349.2
Shareholders' equity (capital)	57.3	59.6	86.5
Total liabilities and shareholders' equity	276.4	326.7	435.8
Income Statement			
Interest income	28.5	35.0	50.5
Less: Interest expense	(19.8)	(25.3)	(33.9)
Net interest income (Net II)	8.7	9.7	16.6
Investment income	2.7	2.3	1.6
Add: Commission, exchange and brokerage	0.5	0.2	0.8
Add: Other operating income	2.9	2.7	2.5
Non-interest income (Non II)	6.0	5.2	4.9
Total operating income (Net II + Non II)	14.7	14.9	21.4
Operating expenses	3.5	4.0	5.4
Profit before provisions	11.2	10.9	16.0
Total provisions	1.2	1.9	3.4
Profit before taxes	10.0	9.0	12.6
Tax provisions	3.1	2.9	4.6
Net profit after taxes	7.0	6.1	7.9

Data source: Department of Financial Institutions & Markets, BB
*Unaudited data

Table XXVII : NBFIs' Other Information

(BDT in billion)

Items	CY11	CY12	CY13*
Tier-I Capital	-	57.0	67.6
Tier-II Capital	-	4.9	5.3
Non-performing loans	10.3	13.7	17.7
Loan loss provisions (required)	6.0	6.9	8.6
Loan loss provisions (maintained)	7.0	7.7	9.5
Loan loss provisions (surplus/deficit)	0.9	0.8	0.9
No. of government-owned NBFIs	3	3	3
No. of local NBFIs	18	18	18
No. of NBFIs under foreign joint venture	10	10	10
Total no. of NBFIs	31	31	31
No. of branches	161	169	176

Data source: Department of Financial Institutions & Markets, BB
* Unaudited data

Table XXVIII : NBFIs' Liquidity Position

(BDT in billion)

Items	31 December 2011*	31 December 2012*	31 December 2013*
Total Liabilities	107.2	129.6	158.8
Total Term Deposits	78.8	99.4	127.0
Industry CRR (Required)	2.0	2.5	3.2
Industry CRR (Maintained)	2.2	2.9	3.7
Industry SLR (Required)	5.4	6.5	7.9
Industry SLR (Maintained)	14.1	19.3	24.8

Data source: Department of Financial Institutions & Markets, BB
* Unaudited data

Table XXIX : NBFIs' Summary Performance Indicators

(in Percentage)

Indicators	CY2011	CY2012	CY2013
Profitability & Efficiency			
Return on Assets (ROA)	2.5	1.9	1.8
Return on Equity (ROE)	12.1	10.2	9.2
Net Interest Margin (NIM)	4.3	3.9	5.2
Asset Turnover*	5.3	4.5	4.9
Interest Income to Total Assets	10.3	10.7	11.6
Net-Interest Income to Total Assets	3.1	3.0	3.8
Non-Interest Income to Total Assets	2.2	1.6	1.1
Operating Expense to Operating Income	23.9	26.7	25.4
Cost of Deposits & Borrowings	10.9	11.0	11.0
Asset Quality			
Classified Loans & Leases to Gross Loans & Leases	4.9	5.5	5.6
Classified Loans & Leases to Capital	18.0	22.1	24.3
Loan Loss Provisions to Capital	12.2	12.5	13.1
Loan Loss Provisions to Classified Loans & Leases	67.5	56.3	53.9
Capital Adequacy			
Capital to Risk Weighted Assets	18.3	19.4	18.3
Capital to Total Assets	20.7	19.0	16.7
Income Composition			
As Percent of Operating Income			
Interest Income	193.7	235.4	235.7
Investment Income	18.2	15.7	7.5
Feebased Income	3.1	1.4	3.5
Other Income	19.8	17.9	11.7
Asset Composition			
Sector-wise Distribution of Loans & Leases to Total Loans & Leases			
Trade & Commerce	9.7	11.2	14.5
Housing	19.3	17.6	12.2
Power, Gas, Water and Sanitary Service	-	-	12.1
Textile	5.4	5.4	4.8
Iron, Steel and Engineering	-	-	4.4
Transport & Aviation	4.9	4.3	4.4
Food Production and Processing Industry	-	-	4.1
Garments & Knitwear	4.9	4.5	4.0
Margin Loan	8.6	4.5	3.9
Merchant Banking	1.6	5.1	3.6
Agriculture	1.2	1.4	1.4
Others (including other sectors with minor share)	44.4	46.0	30.6

* Asset Turnover = (Net Interest Income + Non-Interest Income) / Total Assets

Table XXX : Interbank Repo Volume and Prices

Month	Interbank Repo Volume (Taka in billion)	Interbank Repo Rate (%)	Call Money Rate (%)
January, 2013	264.7	11.09	10.29
February, 2013	142.1	9.23	8.95
March, 2013	124.1	7.29	7.50
April, 2013	50.9	7.13	7.35
May, 2013	121.9	6.92	7.15
June, 2013	147.6	7.16	7.17
July, 2013	173.6	7.34	7.44
August, 2013	152.5	8.04	8.11
September, 2013	273.9	7.20	7.43
October, 2013	272.4	7.59	7.78
November, 2013	253.5	6.87	7.03
December, 2013	247.1	6.94	7.11

Table XXXI : Treasury and BB Bill Yield

Securities	June, 2010	June, 2012	June, 2013	December, 2013
91 Day T-Bills	2.42%	11.37%	8.34%	7.41%
182 Day T-Bills	3.51%	11.40%	10.23%	8.22%
364 Day T-Bills	4.24%	11.40%	10.36%	9.25%
2 Years T-Bonds	-	-	10.98%	10.03%
5 Years T-Bonds	7.87%	11.45%	11.55%	11.30%
10 Years T-Bonds	8.78%	11.60%	12.16%	12.11%
15 Years T-Bonds	8.80%	11.80%	12.40%	12.28%
20 Years T-Bonds	9.15%	12.12%	12.48%	12.32%
30 Days BB Bills	-	-	7.47%	7.09%

Table XXXII : Equity Market Development

Month	DSEX Index	Market Capitalization (in billion)	Market P/E
January, 2013	4,136.31	2,403.67	12.05
February, 2013	3,973.28	2,335.77	11.54
March, 2013	3,590.05	2,211.71	10.79
April, 2013	3,438.90	2,166.58	10.61
May, 2013	3,878.07	2,384.09	12.06
June, 2013	4,104.65	2,530.25	14.60
July, 2013	3,940.81	2,503.37	14.43
August, 2013	4,127.48	2,640.74	15.18
September, 2013	3,937.68	2,529.25	14.36
October, 2013	3,967.73	2,512.66	14.23
November, 2013	4,230.73	2,635.13	15.08
December, 2013	4,266.55	2,647.79	15.07

Table XXXIII : Automated Cheque Clearing Operations

(Amount in billion BDT)

Category	CY 11		CY 12		CY 13	
	Number (in thousands)	Amount	Number (in thousands)	Amount	Number (in thousands)	Amount
High Value (HV)	3,123	4,177.8	1,263	5,977.42	1,365	6,877.9
Regular Value (RV)	17,954	5,093.9	18,824	4,827.44	20,695	5,165.5

Table XXXIV : Volume of Electronic Banking Transactions

(Figures in billion BDT)

Year	Using ATM	Using Debit Card	Using Credit Card	Internet Banking
2011	374.9[R]	454.2	39.6[R]	41.6[R]
2012	565.8[R]	585.0[R]	57.0[R]	48.7[R]
2013	654.3	775.7	62.7	90.5

*R = revised figures

Table XXXV : Number of Banks Providing Electronic Banking Services

Year	Online Banking	Internet Banking	Credit Card	ATM/Debit Card
2011	40	24	26	38
2012	42	27	28	40
2013	52	27	28	41

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