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Governor's Message

Financial developments over the last twelve months have clearly demonstrated that the road to continuing restoration of financial stability in the country will not be long, but may be a bit bumpy. A stable financial system plays a significant role in broadening economic growth and sustainable development by uplifting living standards; under a stable financial system households and firms hold and transfer financial assets with confidence, combining both wealth accumulation and secure, efficient payments, which are two of the building blocks of the Bangladesh economy. In this perspective, Bangladesh Bank (BB) defines financial stability as the condition in which the financial system and its various components, such as financial markets, banks and other financial institutions, payment and settlement systems, and security transfer systems are sufficiently resilient and working with no serious failure or undesirable impacts on the present and future developments of the economy as a whole while being capable of withstanding any financial and economic shocks, thereby reducing the possibility of disruptions in the financial intermediation process the severity of which may considerably impair the allocation of savings to profitable investment opportunities.

As part of its commitment to promoting the country's economic growth and sustainable development, BB actively fosters a stable and efficient financial system. The Bank promotes this objective by providing a number of traditional central banking services as well as giving emphasis to financial inclusion, prudential supervision of individual institutions, macro-prudential regulation and oversight, addressing systemic risks, and collaborating with various domestic and international policy-making bodies. It is noteworthy that BB is gradually complementing its traditional approach of micro-prudential regulation and oversight with macro-prudential techniques, with a view to identifying systemic risks well ahead of when they materialize and taking precautionary or corrective measures.

The Financial Stability Report (FSR) is one avenue through which the BB seeks to contribute to the longer-term resilience of the Bangladesh financial system. The prime objective of publishing this report is to provide an overview of the possible sources of risks and vulnerabilities to financial stability and to play an important role in preventing financial crises.

BB has so far published two FSRs on a yearly basis. FSR 2012 is the third issue, which aims to promote awareness of issues that are relevant for safeguarding the stability of the Bangladesh financial system.

FSR-2012 conveys the evaluation of BB regarding major trends as well as risks and fragilities in the financial system, focusing on their implication to financial stability and the efforts of BB in mitigating those risks. The focus of this report, therefore, is more on providing an assessment of the possible downside risks rather than prognosticating the most likely future path for the financial system. The report aims to promote informed public discussion on all aspects of the financial system.

In 2012, although the financial sector experienced some stresses, however, a number of favourable developments took place afterwards; gross international reserves attained a healthy level of meeting more than five months′ import payments at June 2013. Besides, from the second-half of 2012 inflationary pressures are in a much more tolerable single digit level. Liquidity position of the banks also improved considerably as evidenced from significant decline in call money rate.

BB has created the Financial Stability Department, introduced a software for monitoring large loans of banks, analytical reports titled 'Quick Review Report' on banks, a national payment switch for facilitating e-transactions, accomplished the preparatory works for implementing a financial projections model (FPM), and initiated the implementation of two of the Basel III liquidity metrics with a view to addressing systemic risks and increasing the resilience of the financial system to withstand different endogenous and exogenous shocks.

I expect that the key participants of the financial system and other stakeholders, inside and outside Bangladesh, will benefit from the report, not only in raising their awareness of the risks, but also in getting prepared to mitigate plausible risks.

Atiur Rahman, PhD
Governor

Deputy Governor's Message

Although some indicators reflect a sign of deterioration in the soundness of the banking system, the overall financial system is found to be resilient. There is no doubt that favorable macroeconomic conditions have contributed to upholding the growth of the financial sector. While the world economy is trying to overcome the global recession, Bangladesh has maintained a high foreign exchange reserve. Private sector credit growth, consistent with GDP growth targets and the monetary stance, was sufficient even in the face of restrained monetary growth path.

Bangladesh Bank (BB) practices both microprudential and macroprudential approaches for safeguarding standalone institutions and the system as a whole against the vulnerabilities and the fragilities persisting in the financial system. It applies microprudential tools to govern the behaviour of individual banks to reduce the risk of bankruptcy that could be disruptive to the depositors and impose costs on the government. BB has also introduced macroprudential oversight for supervising the banking system and the performance of the banks and non-bank financial institutions in a broad spectrum.

Financial stress, meaningfully, in one part of the system transmits stress to another part of the system. Macroprudential approaches, in the form of regulations, help BB to maintain financial stability by explicitly accounting for the 'externalities' arising from the behavior of individual institutions as well as the structure of the financial system. These approaches are used to limit the ex-ante externalities that lead to an excessive build-up of systemic risk, and the ex-post externalities that can generate inefficient failures leading to the demise of other institutions in a crisis.

The Financial Stability Department (FSD) in BB, considering the attempts of other developed and emerging countries in ensuring financial stability, is working rigorously to identify high risk institutions and giving an early warning to them. In this regard, stress testing has been introduced to understand and realize the risks that the banking sector is exposed to with a view to ensuring the soundness and sustainability of the industry and to making the banks more

shock-resilient. To meet the objective of ensuring financial stability, this department has undertaken some other steps, including the implementation of a 'Financial Projection Model (FPM)' with the assistance of World Bank, assessment of Domestic Systemically Important Banks (D-SIBs), and exploring the arena of macroprudential supervision tools such as the countercyclical capital buffer and capital conservation buffer, etc. Besides these, FSD has started to develop a contingency plan for the financial sector; for example, a bank resolution plan and lender of last resort policies, development of a real estate index, and oversight on the impact of public sector credit on private sector credit, etc.

Bangladesh Bank (BB), being motivated by the attempts of other central banks for unveiling and shoring up the financial stability of the country, has been publishing its 'Financial Stability Report (FSR)' on periodic intervals. The FSR 2012, the third of its series, aims to assess the financial stability of the country considering the global and domestic macroeconomic environment and instability. Compared to the previous version, the FSR 2012 is more analytical and comprehensive.

I hope that the stakeholders will get deep insights regarding the stability of the Bangladesh financial system from this report. I would like to convey my heartfelt thanks to all the officials of the FSD who worked diligently in preparing this diagnostic report.

Shitangshu Kumar Sur Chowdhury
Deputy Governor

Executive Summary

The Bangladesh economy demonstrated considerable resilience in 2012. While advanced economies recorded a real GDP growth of only 1.5 percent in 2012, Bangladesh achieved a remarkable real GDP growth of 6.3 percent in FY2011-12 underpinned by robust banking sector, attributable to strong domestic demand and a notable growth of the infrastructural sector.

In 2012, the domestic macroeconomic environment was favourable. The CPI inflation was though moderately higher in early 2012, the pressure, however, eased to a large extent during the latter half of CY12 and, by the time of this writing (end of June 2013) it had returned to a much more tolerable level.

The overall balance of payments recorded a mentionable surplus in CY12, in contrast to a deficit recorded in the previous fiscal year, although the trade deficit widened moderately due to a relatively larger expansion in import expenditure compared with the increase in export earnings.

Gross foreign exchange reserves, at end-December 2012, were US$12.8 billion, sufficient to meet nearly five months' import payments and thus contributing to maintaining stability of the financial system by lessening the likelihood and impact of turbulence in the foreign exchange market. Moreover, at end-June 2013, international reserves stood at an even more healthy level of US$15.3 billion.

In spite of a slight deterioration in some financial soundness indicators and the appearance of a number of scams, the banking system continued to demonstrate resilience in CY12. The banking sector balance sheet size grew notably; the growth was broad-based as most of the income-earning assets registered positive growth. Credit to the private sector recorded an increase. Moreover, banking sector penetration was enhanced with an aim to help strengthen the ongoing financial inclusion programmes, by bringing unbanked people into the banking network and expanding branch networks.

Banks' investment in government securities increased in 2012 compared to the previous year indicating a high government borrowing from the scheduled banks. Nevertheless, money at call as percentage of total assets decreased slightly at end-December 2012 compared to that of end-December 2011, indicating an increase in availability of liquid funds of banks to meet their immediate needs. Encouragingly, higher availability of funds brought down the ADR ratios of many banks below the permissible level.

Among these financial soundness indicators, the banking sector non-performing loan ratio recorded a moderate rise at end-December 2012 compared with end-December 2011, attributable to new stricter loan classification and provisioning regulation of BB, the ongoing global recession and inadequate infrastructure. There was also a downgrading of assets, emanating to some extent from a number of financial crimes in the banking system, examination of asset quality of banks by Bangladesh Bank (BB) before finalizing the banks' accounts, and an increase in frequency of loans examination by BB. The banking sector

recorded a moderate level of provision shortfall as of end CY12 as opposed to a notable surplus recorded in CY11. Of course, BB directed the banks having shortfalls to fulfill their provision requirements.

In 2012, the banking sector deposit structure continued to show a great reliance on term deposits. Besides, banking sector deposits were not heavily concentrated. The deposit insurance coverage of deposits increased significantly, indicating a comprehensive safety net for small depositors as well as a sign of resilience in the system.

Banking sector profitability indicators - return on assets (ROA) and return on equity (ROE)- recorded some decline in CY12, partly due to creating additional provisions as a result of the new stricter loan loss provision regulation adopted in 2012 by BB. The capital adequacy ratio (CAR) of the banking industry also slightly deteriorated compared to the position of end-December 2011, also largely attributable to the same reason. Nonetheless, as of end-December 2012, most of the banks were able to maintain their minimum required CAR of 10.0 percent in line with the Basel II capital framework. Importantly, a quite substantial part of banking assets belonged to banks compliant in CAR. However, in cross-country comparison, Bangladesh banking sector still has a long way to go, as the industry CAR is still far below than that of some South Asian countries namely India, Sri Lanka and Pakistan.

Banking sector interest rate spreads, have on average slightly decreased at end December 2012 from that at end January 2011, contributing to a slight decline in net interest margin. The weighted average interest spread of the banking industry continued to decline and at end April 2013 stood at 4.99 percent.

In 2012, most of the banks were able to bring down their advance to deposit ratio (ADR) within the limits set by Bangladesh Bank. The overall ADR arrived at a stable and acceptable position at end-December 2012. On the other hand, the banking sector maintained a surplus in the statutory liquidity requirement (SLR); the average SLR maintained by the banking sector was nearly one fourth of total demand and time liabilities. These were both positive developments in maintaining financial stability.

The banking sector risk structure, in line with Pillar 1 of the Basel II Accord, remained more or less stable in CY12 with respect to that of the previous year. At end-December 2012, the share of risk-weighted assets (RWA) assigned to credit, market and operational risks to total RWA were 86 percent, 5 percent and 9 percent respectively. In this regard, it is mentionable that from a credit rating point of view, in 2012, entities with higher rating (BB rating grades 1 and 2) in Bangladesh have retained their credit grading in most cases, but entities with a lower grading (BB rating grade 3 and 4) experienced rating movements in both directions with respect to their 2011 rating.

In a stress-testing exercise, the banking sector was found to be less resilient against credit shocks as of end-December 2012, compared with the previous year. However, the industry was found to be fairly resilient in the face of various market risk shocks as well as standard liquidity stresses.

Islamic banks showed a remarkable growth in CY12 in terms of industry assets, liabilities, deposits, and loans and advances (investments). The ROA of the Islamic banking industry was

moderately higher than that of the overall banking industry, indicating generally better quality assets in the portfolios of Shariah banks. The ROE of the Islamic banking industry was also significantly higher than that of the banking industry ROE in CY12, indicating better investment management by the Islamic banks, and, if needed, perhaps a greater future access to investors' capital.

Islamic banks complied with the SLR requirements in CY12 applicable to them. The Investment-Deposit Ratio (IDR) of full-fledged Islamic and conventional banks having Islamic banking branches/windows recorded a decline at end-December 2012 with respect to the end of the previous year, consistent with the trend observed at conventional banks.

Given the minimum capital adequacy requirement of 10.0 percent under the Basel-II Accord/Framework for CY12, most of the Islamic banks' CARs were significantly higher. Moreover, Islamic banks' classified investments to total investments ratio was notably lower compared with that of the overall banking industry in CY12.

The Non-Bank Financial Institutions (NBFIs) sector also remained stable in CY12. Stress tests on the NBFIs reveal that most of them are resilient against a number of plausible shocks. The borrowings, deposits and capital of NBFIs recorded a moderate increase compared with data of the previous year. NBFIs experienced deterioration in asset quality in CY12; the ratio of classified loans and leases to total loans and leases recorded a minor increase. The sector experienced a decline in profitability (ROA and ROE) as well, attributable to a decline in non-interest income and fee income from capital market activities.

In 2012, a mixed and rather more favorable scenario was observed in the capital market, in welcome contrast to the declining daily turnover coupled with substantial price correction and traumatized general investors' confidence in 2011. Stable growth in the issued capital (including IPO), an improved Herfindal-Hirchman Index, and a stable price-earning ratio brought some positivity in the market. However, the general price index, market capitalization, and market turnover continued to decline slightly. It is noteworthy that BB, Bangladesh Securities and Exchange Commission and other regulatory authorities signed a Memorandum of Understanding (MOU) in 2012 to share their views and take coordinated efforts to promote stability in the capital market as well as in the overall financial sector.

Bangladesh's financial infrastructure experienced several upgrades in CY12 which are contributing to the financial stability of Bangladesh. For instance, launching of a National Payment Switch by BB in order to create a common platform for bank cards, internet banking, and mobile based payments in Bangladesh; introduction of Electronic Fund Transfer (EFT) to facilitate the banks in making high value payments instantly using less materials and manpower; introduction of Mobile Financial Services (MFS); issuance of guidelines on uniform accounting procedures for Repo transactions of government securities by BB; introduction of online trading of government securities aiming to create a vibrant secondary market; creation of a Financial Integrity and Customer Services Department at BB; introduction of a 'Large Loan Monitoring Software' in its premises for closer monitoring of large loans; procurement of 'goAML' software by BB aiming to combat international terrorist

financing and money laundering; and initiation of an "elevator reporting" system titled 'Quick Review Report (QRR)' on a half-yearly basis with a view to analysing banks' overall condition, financial disclosure requirements and financial position.

BB in 2012 has put increased emphasis on macroprudential regulation, stringent on-site supervision and off-site surveillance of financial intermediaries, close collaboration among various regulators, together with increased risk awareness of the stakeholders of the financial system with a view to letting them withstand and adapt to plausible shocks well ahead of their potential materialization.

In a nutshell, the overall macroeconomic environment was favourable, and the financial intermediation process demonstrated considerable resilience amid unfolding of some financial scams in the banking industry. A series of efforts and policy actions by both BB and the Government contributed to maintaining financial stability. Nevertheless, there is no scope to remain complacent. Stakeholders of the financial system should remain aware of the potential risks and vulnerabilities with a view to withstanding and adapting to those accordingly.

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Acronyms

BACH	Bangladesh Automated Clearing House
BB	Bangladesh Bank
BBS	Bangladesh Bureau of Statistics
BCBS	Basel Committee on Banking Supervision
BDT	Bangladeshi Taka
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
FI	Financial Institution
FY	Fiscal Year
GDP	Gross Domestic Product
HBFC	House Building Finance Corporation
HHI	Herfindal-Hirchman 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
M2	Broad Money
MCR	Minimum Capital Requirement
MR	Market Risk
NBFI	Non-Bank Financial Institutions
NDA	Net Domestic Assets
NFA	Net Foreign Assets
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
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
T-bill	Treasury Bill
USD	United States Dollar

Chapter 1

Overview

The Bangladesh economy continued to demonstrate a considerable resilience during 2012, achieving a remarkable economic growth. While the advanced economies recorded a real GDP growth of 1.5 percent[1] in 2012, Bangladesh recorded a real GDP growth of 6.3 percent in 2011-12. A strong domestic demand as well as persistent growth of infrastructural sector contributed to achieving accelerated economic growth amidst the fragile pace of global economic recovery.

The CPI inflation reached a peak in February 2012 triggered mainly by the continuous rise in international commodity prices including food, fuel and fertilizers, and by the higher-than-targeted money supply growth, Taka depreciation, and the successive upward adjustments of administered energy and petroleum prices in the domestic market. However, during the latter half of CY12 the pressure eased to some extent. Unless administered fuel and energy prices are revised further upward, with continued bumper food production, inflation is likely to remain on a declining trend in the next calendar year.

Aggregate exports and imports, measured in local currency, recorded notable proportionate increases in FY12 compared to the same of FY11. Depreciation of the Bangladesh Taka played an important role to the stated exports and imports growth. Besides, both export earnings and import payments, expressed as percentages of GDP, increased slightly in FY12 compared to those of the previous fiscal year.

The trade deficit widened moderately in FY12 owing to the relatively larger expansion in import expenditure compared to the increase in export earnings. Services account and income account also widened moderately. Current transfers recorded a sizable increase attributable to a significant rise in workers' remittances. The huge current account surplus, a significant rise in both FDI and portfolio investment, and other investments in the financial account, led the overall balance to record a mentionable surplus in FY12 in contrast to a deficit recorded in FY11. The depreciated value of the Bangladesh Taka affected overall foreign exchange transactions. Hopefully, trade activities recovered during the fiscal year as global economic conditions improved.

The net international reserves remained above US$ 10.0 billion while the world economy has been trying to overcome the global recession in CY12. The gross foreign exchange reserves at end December 2012 was US$ 12.8 billion, which was sufficient to meet nearly five months' import payments against the requirement of meeting three months' import payment.

Official foreign aid disbursement increased considerably in FY12 from that of FY11. Total outstanding official external debt as of 30 June 2012 stood at nearly 20.0 percent of GDP against the same ratio recorded on 30 June 2011.

[1] As per International Financial Statistics online database

Broad money (M2) growth in FY12, coming from increases in both net domestic assets and net foreign assets, was marginally lower (4 percentage points) than the same in FY11. The growth in domestic credit was marginally higher than that of the growth recorded in FY11 due to a decline in the growth in private sector credit that emanated from a restraining monetary policy stance. The repo and reverse repo rates (policy rates) were raised by 50 basis points with effect from January 8, 2012. The interest margin for the special repo was raised by 100 basis points.

During the first-half of CY12 credit to the private sector was envisaged to remain at a healthy position. BB advised banks to keep the interest rate spread in lower single digits (below five percent). The interest rate cap on lending in all sectors other than pre-shipment export credit and agricultural loans was eliminated.

BB's monetary program for the second half of CY12 aimed to contain reserve money growth to nearly 15.0 percent and broad money growth to 16.0 percent by December 2012. Growth of credit to the private sector was envisaged to continue at a healthy rate.

BB, with an aim to reduce the liquidity pressure on primary dealers (PDs) and to balance the investment of scheduled banks in government securities, decided to distribute a major portion of the unsubscribed amount of Treasury bills/bonds to scheduled PD banks and the remaining portion to non-PD scheduled banks. Besides, in order to keep a business-friendly environment, BB instructed the banks to review the interest rate only once in a month. Issuance of BB bills was started to mop up the surplus and idle funds of banks. Furthermore, BB asked the commercial banks not to exceed the consumer credit growth more than the average growth of loan portfolios of the banks.

Government borrowings (net) from the banking system, both in absolute terms and as a percentage of GDP, recorded a decline in FY12 compared with those of the previous fiscal year, which allowed room for banks to extend their lending to the private sector.

In spite of worsening in some financial soundness indicators, and the appearance of a number of scams, the Bangladesh banking system continued to demonstrate resilience in CY12. Underpinned by strong macroeconomic fundamentals, the banking sector balance sheet size grew notably compared with the same at end-December 2011; the growth was broad-based as most of the income-earning assets registered positive growth. Credit to the private sector recorded an increase in CY12. With the aim to help strengthen the ongoing financial inclusion programmes by bringing unbanked people under banking network, banking sector penetration was enhanced and branch networks were expanded. The capital position of banks increasing steadily, but the scenario of non-performing loans (NPLs) of banks took a turn for the worse in CY12.

The share of loans and advances to total assets in percentage points declined slightly, while the share of investment in government and other securities recorded a marginal proportionate increase. Investment in government securities increased indicating a high government borrowing from the scheduled banks. Banks' money at call has decreased slightly at end-December 2012 compared to that of end-December 2011 attributable to the increase in

availability of liquid funds of banks to meet their immediate needs. Higher availability of funds also brought down the CDR ratios of many banks below 90 percent in CY12.

Box 1.1 Bangladesh Financial System 2012: Stability Highlights

Factors that adversely affect the stability situation

- Capital market still demonstrating price correction with lack of confidence of the market participants;
- Some financial soundness indicators of the banking sector, such as profitability, capital adequacy ratio, and non-performing loans ratio, recorded a deterioration;
- Recurrence of various scams at financial institutions, particularly at banks, leading to confidence problem in the financial intermediaries;
- Decline in real GDP growth rate.

Factors contributes to improve the stability situation

- Stringent loan classification and provisioning;
- Constraint on loan rescheduling;
- Automation of the payment and settlement system;
- Strengthening of the credit information bureau;
- Broad-based social inclusion program;
- Emphasis on risk management in banks;
- Improvement in the inflation situation;
- Satisfactory international reserve;
- Decline in government borrowing (net) from the banking system;
- Improvement in capital base of non-bank financial institutions.

Necessary measures for market participants

- Insurance companies: to introduce risk-based capital adequacy framework in line with Basel II and developing risk management framework therein;
- Banks to improve capital base, profitability and other soundness indicators;
- Banks to strengthen their internal control framework;
- Financial intermediaries to improve corporate governance.

Necessary measures for policymakers

- Introduce consolidated supervision in the banking industry;
- Develop resolution regimes for banks;
- Strengthen cooperation among various regulators of financial intermediaries;
- More stringent supervision of banks and other financial institutions.

Compared to other countries, the banking sector in Bangladesh is not concentrated and thus contributes to financial sector stability. The calculated Herfindahl-Hirschman Index demonstrated a sign of a moderate sectoral concentration of loans in the banking system in CY12.

The classified loans ratio of the banking sector recorded a moderate rise at end-December 2012 compared with that at end-December 2011, which could largely be attributed to the new stricter loan classification and provisioning regulations of BB. There was also a downgrading of assets emanating to some extent from a number of financial crimes in the banking system identified in the recent past, recent initiatives by BB of examining the quality of assets before finalizing the banks' accounts, more emphasis on subjective judgments in evaluating asset quality, and an increase of frequency of loans examination by BB. The ongoing global recession and inadequate infrastructure also intensified the growth of classified loans in CY12.

The non-performing loans (NPLs) to total loans ratio increased moderately in CY12 from what was recorded in CY11; more than two thirds of total NPLs were Bad/Loss which was alarming for the banking sector. Although the ratio of bad loans to total classified loans ratio decreased moderately in CY12 with respect to CY11, a significant amount of inferior quality asset still exists within the banking sector. Moreover, the banking sector recoded a moderate level of provision shortfall as of end CY12 as opposed to a notable surplus recorded in CY11. BB, however, instructed the banks having shortfalls to fulfill their provision requirements.

Banking sector classified loans were widely distributed among the banks. High volumes of classified loans required banks to create huge cumulative provisions at the end of CY12. However, the increase in provisions did not keep its pace with the rise in classified loans, and consequently the provisions to classified loans ratio recorded a moderate downward shift by end of the CY12, which may give an early warning signal of deteriorating resilience of banks, especially in the presence of Bad/Loss loans.

Deposits were the largest source of external funds in the banking sector in 2012. The major part of deposits came from urban area. Besides, the deposit structure showed a greater reliance on term deposits, regarded as more stable, which contributes to financial stability. Banking sector deposits were not heavily concentrated; the concentration ratios of the top 5 banks and top 10 banks within total deposits were nearly one-third and one-half at end-December 2012.

The deposit insurance aims at minimizing the risk of loss of depositors' funds with banks. The coverage of deposits increased significantly in CY12, indicating a comprehensive safety net for small depositors who make up the vast majority of total depositors as well as a sign of resilience in the system.

Banking sector operating profit increased slightly in CY12 compared with the same of the previous year. However, net profit recorded a major decline; return on assets (ROA) and return on equity (ROE) dropped in a parallel fashion to the declining net profit in CY12. The decline in aggregate profitability was widespread throughout the system, partly due to keeping additional provisions for the stricter loan loss provision regulation adopted in 2012 by BB.

The interest rate spreads, providing sufficient margins for banks to continue operating in the market, have on average slightly decreased at end December 2012 from that at end January 2011, contributing to a slight decline in net interest margin. The weighted average spread of all banks has continued to decline following the BB's instruction over the years.

As of end December 2012, most of the banks were able to maintain their minimum required capital adequacy ratios in line with Pillar 1 of the Basel II capital framework; however, the number of compliant banks slightly declined at end CY12 compared to that of end CY11. A quite substantial part of banking assets was concentrated in the banks outside the non-compliant CAR group which indicates financial soundness of the banking industry.

The banking sector capital adequacy deteriorated somewhat in CY12 compared to the same of the previous year largely attributable to stricter loan classification and provisioning requirements for the banks. In addition, Tier-I ratios, though demonstrating a fluctuating trend in 2012, recorded a slight decline in the fourth quarter of the year compared to the third quarter, which could be treated as a temporary concern for the banking industry. However, assuming that the increase in required provisions a one-time adjustment, and that there will be no deterioration in intrinsic asset quality that would require further provisions, in the quarters subsequent to the quarter ended in December 2012, banks' capital adequacy ratio might improve.

Taking the cross-country scenario into account, the Bangladesh banking sector still has a long way to go, as the industry CAR of the sector is still far below than that of some South Asian countries namely India, Sri Lanka and Pakistan.

Apart from capital adequacy, free capital of banks, defined by equity minus fixed assets, was in a rising trend during CY08 to CY12 implying that the amount of capital available to absorb losses was in an increasing trend. A majority of the banks maintained a leverage ratio (equity/total assets, not risk-weighted) higher than 5 percent in CY12. However, distribution of the leverage ratio suggests that there is still further room for the banks to improve their financial soundness in terms of this indicator.

BB is currently monitoring the advance to deposit ratio (ADR) of banks as a gross measure to calculate the liquidity condition prevailing in the economy. The ADR of the banking industry, from the beginning of 2012, recorded a decline due to the fact that the growth of deposits was higher than that of credit in 2012. It is noteworthy that, in contrast with 2012, the interbank money market faced liquidity stress throughout the CY11 and the banking sector ADR demonstrated a surge at the beginning of CY11. The stress was released in 2012 as more banks improved their ADR and the borrowing from the call money market decreased. In 2012, more banks were able to bring down their ADR within the limit set by Bangladesh Bank. The overall ADR at end-December 2012 arrived at a stable and acceptable position which indicates the banks were able to ease down from their condition of liquidity stress, and this is supported by the decrease in call money borrowing both in volume and in percentage.

In 2012, the banking sector maintained a surplus in the statutory liquidity requirement (SLR). The average SLR maintained by the banking sector was nearly one fourth of total demand and time liabilities.

The Bangladesh banking system is prone to a number of risk factors. Credit risk is the single largest factor affecting the soundness of banks and the banking system as a whole. In 2012, BB required banks to calculate their risk-weighted assets (RWA) in line with Pillar 1 of the Basel II framework. At end December 2012, the share of RWA assigned to credit risk was nearly 86 percent of the total RWA of the banking system, whereas the RWA associated with market risk and operational risk were only 5 and 9 percent respectively for the banking industry[2] . It is mentionable that credit risk increased because of higher credit growth in CY12, while market risk declined due to a reduction in the prices of equity instruments.

Basel II, the framework for banks' regulatory capital in 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. The Bangladesh Securities and Exchange Commission has so far permitted 8 local companies as ECAIs, in addition to Moody's Investors Service, Standard & Poor's Ratings Services and Fitch Ratings. They are all operating as subsidiaries or technical partners of the other credit rating companies incorporated in different countries.

In 2012 highly rated entities (BB rating grades 1 and 2) in Bangladesh have retained their grading in most cases, but entities with lower grading (BB rating grade 3 and 4) experienced rating movements in both sides with respect to their 2011 rating.

BB adopted a simple approach for credit risk mitigation under the standardized approach where collaterals are considered with applicable haircuts. As of end December 2012, total value of the collateral held against the banks' finances was BDT 409.7 billion. BB, through its process document of SRP-SREP dialogue on ICAAP under Pillar 2 of Basel II, instructed banks to send their relevant information of accepted collaterals on a regular basis.

Banking sector resilience is gauged on the basis of an array of credit and market risk scenarios. From a credit risk point of view, under a minor shock the banking sector capital adequacy ratio (CAR) slightly falls below the regulatory minimum requirement of 10 percent. However, default of just 3 large borrowers will lead to undercapitalization of a majority of the banks.

Taking into account sectoral concentration in the banking sector, as of end December 2012, if an additional 3 percent of the trade sector loans, the sector having highest exposure, become non-performing, then the industry CAR will still remain marginally over the regulatory minimum requirement implying that this sort of stress may not have a significant impact on capital. In addition, in case of a minor decline in the forced value of mortgaged collateral, only a limited number of banks will become undercapitalized. Furthermore, a minor downgrading in existing loan categories will make only a single bank newly undercapitalized. In sum as of end December 2012, the banking sector is found to be less resilient when different credit shocks are applied.

[2]Composed of only scheduled banks

The banking industry is found to be fairly resilient in the face of various market risk shocks. Moreover, in case of liquidity stress the banking sector as a whole remains resilient. The CAR of none of the banks will be affected much under the overall market risk shocks, except for 1 bank due to an interest rate shock and 2 banks due to an equity price shock.

Islamic banks in the banking sector showed a remarkable growth in CY12 in terms of total assets, total liabilities, total deposits and total loans and advances (investment). Investments were almost three-fourths of total assets, and deposits and other accounts comprise nearly 90 percent of total liabilities. Islamic banks' total asset base grew considerably, as did investments and advances and deposits. Net profit also registered a remarkable growth. While conventional banks suffered a declining profitability in 2012, especially near the end of the year, Shariah banks showed their prudence and efficiency in managing assets and attaining profits, bucking the trend of increasing NPLs in the banking system.

Although the Islamic banking industry is growing faster than the conventional banks, Shariah banks are still a minor proportion (grossly one fifth) of the total banking sector. Deposits are the main source of financing the assets of Islamic banking.The key financial indicators reflect a healthy financial position and intense potential for future expansion of Shariah banks in Bangladesh. Islamic banks managed healthy earnings in the form of profit income, which is the major component to their profitability.

During CY12, Islamic banks contributed nearly one fourth of the total profit of the industry. Comparatively lower income from off-balance sheet transactions was generated. The ROA of the Islamic banking industry was moderately higher than that of the overall banking industry, indicating better quality assets under possession of Shariah banks and earning more from the same amount of assets than the conventional banks. The ROE of the Islamic banking industry, on the other hand, was significantly higher than that of the banking industry ROE in CY12, indicating a better investment management by the Islamic banks in Bangladesh.

In recognition of the low volume of Shariah-compliant SLR eligible instruments available in the marketplace, Bangladesh Bank has generally allowed Islamic banks to maintain concessionary SLR requirements for Islamic banks in comparison with other conventional banks. Islamic banks complied with the SLR requirements in CY12 applicable to them.

The Investment-Deposit Ratio (IDR) of full-fledged Islamic banks at end CY12 was slightly lower than what recorded at end December 2011. However, the IDR of conventional banks having Islamic banking branches/windows recorded a decline at end December 2012 with respect to the end of the previous year. Given the minimum capital requirement of 10 percent under the Basel-II accord for CY12, the significantly higher CARs of most of the Islamic indicate both the financial strength and ample compliance of regulatory minimum capital requirements. The stronger capital base ensures that Islamic banks are well equipped to meet various kinds of shocks, if and when they arise. Islamic banks' classified investments to total investments ratio was notably lower compared with that of the overall banking industry in CY12.

The Non-Bank Financial Institutions (NBFIs) sector, consisting of specialized financing companies, leasing companies, investment companies, merchant banks, etc. remained stable and resilient during the CY12. The borrowings, deposits and capital of NBFIs recorded a moderate increase compared to those of the previous year. NBFIs' total assets recorded a notable increase in CY12 compared to that of CY11, representing 3.6 percent of GDP (current prices) and 4.6 percent of the total assets of the overall banking sector in CY12. The major portion of NBFIs' funds was deployed in term financing.

NBFIs' loans and leases were moderately concentrated during CY12. The housing sector, in particular, comprises nearly one-fifth of total loans and leases followed by trade and commerce with a share of nearly one-tenth.

NBFIs experienced a deterioration in asset quality in CY12. Classified loans and leases recorded a major increase compared with the end of the previous year. The ratio of classified loans and leases to total loans and leases recorded a minor increase.

NBFIs commenced implementation of the Basel II capital adequacy framework on 01 January 2012. The capital adequacy ratio of the sector was well above the regulatory minimum requirement of 10 percent in CY12.

In 2012, NBFIs' major portion of income was generated from term finance; interest on deposits was the major outlay of total expenses. The sector experienced a decline in profitability during CY12 attributable to decline in non-interest income and fee income from capital market activities. The return on assets and the return on equity recorded a minor decline in CY12 from those recorded in CY11.

Stress tests on the NBFIs, based primarily on a simple sensitivity analysis using four risk factors, namely interest rate, credit, equity price and liquidity shocks, reveal that most of the NBFIs are resilient against a number of plausible shocks.

In 2012, a mixed scenario was observed in the capital market as opposed to the preceding trend of declining daily turnover coupled with substantial price correction and traumatized general investors' confidence that took place in 2011. Stable growth in the issued capital (including IPO), an improved HHI index, and a stable P/E ratio brought some positivity in the market. However, the general price index, market capitalization and market turnover continued to decline slightly, for the second consecutive year.

The total market capitalization of DSE as of 30 December 2012 declined by nearly 8 percent from the previous year-end balance (as of 29 December 2011), while the total market capitalization of CSE declined about 10 percent during the same period. Market capitalization to GDP ratio reached to nearly 33 percent in FY10 indicating a greater share of financial flows supplied by the major economic agents present in the economy. However, it turned down to 21 percent in FY12.

The DSE general index, during 29 December 2011 to 30 December 2012, decreased by nearly 20.0 percent. It was at its lowest on 06 February 2012 and at its highest on 17 April 2012. It did not show any particular trend over that period, though a few short-lived upward and downward trends were observed.

The calculated Herfindahl-Hirschman Index (HHI) at end-December 2012 reveals a moderate concentration in the capital market. The banking sector index was reduced substantially in 2012, because of declining share prices of banks in the secondary market, and contributed to the declining market capitalization in banking.

The general price index, since December 2010, has dropped about 49.1 percent, while the price-earnings ratio has declined nearly 59 percent due to the growth of EPS of the listed companies. The insufficient liquidity and low investors' confidence severely handicapped the price discovery mechanism in the secondary market.

Bangladesh Bank, Securities and Exchange Commission and other regulatory authorities signed a Memorandum of Understanding (MOU) in 2012 to share their views and take coordinated efforts to promote stability in the capital market as well as in the overall financial sector.

Bangladesh's financial infrastructure experienced several upgrades in CY12 which are contributing to the financial stability of Bangladesh. Bangladesh Bank (BB) launched a National Payment Switch in 2012 in order to create a common platform for bank cards, internet banking, and mobile based payments in Bangladesh. All inter-bank domestic transactions originating from any delivery channel 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.

Electronic Fund Transfer (EFT) has been introduced to facilitate the banks in making high value payments instantly using less materials and manpower. The total monetary amount of EFT transactions under BEFTN in 2012 was BDT 284.3 billion, which is more than ten times the last year's (2011) EFT transactions.

In order to ensure the access of unbanked people, Mobile Financial Services (MFS) have been introduced. As of March, 2012, a total of 10 banks were given permission for operating this service in Bangladesh. Two service providers namely 'bKash' and 'Dutch-Bangla Mobile Banking' altogether made the largest contribution in this area.

An increasing trend in the adoption of electronic banking features was observed during CY10-CY12. Although, the number of banks introducing credit cards during CY10-CY11 became stagnant, there was an improvement during CY12. The volume of transactions using an ATM booth increased faster in 2012 than the increment between CY10 and CY11. Moreover, increasing trends in the transaction volume of debit cards and credit cards were observed.

BB in CY13 will introduce the 'Guidelines on Agent Banking' under which the agent of the commercial bank will be able to collect small value cash deposits and process cash withdrawals, handle inward foreign remittance disbursement, facilitate small value loan disbursement and recovery of loan installments, facilitate utility bill payments, facilitate cash payments under the social safety net programme of the government, generate and issue mini bank statements, sell crop and other insurance, etc.

BB has issued guidelines on uniform accounting procedures for Repo transactions of government securities by all scheduled banks and financial institutions acting as the primary dealer banks, aiming to strengthen the funding mechanism for troubled banks and reduce systemic risks. Besides, aiming to create a vibrant secondary market, BB in December, 2012 added a new horizon to financial markets by launching online trading of government securities. Currently, three types of treasury bills (91-day, 182-day and 364-day) and four types of government bonds (5-year, 10-year, 15-year and 20-year) are being traded. 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.

To protect the customers' interests BB had initially established a special desk known as 'Customers' Interests Protection Centre' (CIPC) in its head office and branch offices and thereafter created a Financial Integrity and Customer Services Department. Besides, for mitigating operational risks in banks, against the backdrop of various cases of fraud, BB introduced a 'Large Loan Monitoring Software' in its premises with an aim to prevent the recurrence of such scams and to providing for closer monitoring of large loans from origin to payoff. Furthermore, BB procured a software named 'goAML' aiming to combat international terrorist financing and money laundering that can threaten the security and stability of financial institutions and systems, undermine economic prosperity and weaken governance systems. Besides, for better international cooperation, the Mutual Legal Assistance Act on Criminal Matters (MLA Act), 2012 has been enacted, with the significant participation of BB. BB has developed the 'National Strategy for Anti Money Laundering and Combating Financing of Terrorism 2011-2013'. In addition, BB has signed MoUs with the central banks of South Africa and Mongolia in 2012 for sharing information and intelligence on money laundering/terrorist financing issues. Moreover, with a view to analysing banks' overall condition, financial disclosure requirements and financial position on a half-yearly basis, BB initiated a reporting system titled 'Quick Review Report (QRR)'.

Stock exchanges in Bangladesh initiated the process of demutualization that is switching from club-like mutual organizations to a share ownership structure. The Dhaka Stock Exchange (DSE) approved the draft act on 26 June 2012, launching demutualization of the stock exchange at a board meeting. The Exchange will set the trading rights criteria when it is completely demutualized.

In sum, the domestic macroeconomic environment was to a large extent favourable in 2012, which contributed notably to maintaining financial system stability. Nevertheless, there is no scope to be complacent. A series of efforts and policy actions though contributed significantly to maintaining financial stability the possibility of future risks and vulnerabilities cannot at all be ignored. More emphasis on macroprudential regulation, stringent on-site supervision and off-site surveillance of financial intermediaries, close collaboration among various regulators, increased awareness of risks in the financial system and taking precautionary measures well ahead may help the stakeholders of the financial system withstand and adapt to plausible shocks.

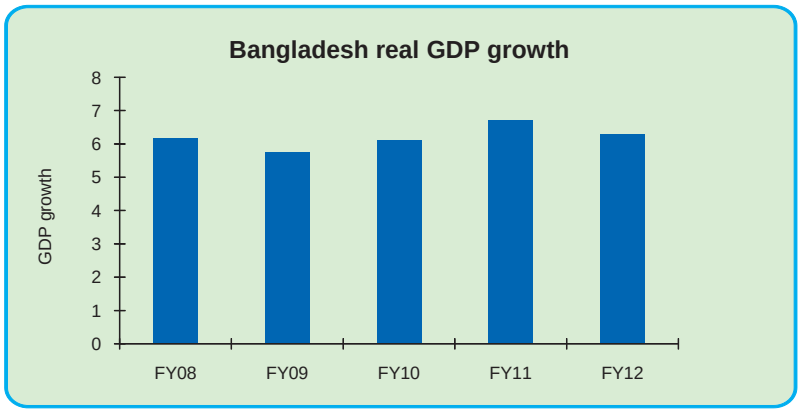
Chapter 2

Macroeconomic Developments

2.1 GDP Growth

The economy of Bangladesh continued to demonstrate a considerable resilience during 2012, achieving a significant economic growth. According to the Bangladesh Bureau of Statistics (BBS)'s provisional estimate, the real GDP of Bangladesh recorded a 6.3 percent growth[3] in FY12 (Chart 2.1) which could be attributed to 9.5 percent, 6.1 percent and 2.5 percent growth recorded in the industry, services and agriculture sector respectively. A strong domestic demand and persistent expansion of infrastructural sector contributed to accomplishing accelerated economic growth amidst the flimsy pace of global economic recovery. The service sector alone contributed around 50 percent of GDP, while the contributions of the industry and agriculture sectors were nearly 31 percent and 19 percent respectively.

Chart 2.1 Bangladesh Real GDP Growth



Source: Research Department, Bangladesh Bank.

2.2 Inflation

The CPI inflation in Bangladesh showed a mixed trend in CY12. The inflationary pressures started rising from the previous year, reaching a peak in February 2012 (11.0 percent, 12-month average basis, Base: FY96=100). The rising inflation was triggered mainly by the continuous rise in international commodity prices including food, fuel and fertilizers, and by the higher-than-targeted money supply growth, Taka depreciation, and the successive upward adjustments of administered energy and petroleum prices in the domestic market. However, during the latter half of CY12, the pressure eased somewhat. It is noteworthy that inflation went down to 8.7 percent in December 2012 from 10.9 percent recorded in March 2012. Unless administered fuel and energy prices are revised further upward, with continued bumper food production, inflation is likely to remain in single digits with a possible minor declining trend in the next calendar year.

[3]GDP in Bangladesh is estimated on a fiscal year basis.

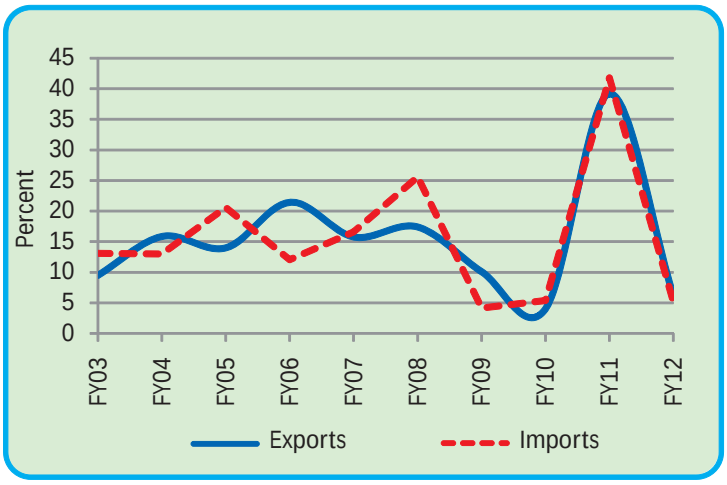
2.3 Export and Imports

Aggregate exports, measured in local currency, increased by 18.03 percent in FY12 compared to that of FY11. When measured in US$, this growth stands at 6.2 percent (Chart 2.2). Apparels (woven garments and knitwear products) continued to occupy an overwhelming (about three-fourths) share of the export basket in FY12.

Merchandise imports (fob), measured in local currency, on the other hand, increased by 17.2 percent in FY12 compared to that in FY11 with double digit positive growth for some of importable like staple fibre, sugar, oil seeds and edible oil, milk and cream. However, if measured in US$, import growth for FY12 stood at 5.2 percent. Decreased import payments took place only for rice, wheat, raw cotton, pulses (all sorts) and capital machinery. The depreciation of the Bangladesh Taka during FY12 with respect to FY11 played an important role in the rise of exports and imports growth measured in local currency compared to that measured in US$.

Export earnings, expressed as a percent of GDP, increased from 20.2 in FY11 to 20.8 in FY12. On the other hand, imports (c & f) as a percentage of GDP increased by 0.6 percentage point from 27.1 percent in FY11 to 27.7 percent in FY12.

Chart 2.2 Import and export growth



Source: Research Department, Bangladesh Bank.

2.4 Balance of Payments

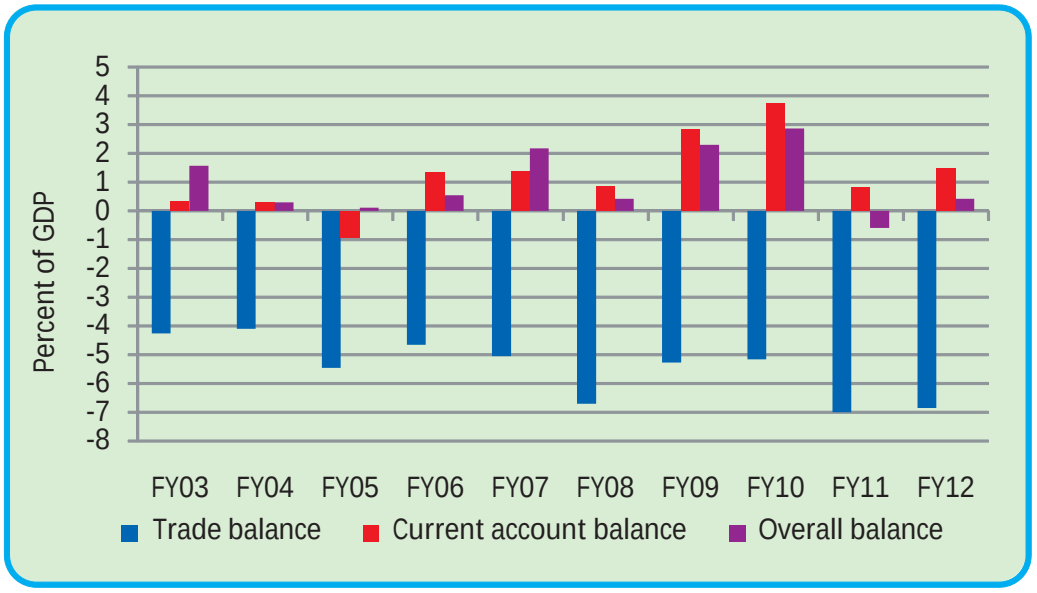
The trade deficit widened by 14.7 percent in FY12 owing to the relatively larger expansion in import expenditure compared to the increase in export earnings; the exact figure swelled from BDT 551.1 billion in FY11 to BDT 632.4 billion in FY12. The deficit in the services account, however, widened by BDT 34.4 billion to BDT 203.0 billion in FY12 from BDT 168.6 billion in the previous year, and the deficit in the income accounts widened slightly to BDT 119.3 billion in FY12 from BDT 103.5 billion in FY11. Current transfers increased substantially from BDT 886.20 billion in FY11 to BDT 1083.6 billion (22.3 percent) in FY12. As a result, the current account surplus widened significantly from BDT 63.0 billion in FY11 to BDT 128.9 billion in FY12 (104.7 percent). Current account balance as a percentage of GDP stood at 1.1

in FY12 against 0.7 in FY11. The huge current account surplus, a significant rise in FDI (net) and portfolio investment and other investment in the financial account led the overall balance to record a surplus of BDT 39.1 billion in FY12 in contrast to the BDT 46.7 billion deficit recorded in FY11.The depreciated value of the exchange rate affected to a great extent overall foreign transactions. Trade activities recovered during the year as global economic conditions improved. Chart-2.3 shows the current account balance to GDP ratio while Chart 2.4 portrays the trends of trade, current account and overall balances as a percentage of GDP in recent years.

Chart 2.3 Current account balance to GDP ratio

Source: Research Department, Bangladesh Bank.

Chart 2.4 Trends of trade, current account and overall balances

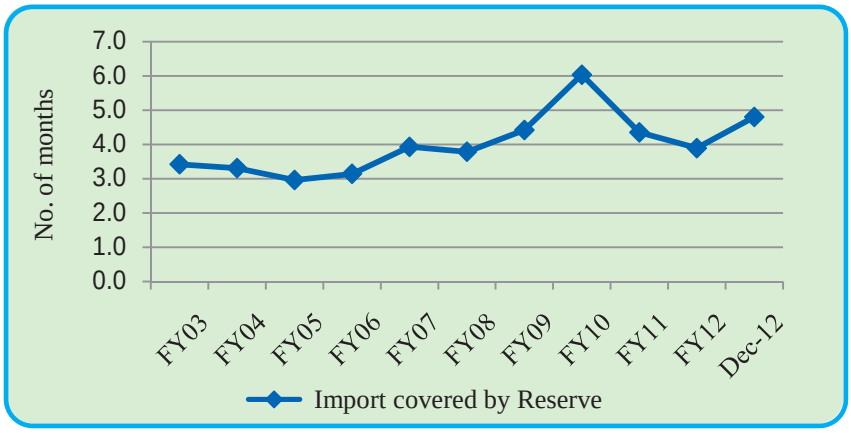


Source: Research Department, Bangladesh Bank.

2.5 Foreign Exchange Reserve

The net international reserves remained above US$ 10.0 billion while the world economy has been trying to overcome the global recession. Despite the quantitative easing in the US economy, worries about debt crises and austerity plans of euro-zone nations, and downgrading of sovereign ratings of a number of euro-zone economies by major rating agencies; BB was able to maintain stability in retaining foreign exchange reserves. The gross foreign exchange reserves reached a level of US$ 12.8 billion as at end December 2012, which is sufficient to meet 4.8 months' import payments of the country[4] (Chart 2.4). It is noteworthy that as of end June 2012, the international reserve was 10.4 billion, which was sufficient to cover 3.9 months' import bill. Accordingly, it is apparent that the position improved in the second half of CY12. In order to strengthen the long term stability of the country's reserves and diversify the external asset portfolio, BB invested in sovereign/supranational/highly reputed corporate bonds, Treasury Bills of US Government and in short term deposits with highly reputed commercial banks.

Chart 2.5 Imports covered by reserves



Source: Research Department, Bangladesh Bank.

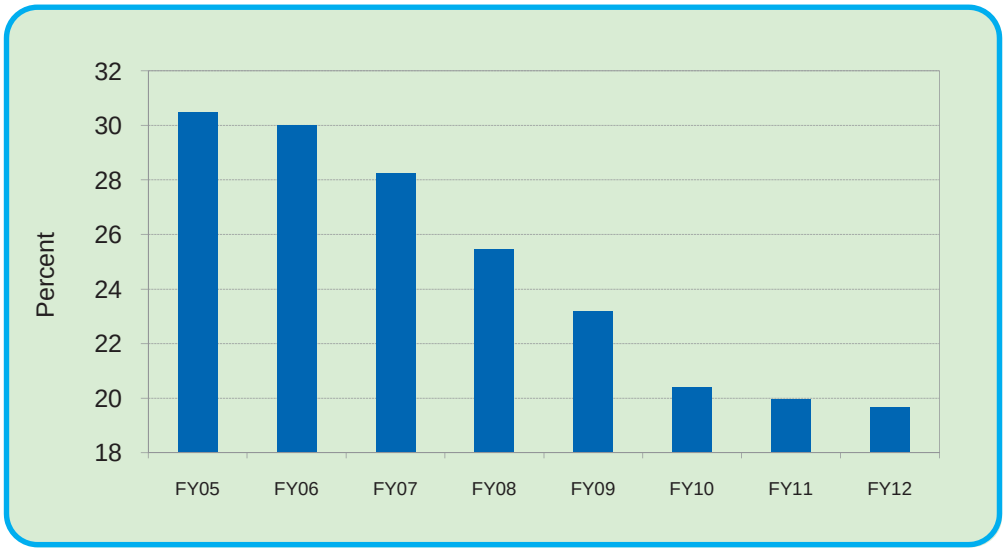
2.6 Foreign Aid and External Debt Repayment

Official foreign aid disbursement increased by 14.4 percent in FY12 from US$ 1.8 billion of FY11. Food aid disbursements stood at US$ 69 million, compared with US$ 55 million in FY11. The disbursement of project assistance stood at US$ 1964 million in FY12, also higher than US$ 1722 million in FY11. It may be mentioned that no commodity aid was received in FY12 as in the preceding year.

Total outstanding official external debt as of 30 June 2012 stood at US$ 22.8 billion (19.7 percent of GDP) against US$ 22.1 billion as of 30 June 2011 (also 19.7 percent of GDP). Repayment of official external debt stood at US$ 967 million (excluding repurchases from the IMF) in FY12. This was US$ 38 million or 3.9 percent higher than the repayment of US$ 929 million in FY11. The external debt ratio to GDP, which has remained relatively constant for the last two years, is shown in Chart-2.6.

[4]As a rule of thumb international reserve should cover at least three months' import bill

Chart 2.6 External debt/GDP ratio



Source: Research Department, Bangladesh Bank.

2.7 Money and credit growth

Broad money (M2) growth stood at 17.4 percent in FY12, which is marginally lower than the 21.4 percent growth recorded in FY11. The growth in M2 came from increases in both net domestic assets and net foreign assets.

The growth in domestic credit stood at 19.3 percent in FY12 against 19.1 percent under the monetary program due to the growth in private sector credit. Growth of private sector credit moderated to 19.7 percent against 25.8 percent growth achieved in FY11 due to the restrained monetary policy stance by BB. However, it was higher than the targeted 16.0 percent under the program and was made possible due to lower government borrowing from the banking system, which declined sharply in the second half of FY12. Credit to the public sector from the banking system recorded 17.5 percent growth throughout FY12 against the targeted 31.0 percent growth under the monetary program of BB.

2.8 Monetary policy

The BB announces its monetary policy stance through half-yearly Monetary Policy Statement (MPS); the fourteenth issue of the MPS was announced on July 18, 2012.

The monetary stance for January-June, 2012 pursued a restrained monetary growth path. The repo and reverse repo rates (policy rates) were raised by 50 basis points and re-fixed at 7.75 percent and 5.75 percent respectively, with effect from January 8, 2012. The interest margin for the special repo has been raised by 100 basis points and re-fixed at 10.75 percent.

Credit to the private sector was envisaged to remain at a healthy16.0 percent, well in line with the growth targets. Interest rate spreads were closely monitored, and apart from specific sectors such as SME and consumer lending, BB advised banks to keep the spread in lower

single digits (below five percent). To reduce bank loans under consumer financing, BB asked commercial banks to maintain a loan margin ratio for fresh loans at 70:30 (instead of 80:20) for house loans and 30:70 (instead of 50:50) for all other consumer loans including motor car loans. The interest rate cap on lending in all sectors other than pre-shipment export credit and agricultural loans was eliminated on 4 January, 2012.

BB's monetary program for July-December, 2012 aimed to contain reserve money growth to 14.5 percent and broad money growth to 16.0 percent by December 2012. Growth in credit to the private sector was envisaged to remain at a healthy 18.0 percent, enough to accommodate the FY13 GDP growth targets.

As a part of the existing monetary policy stance, 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 primary dealers (PDs) and balancing the investment of scheduled banks in government securities, BB decided to distribute 60 percent of unsubscribed amount of Treasury bills/bonds to PD banks and 40 percent to Non-PD scheduled banks. In order to keep the business friendly environment, BB instructed the banks to review the interest rate only once in a month and to keep the interest rate spread within 5 percent. Issuance of BB bills has been started to mop up the surplus and idle funds of banks since November 2012.

With a view to achieving a sustainable economic growth through increasing credit flow to the productive sectors by reducing loans from unproductive sectors including consumer financing, BB asked the commercial banks not to exceed the consumer credit growth more than the average growth of their loan portfolios.

2.9 Government borrowing from the banking system

Government borrowing (net) from the banking system, both in absolute term and as a percentage of GDP, recorded a decline in FY12 compared with those in the previous fiscal year. The secondary market in longer-dated treasury bonds still being very limited, banks and non-bank financial institutions holding primary dealership in Treasury bond faced additional liquidity pressure with the increasing volumes of these bonds in their holdings.

Chapter 3

Banking Sector

Against the backdrop of macroeconomic performance, considerable progress has been made in reinforcing the resilience of the banking system. The banking sector assets have increased and credit to the private sector has risen. Domestic private banks hold a majority of banking assets, and the role of state-owned commercial banks (SCBs) and specialized banks (SBs) has declined correspondingly. With the aim to help strengthen the ongoing financial inclusion programmes through bringing unbanked people under the banking network, banking sector penetration has been enhanced and branch networks have expanded. This bold step will facilitate extending credit facilities to the unbanked people, which in turn will be quite helpful in achieving the goal of vision 2021. The capital position of banks has been increasing steadily, but the scenario of non-performing loans (NPLs) of banks took a turn for the worse in CY 2012.

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), 30 domestic private commercial banks (PCBs), 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), House Building Finance Corporation (HBFC), 2 stock exchanges, 62 insurance companies, 599 registered[5] micro-credit organizations, 54 merchant banks (investment banks), 387 depository participants (stock dealers, brokers, etc.), 8 credit rating companies[6], and 119 registered co-operative banks[7]. In the system, Bangladesh Bank (BB), as the central bank, is regulating banks and non-bank financial institutions, the Securities and Exchange Commission (SEC) 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 and co-operative banks. 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 SEC, the IDRA, and the Ministry of Finance has been established and a MOU was

[5]As of October 2011, refer to BB website Micro Finance Institutions (MFIs)
[6]Source: web page of Securities and Exchange Commission (ESC) (last retrieval: http://www.secbd.org/Company.html)
[7]Source: web page of Board of Investment (last retrieval: http://www.boi.gov.bd/index.php/investment-climate-info/finance-and-banking#coorporative-banks)

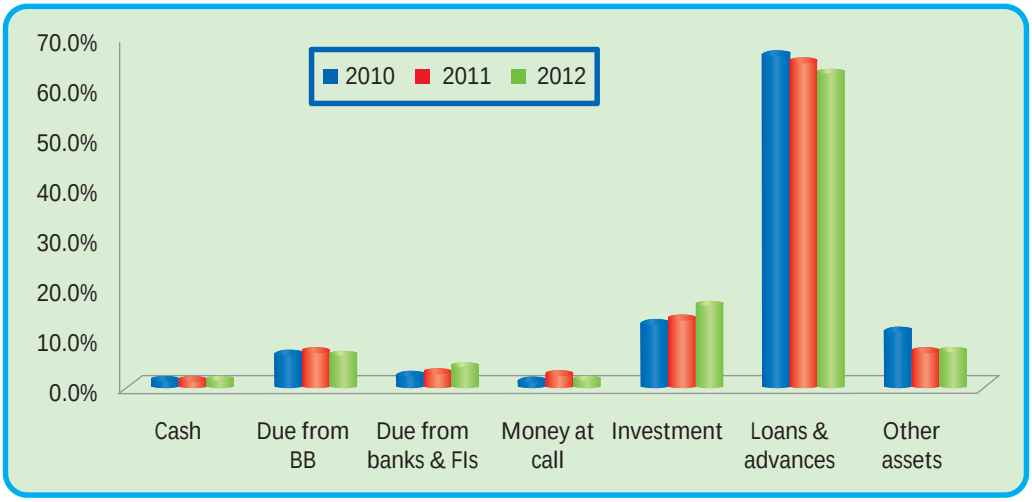
signed among them in 2012[8]. The financial sector is continuously evolving towards a more contemporary and efficient system of finance with supportive investment, friendly environment, and inclusive economic growth.

Broadly, the Bangladesh financial system is bank-based financed via financial intermediaries and remains dominated by the banking sector. No structural change was undertaken in CY 12, other than permitting 9 new banks in the system, of which 2 are specialized and 7 are full-fledged commercial banks. Out of these new banks 6 have, in the meantime (by June 30, 2013), commenced their operations.

3.2 Asset structure of the banking sector

Underpinned by strong macroeconomic fundamentals, the banking sector balance sheet size grew by 19.7 percent compared with end-December 2011 and reached BDT 7030.7 billion at end-December 2012. The growth was broad-based as most of the income-earning assets registered a positive growth.

Chart 3.1 Banking sector asset structure: end-December



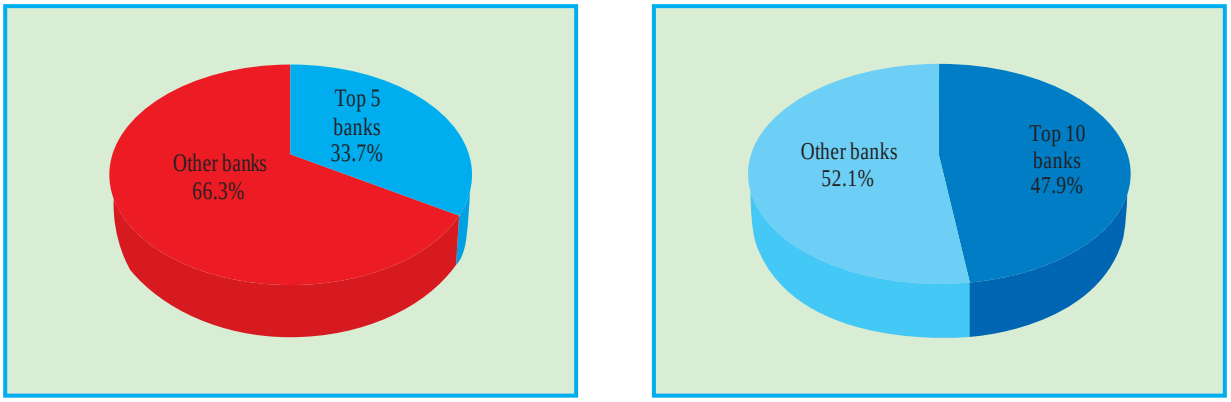
Source: Compilation (Aggregate balance sheet of banking industry) : FSD, BB.

The share of loans and advances is the largest share among asset items, but it declined by 2.2 percentage points in CY 12, while the share of investment in government and other securities increased by 2.3 percentage points. Investment in government securities has increased because of high government borrowing from the banking sector. The share of banks' assets with BB has decreased by 0.4 percentage points and with other banks and FIs increased by 0.9 percentage points. Banks' money at call has decreased by 1.2 percentage points at end-December 2012 compared with end-December 2011. It decreased due to the increase in availability of liquid funds of banks. Higher availability of funds also brought down the CDR ratios of many banks below 90 percent in CY 2012. The credit-deposit ratios (CDRs) of 5

[8]For details, please check Chapter 9 of FSR 2012.

banks were above 90 percent in end December 2012, while the number of banks having CDR ratios above 90 percent was 15 at end December 2011. Of the banking sector assets, 62.4 percent were represented by loans and advances during CY 12. The share of other assets increased slightly by 0.1 percentage points, implying slightly more new funds flowing to IT infrastructure and branch expansion and renovation of branches during CY 12, compared with CY 11.

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



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

Compared with other countries, the banking sector is not concentrated, which contributes to financial sector stability. The concentration ratios of the top 5 banks and top 10 banks within the total assets were 33.7 percent and 47.9 percent respectively at end-December 2012. Among the top 10 banks, 3 are state-owned commercial banks, 5 are domestic private commercial banks, 1 is a specialized development bank and the remaining one is a foreign commercial bank.

3. 3 Concentration of Assets in the Banking sector

The calculated Herfindahl-Hirschman Index (HHI) of 1631 points evidences a sign of a moderate sectoral concentration of loans in the banking system. The data also reveal that the banking sector loans are concentrated within a few sectors in CY12. In particular, large and medium scale industries show a 30 percent concentration of the total loan portfolio, followed by the two other economic purposes of wholesale and retail trade and import financing with a share of 19 and 13 percent respectively. Overall, the level of HHI, calculated below in Box 3.1, provides an early warning for the Bangladesh banking system as it is closer to the upper limit of moderate concentration, i.e., HHI of 1800.

Box 3.1 Sector-wise loans concentration (CY2012)

Sl.	Sector	Amount *(In Billion Taka)*	% of Total	HHI*
1	Agriculture	185.00	5	25
2	Fishing/Pisciculture	36.52	1	1
3	Forestry & Logging	0.18	0	0
4	Large & Medium Scale Industries	1219.57	30	900
5	Small Scale & Cottage Industries	38.97	1	1
6	Service Industries	118.45	3	9
7	Construction (Housing Societies & Companies)	113.58	3	9
8	Construction (Urban Housing)	128.30	3	9
9	Construction (Rural Housing)	8.33	0	0
10	Road Construction/Repairing	30.36	1	1
11	Construction (Apartment/House Renovation)	20.63	1	1
12	Other Constructions	69.87	2	4
13	Water Works	1.17	0	0
14	Sanitary Services	0.05	0	0
15	Road Transport	19.62	0	0
16	Water Transport	33.62	1	1
17	Air Transport	4.25	0	0
18	Public Utilities	35.26	1	1
19	Warehousing	1.31	0	0
20	Cold Storage	8.91	0	0
21	Wholesale & Retail Trade	782.55	19	361
22	Procurement by Government	4.49	0	0
23	Export Financing	183.91	4	16
24	Import Financing	542.25	13	169
25	Lease Financing	34.89	1	1
26	Leasing	26.73	1	1
27	Miscellaneous	457.52	11	121
	Total Loans & Advances**	**4106.29**	**101**	**1631**

** HHI = Herfindal-Hirchman Index;*

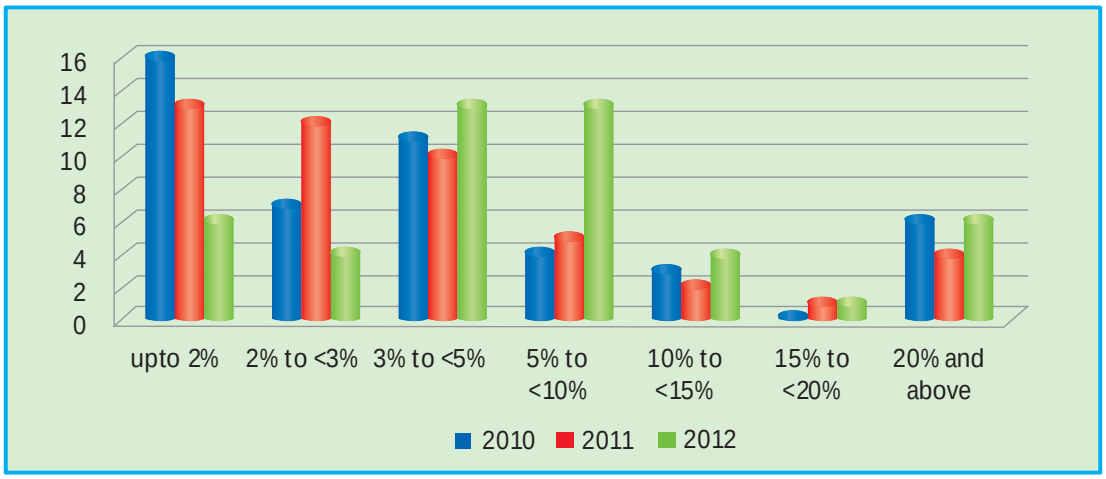
*** Total loans & advances excluding bills payable*

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

3.4 Banking sector classified loans, provisioning & write off

Classified loans[9] emanated from the deterioration in the quality of the loan portfolios which is 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, an increase of 3.8 percentage points at end-December 2012 compared with end-December 2011. Classified loans were in declining mode until 2011, but suddenly the trend turned around in 2012. The new stricter loan classification and provisioning regulations of BB may have been one of the major causes in the rise in classified loans. There was also a downgrading of assets against the biggest ever identified financial crimes[10] in the banking system of the recent past, recent initiatives by BB of examining the quality of assets before finalizing the banks' accounts, more emphasis on subjective judgments in evaluating asset quality, and an increase of frequency of loans examination by BB. The ongoing global recession and inadequate infrastructure to facilitate industry also intensified the growth of classified loans in CY-12. Given these trends, the stricter classification and provisioning rules are timely, and may help to increase the preparedness of the banking sector by hastening necessary changes in underwriting and collection, even though it may cause a one-time jump in the classified loans. In particular, classified loans of state owned commercial banks (SCBs) have increased severely. Classified loans of state-owned commercial banks to total classified loans in the sector increased by 9.9 percentage points, from 40.5 percent in CY11 to 50.4 percent in CY12. In monetary terms, classified loans of state owned commercial banks have increased by BDT 123.4 billion in CY12 from that of CY11.

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 banking sector classified loans were widely distributed among the banks. The distribution of banks based on their classified loans to total loans ratio

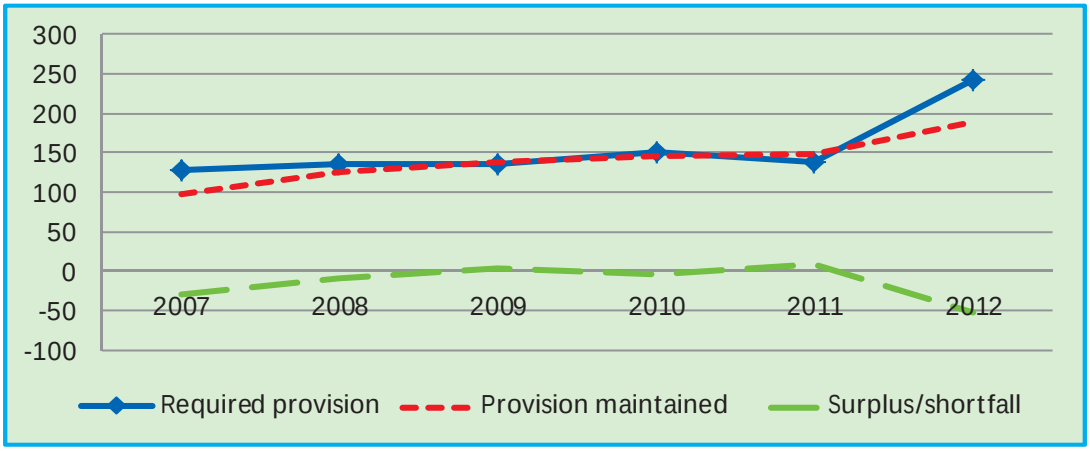
[9]Classified loans are those loans which are classified as `Sub-Standard', 'Doubtful' or `Bad/Loss' as per BRPD circular # 14, dated 23.09.2012.

[10]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 of trading, and other documents in 2012.

indicates that the number of banks with double-digit values of classified loans to loan ratios is 11 in CY12 and that was four more than CY11. Moreover, 6 banks have their classified loans to loans ratio over 20 percent. Notably, the classified loans to total loans ratios of 4 state-owned commercial banks ranged between 11 percent and 36 percent, whereas it was between 5 percent to18 percent in CY11. Out of 9 foreign banks, 6 are below 5 percent, 1 is above 5 percent and 2 are above 10 percent at end of CY12. However, all the private commercial banks' individual classified loans to total loans ratios are below 9 percent excepting 2 problem banks in the system.

The high level of the classified loans to total loans ratio has strong implications for overall financial performance of the banks. High volumes of classified loans required banks to create cumulative provisions amounting BDT 189.8 billion as at end of the CY12, which is BDT 40.9 billion higher than that of the CY11. This increase in provisions, although large, did not keep up with the rise in classified loans, and consequently the provisions to classified loans ratio shifted down to 44.4 percent by the end of the CY12, compared with 63.8 percent at the end of the CY11. One of the reasons of decline in the ratio of provisions to total classified loans is a shift in the composition of classified loans. Though the incremental amount of provision helped banks to strengthening their resilience, a decline in the provisions to classified loans ratio may signal an early warning of deteriorating resilience of banks, especially in the presence of BL/Loss loans of almost 67 percent of NPLs. However, lower proportionate increase in the substandard and doubtful loans relative to the bad/loss loans contributes to the decline in the ratio of provisions to classified loans which is not alarming.

Chart 3.4 Banking sector loan loss provisions: end December



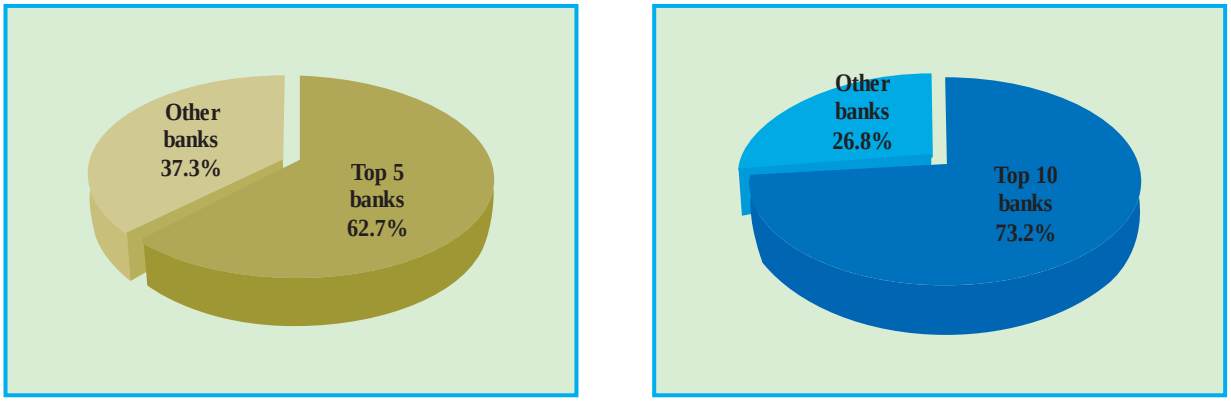
Source: Data: BRPD, BB; Computation: FSD, BB.

The shortfall in provision in the banking sector increased to BDT 52.6 billion as of end of CY12 from a surplus of BDT 9.6 billion in CY11. Three (3) state owned commercial banks, two (2) specialized commercial banks and three (3) domestic private commercial banks are among those saddled with a significant provision shortfall and whose deficiencies were reflected in a net shortfall in the banking sector in CY12. The remaining 39 banks maintained a surplus provision, but it was not significant in amount. BB, however, instructed banks that have shortfalls to fulfill their provision requirements. The shortfall in provisions of state

owned commercial banks amounts to 71 percent (BDT 37.3 billion) of the total shortfall (BDT 52.6 billion). It is noteworthy that almost all the banks other than the state owned commercial banks,two problem banks and two specialized development banks are showing a sign of resilience to the early headwinds of credit risk.

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 32.0 billion of adversely classified loans were written off from the books in CY12.

Chart 3. 5 Worst 5 and worst 10 banks based on NPL

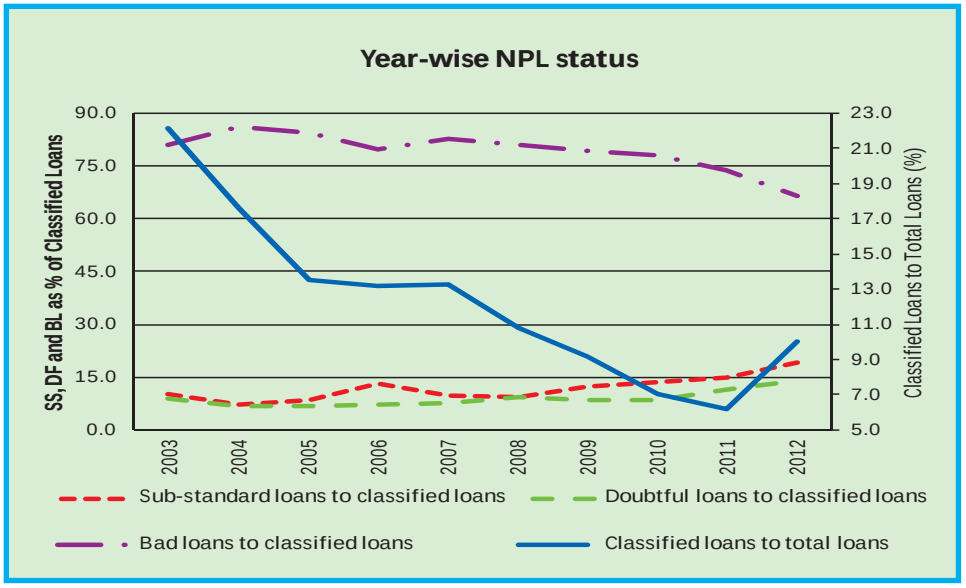


Source: BRPD, BB; Computation: FSD, BB.

Classified loan concentration ratios[11] (based on NPL amount) of the worst 5 banks and worst 10 banks were 62.7 percent and 73.2 percent respectively at end-December 2012. Almost two-thirds of the classified loans are concentrated in three state-owned commercial banks and two specialized development banks. 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 and politically motivated lending). 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, 3 are state-owned commercial banks, 2 are domestic private commercial banks, 3 are specialized development banks and 2 are foreign banks. It is matter of concern that two foreign banks included among the worst 10 banks based on NPL ratios though their total loan amount is not so significant.

[11]See Table: XXXI in Appendix for details

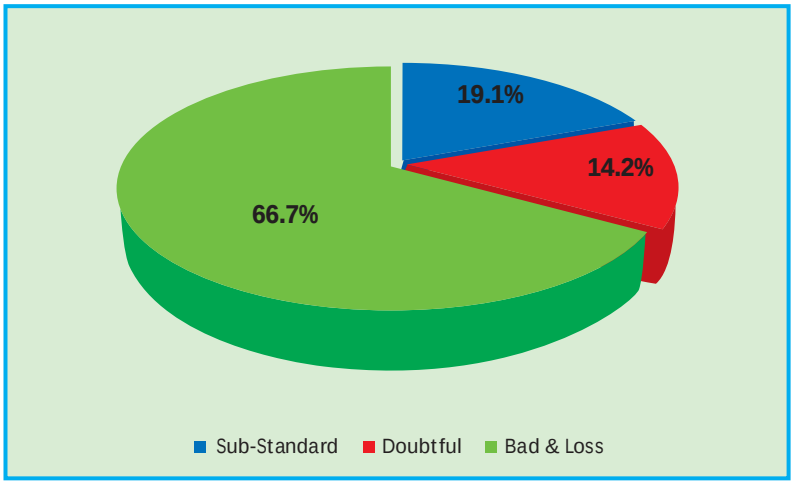
Chart 3.6 Year-wise classified loans ratios of the banking sector: end-December



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

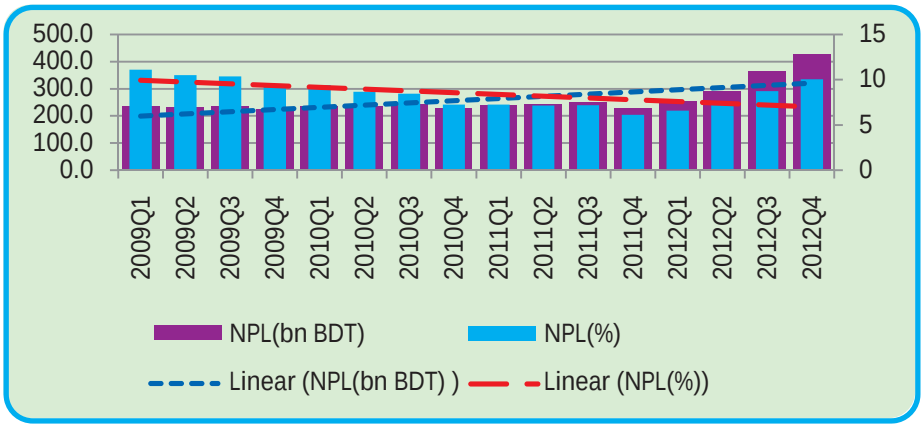
The non-performing loans to total loans ratio has increased to 10 percent in CY 12 from 6.2 percent in CY 11. More than two-thirds of total non-performing loans (NPL) [66.7 percent of NPL] amounting to BDT 285.0 billion is Bad/Loss. It is alarming that a bulk of classified loans were bad loans. Although the ratio of bad loans to total classified loans ratio decreased to 66.7 percent in CY 12 from 73.8 percent in CY 11, a significant amount of inferior quality asset still exists 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, on the other hand, under sub-standard and doubtful categories contained respectively 19.1 percent and 14.2 percent in total NPL.

Chart 3.7 NPL Compositions



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

Chart 3.8 NPL and NPL ratio during 2009-2012



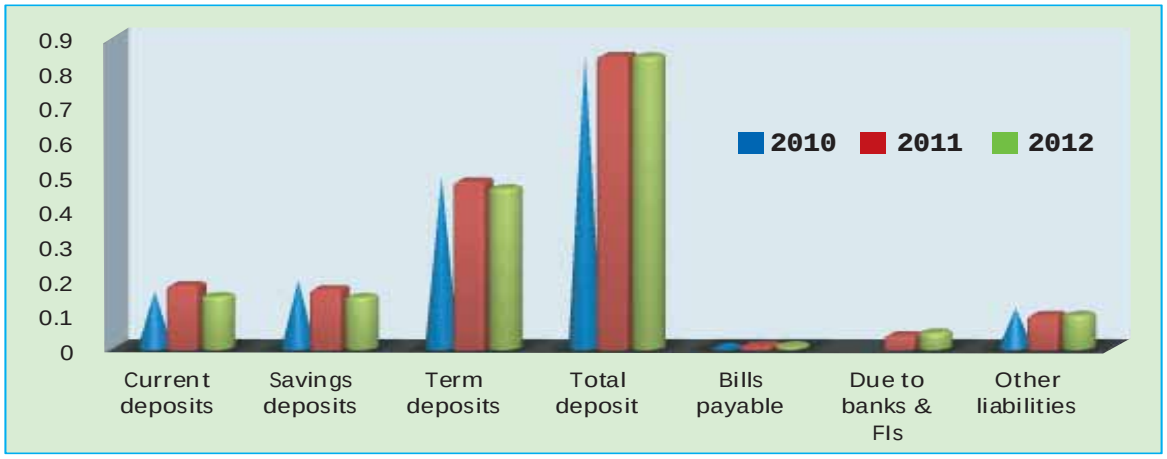
Source: Data: BRPD, BB; Computation: FSD, BB.

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[12].

3.5 Liability structure of the banking sector

Deposits are the largest source of external funds in the banking sector. The share of total deposits was 84.0 percent of the total liabilities as at end-December 2012. Total banking sector deposits were composed of 88.2 percent urban and 11.8 percent rural deposits in CY12.

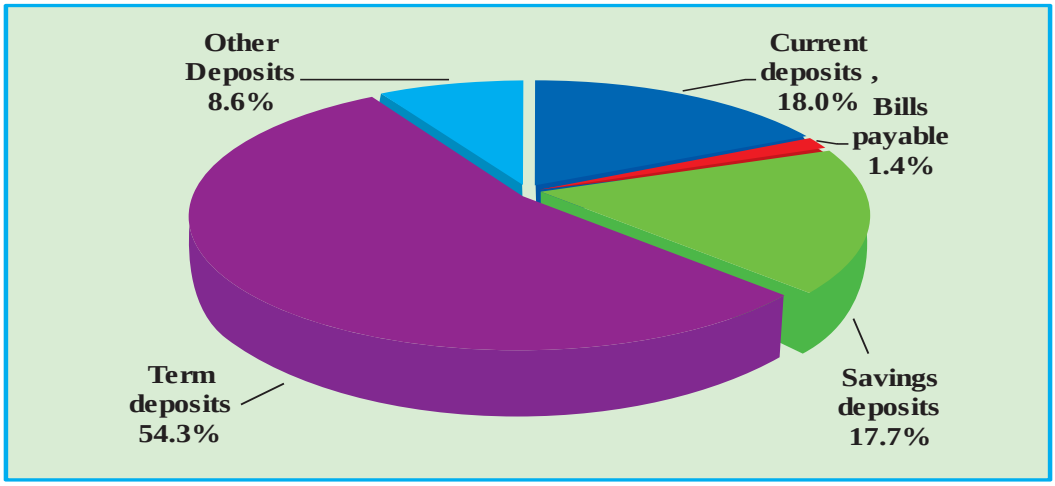
Chart 3.9 Banking sector liability structure: end-December 2012



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

[12]BB has made its loan classification/provisioning policy stricter through BRPD circular no 7 of 2012 and subsequently reviewed it through BRPD circular no 14 of 2012.

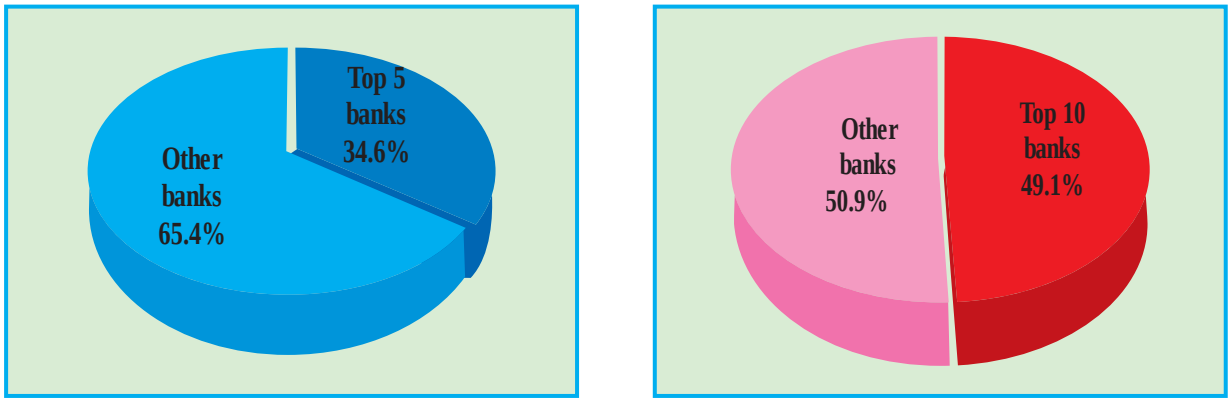
Chart 3.10 Banking sector deposit structure by types of account: CY 2012



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

As of end-December 2012, deposits increased by 20.2 percent and borrowing from other banks & FIs increased by 39.6 percent, whereas other liabilities increased by 17.2 percent compared with end-December 2011. The share of term deposits was 54.3 percent of total deposits, whereas, the share of savings deposits,current deposits, and other deposits were 17.7 percent,18.0 percent, and 8.6 percent respectively of total deposits at end-December 2012. The deposit structure shows a greater reliance on term deposits, regarded as more stable, which contributes to financial stability.

Chart 3. 11 Top 5 and Top 10 banks on size of deposit

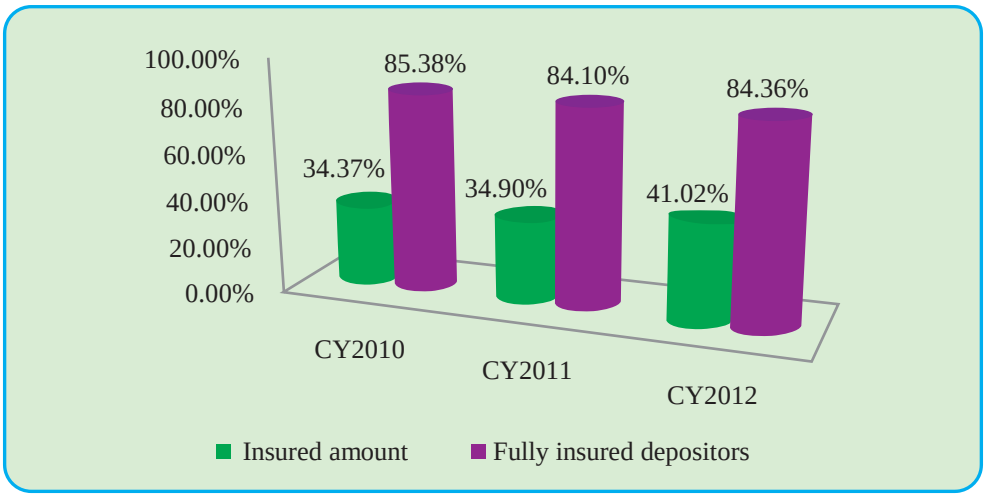


Source: Data: DOS, BB; Compilation (Aggregate balance sheet of banking industry): FSD, BB.

The concentration ratios of the top 5 banks and top 10 banks within total deposits are 34.6 percent and 49.1 percent respectively at end-December 2012. Among the top 10 banks, 3 are state-owned commercial banks, 5 are domestic private commercial banks, 1 is a specialized development bank and 1 is a foreign commercial bank. And among the top 5 banks, 3 are state-owned commercial banks and rest 2 are domestic private commercial banks.

3.6 Banking sector deposit safety net

Chart 3.12 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 thousand per depositor per bank. However, the proposal to enhance the ceiling of coverage to 200 thousand per depositor per bank is under process of approval with the Ministry of Finance. The percentage of insured monetary amount of deposits increased from 34.9 percent in CY 11 to 41.0 percent in CY12 as the number of small depositors increased in the banking sector. In addition, the percentage of depositors who are fully insured increased somewhat from 84.1 percent in CY11 to 84.4 percent in CY12, indicating a comprehensive safety net for small depositors who make up the vast majority of total depositors. Moreover, a well-diversified deposit base in the banking sector indicates a sign of resilience in the system.

3.7 Banking sector profitability

Banking sector operating profit increased by 5.6 percent from BDT 186.8 billion in CY11 to BDT 197.3 billion in CY12. The net profit decreased by 40.6 percent from BDT 75.2 billion in CY11 to BDT 44.66 billion in CY12. Accordingly, banking sector return on assets (ROA) and return on equity (ROE) dropped parallel to the declining net profit in CY12. ROA and ROE at end-December 2012 decreased by 70 basis points and 650 basis points respectively and reached to the levels of 0.6 percent and 7.8 percent respectively. This drop in aggregate banking sector profitability was widespread throughout the system - meaning many banks had a drop in profitability. The drop in profitability was caused partly by keeping the additional provision requirements for the stricter loan loss provision regulation adopted in 2012 by BB. It is noteworthy that the total provision increased by 93.4 percent from BDT 44.7 billion in CY11 to BDT 86.4 billion in CY12. However, 11 banks managed to go against this trend and have been able to increase their profitability in terms of ROA.

Box 3.2 Deposit safety net in banking system

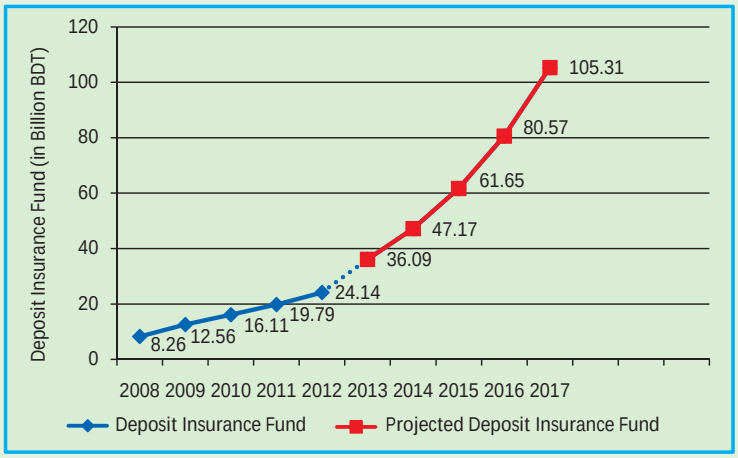
Deposit insurance fund and its composition
(Amount in Billion BDT)

Particulars	2008	2009	2010	2011	2012
Insurable Deposits	2213.24	2683.66	3238.58	3857.33	4636.78
Insurance Premium	0.63	0.77	0.92	1.09	1.51
i. Investment	8.21	12.50	16.11	19.46	23.99
ii. Cash	0.05	0.06	0.01	0.32	0.15
Deposit Insurance Fund Balance	**8.26**	**12.56**	**16.11**	**19.79**	**24.14**

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

Financial safety nets protect borrowers, depositors, and taxpayers from being directly harmed by financial-institutions' mistakes. Indirectly, they harm them by encouraging individual institutions to shift some of the risks generated by their lending and funding activities onto the safety net. Depositors want to be sure that deposit interest rates fairly compensate them for the risk exposures that bank loans and investments pass through to them. Bangladesh's deposit insurance fund reached 24 billion BDT in 2012, which is almost threefold of the balance of 2008. This fund is invested in the long term government bonds and the balance is composed of investment and cash. Premium as well as investment is increasing steadily.

Projected Depositors' Safety Net in next 5 years

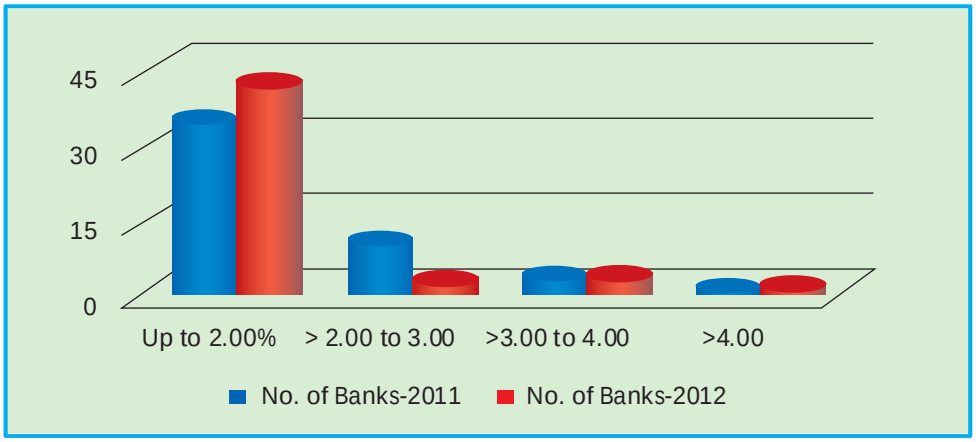


Source: DID, BB; Compilation: FSD, BB.

Note:
1. *New Premium rate has been introduced in the first half of CY 2013. Premium rate has been increased up to 14.28% approximately. For the calculation of the projected 2013 Fund Balance, this has been taken into consideration.*
2. *Growth of insurable deposits, premium, investment, interest income and fund balance as well as their projections have been calculated based on Geometric mean.*
3. *Cash has been forecasted as cash-investment ratio. The arithmetic mean of the cash-investment ratio during the years 2008 to 2012 has been used in the forecasting.*

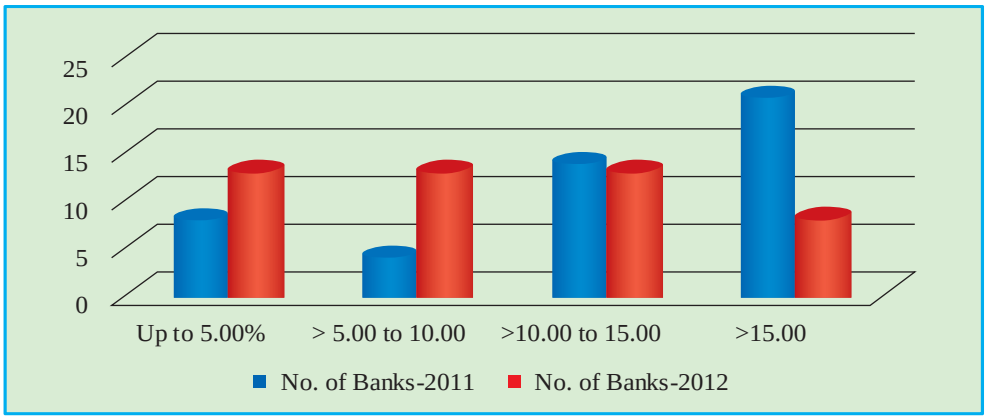
Bangladesh does not have any experience of bank resolution yet. It embraced deposit insurance in the banking system in 1984. Since then the deposit insurance fund is growing over time and assuming that, if it does not have to be used to resolve a failing bank, the projected size of the fund in next 5 years could be more than a hundred billion in local currency.

Chart 3.13 Sector return on assets (ROA): CY 2011-12



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

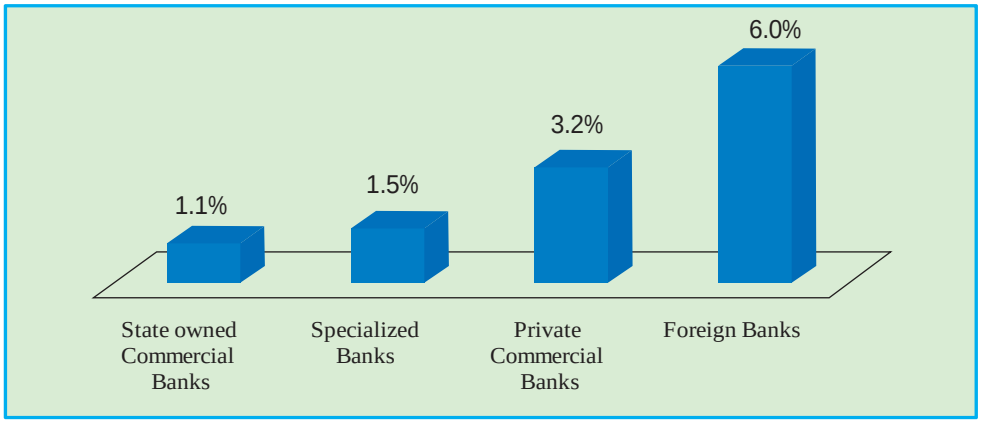
Chart 3.14 Banking Sector return on Equity (ROE): CY 2011-12



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 20 basis points from 3.0 percent in CY 11 to 2.8 percent in CY12 which had a slight adverse effect on the banking sector's profitability.

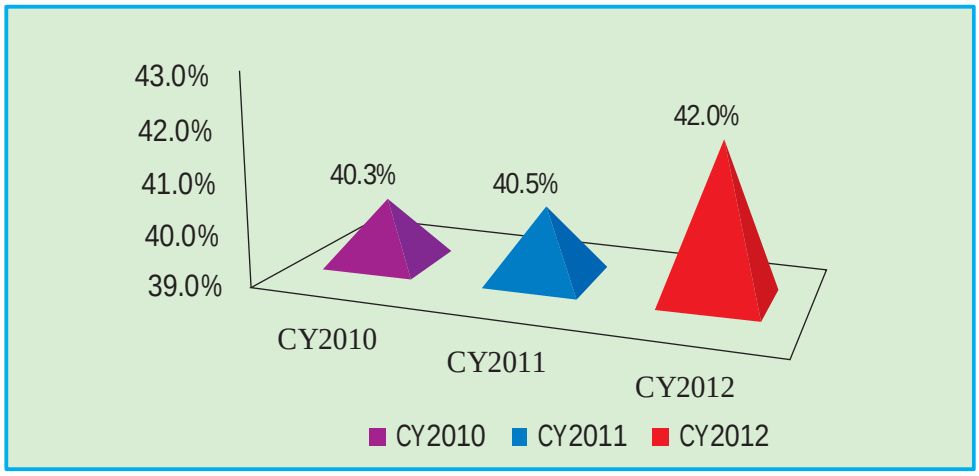
Chart 3.15 Sector wise net interest mangin in CY 2012



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

The net interest margin (NIM) of foreign banks is 6.0 percent, which is higher than that of state owned commercial banks, specialized banks and private commercial banks, which stand at 1.1 percent, 1.5 percent and 3.2 percent respectively. It is noteworthy that the interest income for foreign banks is much higher compared to their interest expense, whereas the interest income does not exceed interest expense by a very great amount for the state owned commercial banks and specialised commercial banks.

Chart 3.16 Banking sector non-interest expenses to total income

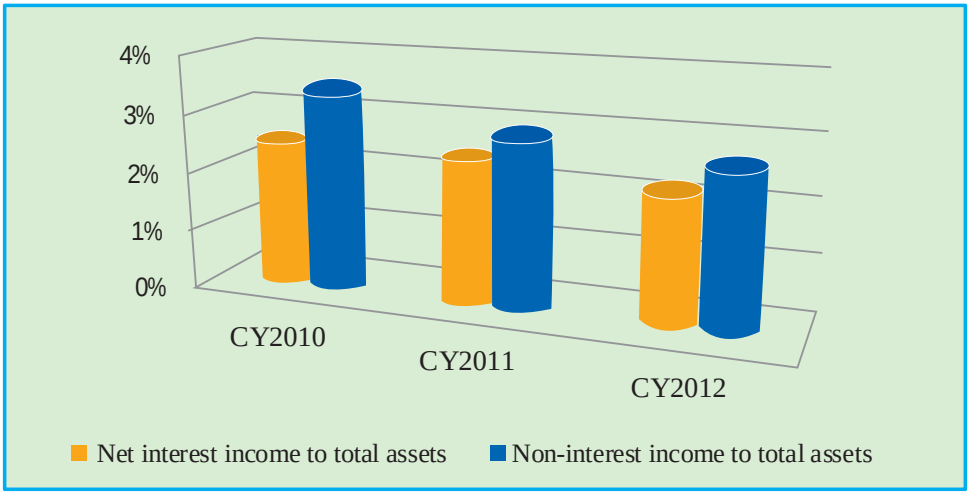


Total Income = Net Interest Income + Non- interest Income

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

The ratio of non-interest expenses to total income increased by 1.5 percentage points from 40.5 percent in CY 11 to 42.0 percent in CY 12, attributable to proportionate decrease in total operating income compared to operating expenses.

Chart 3.17 Banking sector income by sources

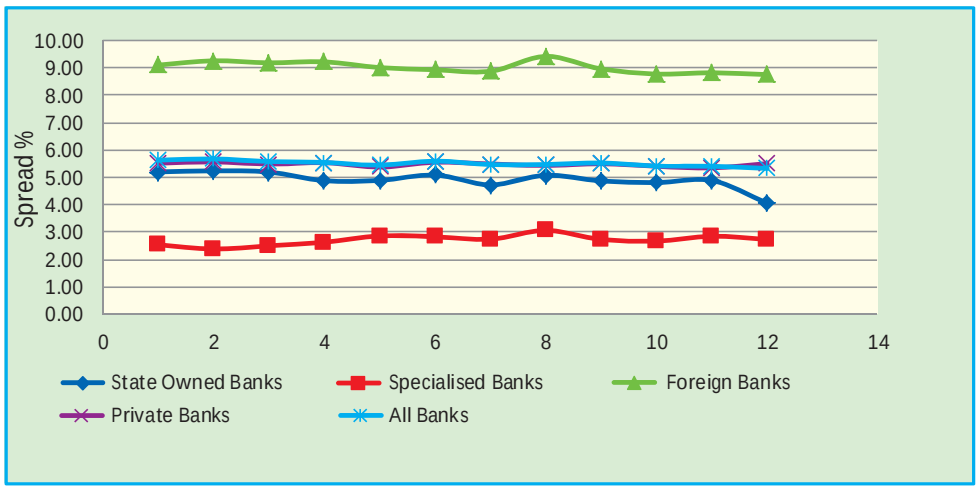


Source: Data: DOS, BB, Compilation (Aggregate P/L account of banking industry): FSD, BB.

The ratio of net-interest income to total assets decreased by 30 basis points from 2.5 percent in CY11 to 2.2 percent in CY12, and the ratio of non-interest income to total assets decreased by

20 basis points from 2.9 percent in CY11 to 2.7 percent in CY12.This outcome continues a trend established in previous years.

Chart 3.18 Banking sector monthly weighted average interest rate & spread



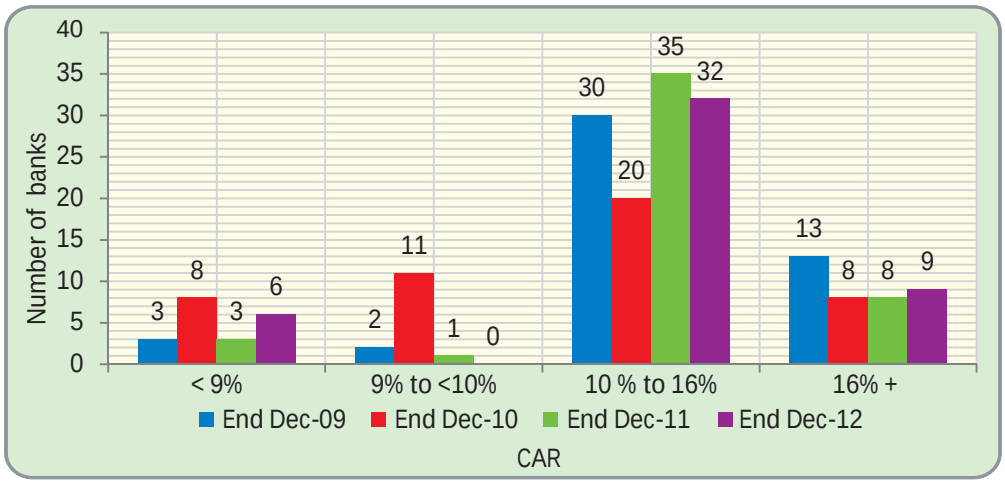
Source: Data: Various issues of Economic Trends; Computation: FSD, BB.

The interest rate spread provides sufficient margins for banks to continue operating in the market. Interest rate spreads have on average decreased from 5.6 percent in January 2012 to 5.3 percent in December 2012, contributing to the slight decline in net interest margin Bangladesh Bank (BB) has instructed all banks to reduce their spread at 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. Spread also can 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 a 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 hoped 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.

3.8 Capital adequacy

As of end December 2012, 87 percent of the scheduled banks in Bangladesh were able to maintain their minimum capital adequacy ratios above 10 percent in line with Pillar 1 of the Basel II capital framework. It is mentionable that at end December 2011, 91 percent of the banks fulfilled the requirement of minimum CAR of 10 percent.

Chart 3.19 Capital adequacy ratio of the banking sector

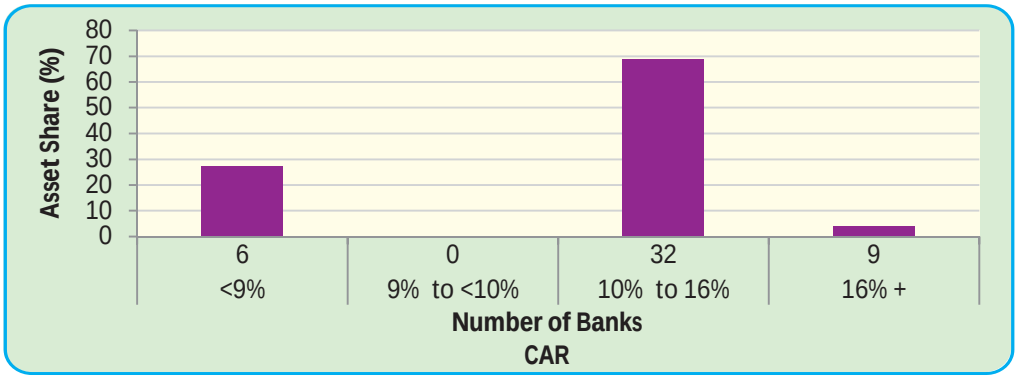


Source: Data: DOS, BB; Computation: FSD, BB.

On the other hand, as evident from Chart 3.21, a quite substantial share of banking assets was concentrated in the banks outside the non-compliant CAR group. Still, 32 banks' CARs were within the range of 10-16 percent and their assets accounted for nearly 69 percent of the total banking industry's assets as of end December 2012, implying that a notable number of banks maintained a CAR of 10 percent or higher, 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' are asked to make up the shortfall by increasing their paid up capital. On the other hands, 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 3.20 Asset Share of Banks based on CAR in CY12



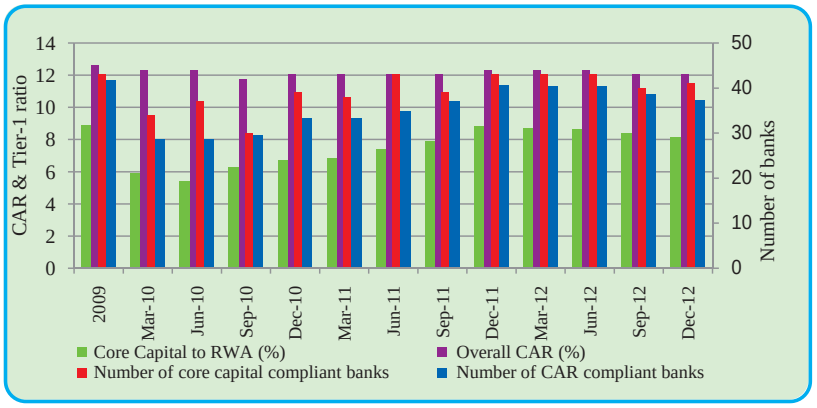
Source: Data: DOS, BB; Computation: FSD, BB.

The banking sector capital adequacy deteriorated somewhat in CY12 compared to the previous year, as evident from movement of CAR and core capital in CY12 (Chart 3.21). For instance, at end December-2011, the capital adequacy of the banking industry was 11.3 percent; the

same stood at 10.5 percent at end December 2012. This decline in industry level CAR could largely be attributed to stricter loan classification and provisioning requirements for the banks.

In addition, Tier-I ratios were 8.7 percent, 8.7 percent, 8.4 percent, and 8.1percent in the first, second, third and fourth quarters of CY12 respectively. As evident, the Tier-1 ratio (i.e. the purest capital ratio) commensurate with the regulatory requirement in CY12 recorded a slight decline after the second quarter of CY12, which could be treated as a temporary concern for the banking industry. However, it is hoped that the increase in required provisions is a one-time adjustment, and that there will be no deterioration in intrinsic asset quality that would require further provisions, so that in the quarters subsequent to the quarter ended in December 2012, banks' capital adequacy ratio might improve.

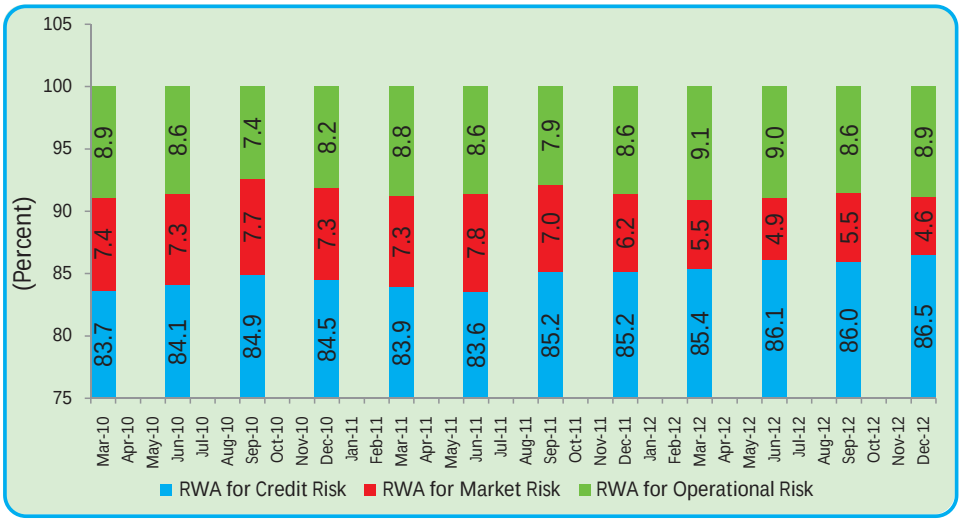
Chart 3.21 Tier-1 ratio and overall CAR of the banking industry



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

As of end December 2012, under Pillar 1 of the Basel-II capital adequacy framework, risk-weighted assets arising from credit risk accounted for by nearly 87 percent of the total industry risk-weighted assets, and the next positions were held by operational and market risks respectively. Since the credit risk accounted for the lion's share of the banking industry's risk-weighted assets, credit quality matters greatly here.

Chart 3.22 Distribution of risk weighted assets (RWA) in CY12



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

When a cross-country scenario is taken into account (Table 3.1), the Bangladesh banking sector still has a long way to go, as the industry CAR of Bangladesh is still far below than that of some South Asian countries namely India, Sri Lanka and Pakistan.

Table 3.1 International comparison of capital adequacy indicators

Countries	CAR (%)			
	2009	2010	2011	2012
India	14.0*	14.6*	13.5***	14.3*
Pakistan	14.0	14.0	14.1**	na
Sri Lanka	16.1	14.9	14.5***	na
Bangladesh	11.7	9.3	11.4	10.5

Source: RBI, SBP, CBSL, BB.

*as of end March, **as of end June, *** as of end September, na-not available

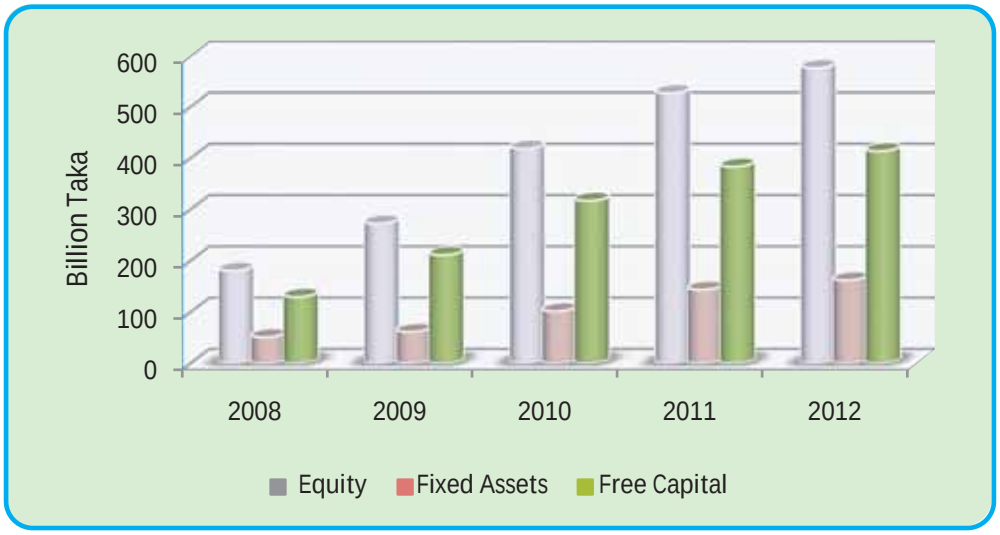
3. 9 Capital regulations issued by BB in CY12

BB has recognized the 'Waso Credit Rating Company (BD) Limited' as an External Credit Assessment Institution (ECAI) and provided mapping of the company's rating scales with its own rating grade vide BRPD circular No. 16 dated 29 October 2012. Besides, through BRPD circular letter no. 08 dated 23 July 2012, BB has made clarifications regarding some portions of Guidelines on Risk Based Capital Adequacy for Banks particularly risk weighting and reporting treatment of loans/advances to Exchange Houses by banks, loans/advances to Merchant Banks and Brokerage House by banks, investments of banks in the shares (equity) of Merchant Banks, Brokerage Houses and Exchange Houses that are not listed on stock exchanges, and investment of banks in the shares (equity) of the Merchant Banks, Brokerage Houses and Exchange Houses that are listed in stock exchanges.

3. 10 Free capital

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 3.23, free capital of the banking industry was in a rising trend during CY08 to CY12 implying that the amount of capital available to absorb losses was in an increasing trend.

Chart 3.23 Equity & free capital of the banking industry

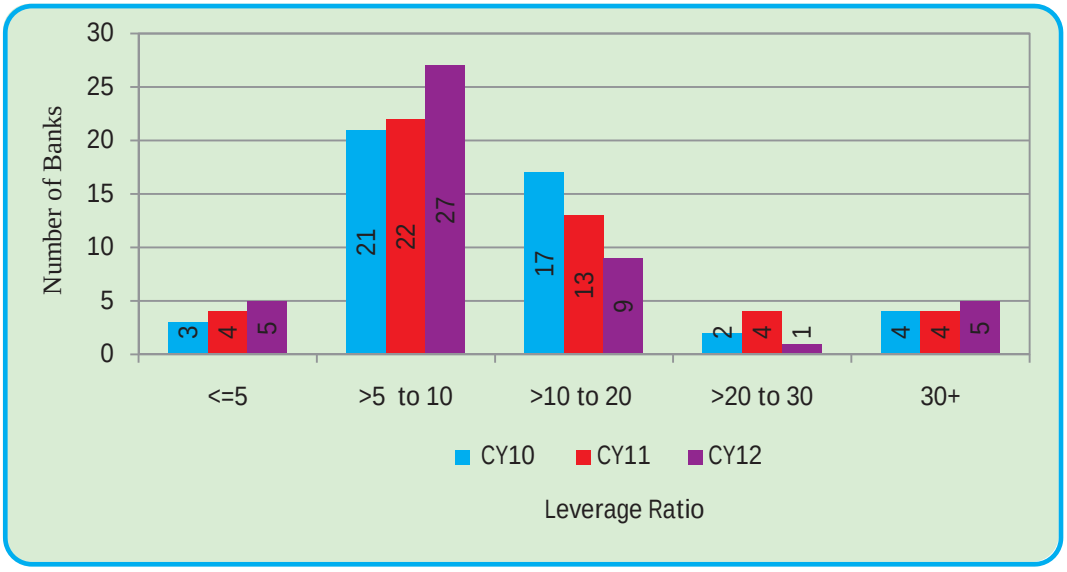


Source: Data: DOS, BB; Computation: FSD, BB.

3. 11 Leverage ratio

A majority of the banks maintained a leverage ratio (equity/total assets, not risk-weighted) higher than 5 percent in CY12. As evident from Chart 3.24, out of 47 banks, 42 had a leverage ratio higher than 5 percent. Out of these, 28 banks had a leverage ratio higher than 5 percent but less than 10 percent, and 15 banks' leverage ratios were higher than 10 percent. The distribution of the leverage ratio suggests that there is still further room for the banks to improve their financial soundness in terms of this indicator.

Chart 3.24 Leverage ratio of banks



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

3.12 Internal Capital Adequacy Assessment Process (ICAAP)

Banks in Bangladesh are instructed to charge capital on the 15 different sources of risk mentioned under Pillar 2 of Basel II. To operationalize this concept, BB developed a process document titled "Process Document for Supervisory Review Process (SRP) - Supervisory Review Evaluation Process (SREP) Dialogue on ICAAP" along with a uniform reporting format to collect the information on Pillar 2 for facilitating the SRP-SREP dialogue. Under the process document, BB has instructed the banks to calculate adequate capital, above and beyond the minimum capital requirement, against residual risk, evaluation of core risk management, credit concentration risk, interest rate risk, liquidity risk, reputation risk, settlement risk, strategic risk, environmental risk and other material risks in accordance with the process document and reporting format. BB counterchecks the banks' Internal Capital Adequacy Assessment Process (ICAAP) reporting, with its concerned departments (on-site and off-site departments) sitting for the dialogue with the concerned bank. In accordance with instructions made through the SRP-SREP process document, the first-ever SRP-SREP (bank-to-BB) dialogue under SRP of Basel II was initiated in 2011. After the first round dialogue with 10 banks, the SREP team felt the necessity for an overall revision of the process document through incorporating the findings of the reporting of banks, BB's inspection reports on banks' ICAAP document, and the dialogues. The dialogues found inadequacy in understanding and awareness of board and senior management on the approach of comprehensive risk management in banks. They also led to the suggestions of taking an integrated and coordinated approach to the enterprise-wide risk management in banks, and developing and involving the required level of high quality human resources in risk management of banks. The revision of this process document has already been completed and the banks are instructed to submit their information according to the revised version of the 'Process Document for SRP-SREP Dialogue on ICAAP'. For now, banks in Bangladesh are currently maintaining the regulatory minimum capital requirement of Basel II (10 percent of RWA) or a minimum absolute amount of BDT 4 billion, whichever is higher, and are not as such required to maintain additional capital. However, the SRP-SREP dialogue may help the banks realize the need for additional capital, considering all the material risks covered under the SRP.

3.13 Banking sector liquidity

Liquidity stress was a burning issue throughout the year 2011 but from the beginning of 2012 it is easing down due to the fact that credit growth has decreased due to various prudential stances of BB. BB is currently measuring the advance to deposit ratio (ADR)[13] 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

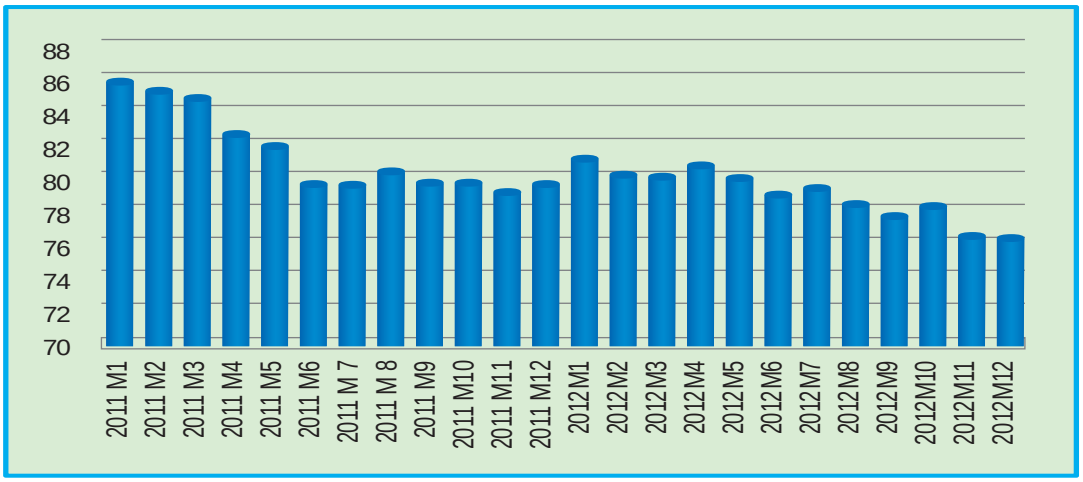
[13] ADR is the ratio of total advance to total deposit where advance comprises of all banking advance except interbank advances and inland and foreign bill purchases when these bills are funded.

funds to provide loans and invest in debt and 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, analysing 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 Shariah 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 76.6 percent in December 2012. This dropping of ADR was due to the fact that the growth in deposits was higher than that of credit in 2012. Banking sector deposit and credit growth were 22.4 percent and 20.4 percent respectively in 2012. It is worth mentioning that the decreasing trend of ADR began from early 2011 when it slid from 86 percent in January, 2011 to around 78 percent in December, 2011.

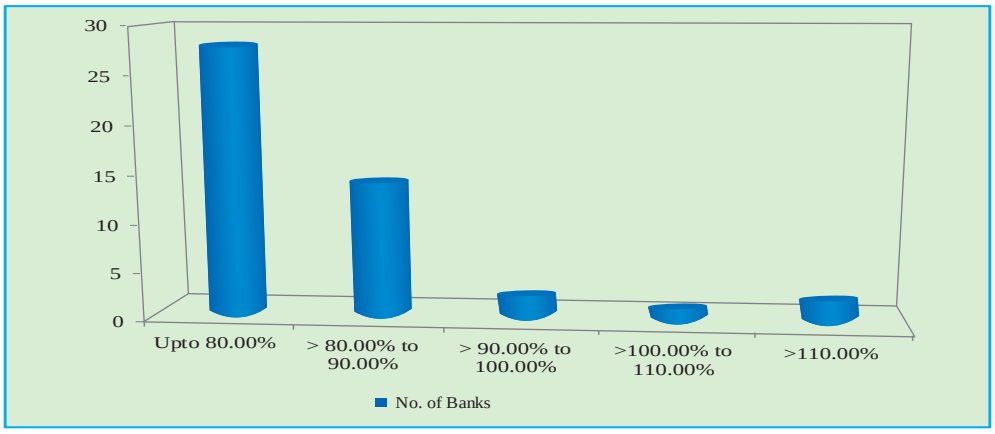
Chart 3.25 Banking sector monthly ADR during 2011-12



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

It is noteworthy that the interbank money market faced liquidity stress throughout the CY 11 and the banking sector ADR demonstrated a surge at the beginning of CY11. That was due to high government borrowings and a slower rate of increase in savings from the households due to high inflationary pressure. However, activities quickly returned to a business-as-usual situation with supportive measures taken by the BB and prudent policies of the financial institutions. The stress was released in 2012 as more banks improved their ADR and the borrowing from call money market decreases. But the banks need to monitor their asset-liability mismatch closely while making financing decisions.

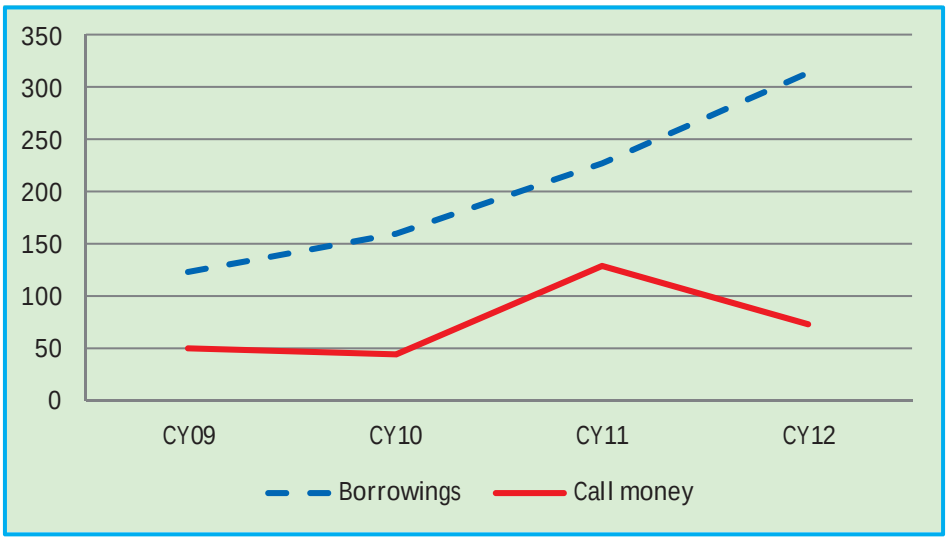
Chart 3.26 Banking sector credit-deposit ratio: end-December 2012



Source: Data: Various issues of Schedule Bank Statistics, BB; Computation: FSD, BB.

The data on ADR of individual banks reveal that the ADRs of 42 banks were lower than 90 percent, and the remaining had more than 90 percent in 2012. However, in 2011, the ADRs of 13 banks were within 80 percent, 19 banks were between 80-90 percent, 8 banks were between 90-100 percent, 3 banks were between 100-110 percent and 4 banks were above 110 percent. In 2012 more banks were able to bring down their ADR within the limit set by Bangladesh Bank.

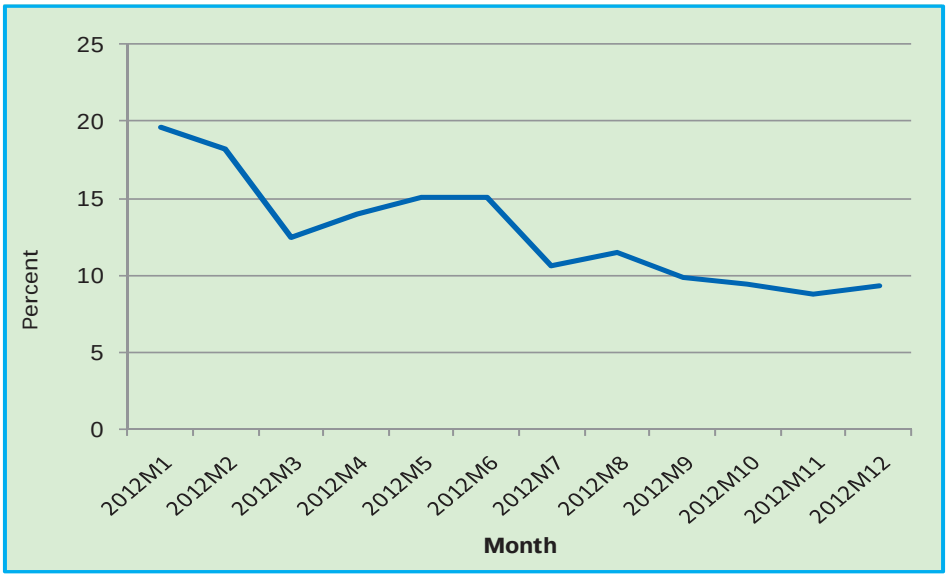
Chart 3.27 Banking sector call money investment & borrowings



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

The overall ADR at end-December 2012 arrived at a stable and acceptable position which indicates the banks were able to ease down from their condition of liquidity stress and this is supported by the decrease in call money borrowing both in volume (56 billion) and in percentage (44%). This indicates banks have improved their liquidity condition in 2012 compared with that of 2011.

Chart 3.28 Banking sector call money borrowings rate



Source: Data: Economic Trends, July 2012, BB; Computation: FSD, BB.

The BB monetary stance[14] pursued a restricted monetary growth path in 2012 through raising policy rates[15] by 50 basis points to curb inflationary and external pressure while ensuring adequate private sector credit to stimulate inclusive growth. BB, at the same time, rigorously monitored ADR to retain that at a comfortable zone to avoid any adverse liquidity condition in the banking system. The comfortable zone can be maintained by rigorously monitoring banks in their submissions of the structural liquidity profile, instructing banks to keep their ADR up to recommended levels and keeping the loan growth lower than the deposit growth of the banks.In addition, a new emphasis has been placed by the on-site examination function of BB on the adequacy of liquidity management by the banks, focusing on the tools used and the attentiveness of senior management and the Board.

The Statutory Liquidity Requirement (SLR) for conventional scheduled banks (except specialized banks) was 19.0 percent and for Islamic banks was 11.5 percent as of end-December 2012. Total SLR maintained by the banking sector was BDT 1376.0 billion against a requirement of BDT 870.6 billion, showing an excess of BDT 505.4 billion as of end-December 2012. Three specialized banks were exempted from maintaining SLR. The average SLR maintained in 2012 by the banking sector was 26.3 percent of total demand & time liabilities where it was 30.3 percent in 2011.

BB, in general, persuaded to maintain ADR of banks no higher than 85 percent for conventional banks and no higher than 90 percent for Shariah banks, taking into consideration of their loanable funds after maintaining SLR of 19.0 percent and 11.5 percent respectively. (The additional gap is considered to be financed from the capital that is retained as free.) However, too low an ADR may indicate the inefficiency of the banks to use the funds, or

[14]For details, refer to Monetary Policy Statements, January-June 2012 and July-December 2012.

[15] Bangladesh Bank Repo and Reverse Repo rate has been changed to 7.75 percent and 5.75 percent respectively from 8 January 2012.

simply a lack of profitable investment opportunities. In some cases, banks keep a low ADR deliberately when a large portion of deposit is contributed by top three or five depositors. But an ADR above 100 percent is alarming and banks with high ADR ratios might rush to the call money market and to borrow at a higher cost to continue the business operation. This may cause a liquidity stress in the call money market too.

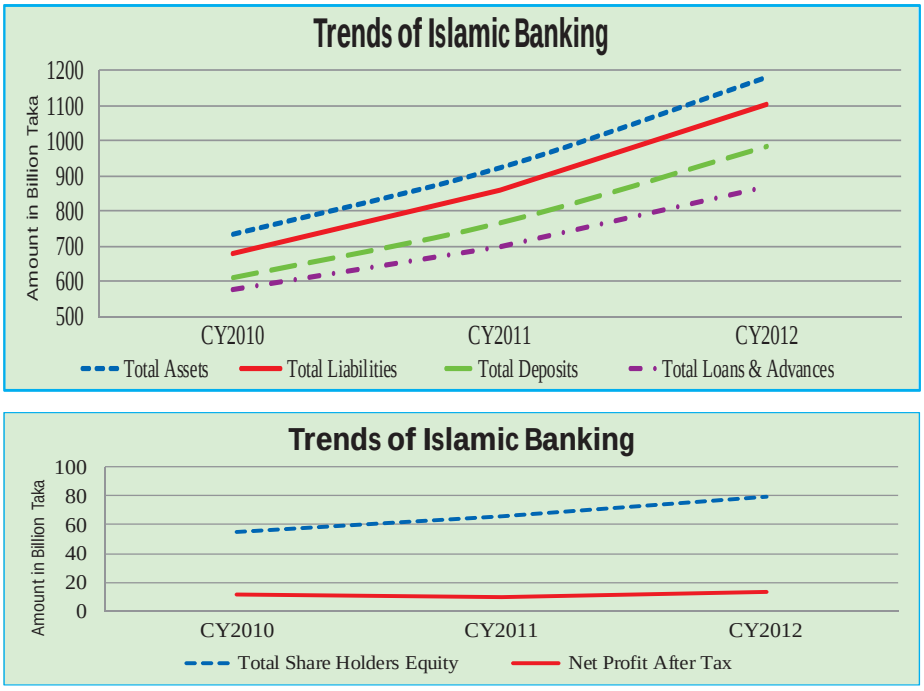
3. 14 Islamic banking

Islamic banks, i.e., Shariah banks have been operating in Bangladesh for three decades alongside with the traditional banks. Islamic 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.Islami Bank Bangladesh Limited is the first bank that introduced commercial banking based on Islamic Shariah with foreign shareholding in Bangladesh in 1983. Since then Islamic banking has been growing progressively together with the conventional banks. Currently, 7 banks are operating as full-fledged Islamic banks with 750 branches, and 9 conventional banks are offering Islamic banking through setting up of 20 Islamic banking branches and 8 more conventional banks are doing so with 30 Islamic banking windows. Islamic banks are now focusing on a wider horizon, encompassing not only the conventional Shariah products but also involved with SMEs and microfinance and financing in agriculture sectors.

3.14.1 Growth of Islamic banking

Islamic banks in the banking sector showed a remarkable growth in CY12 in terms of total assets, total liabilities, total deposits and total loans and advances.

Chart 3.29 Growth of Islamic banking: end-December



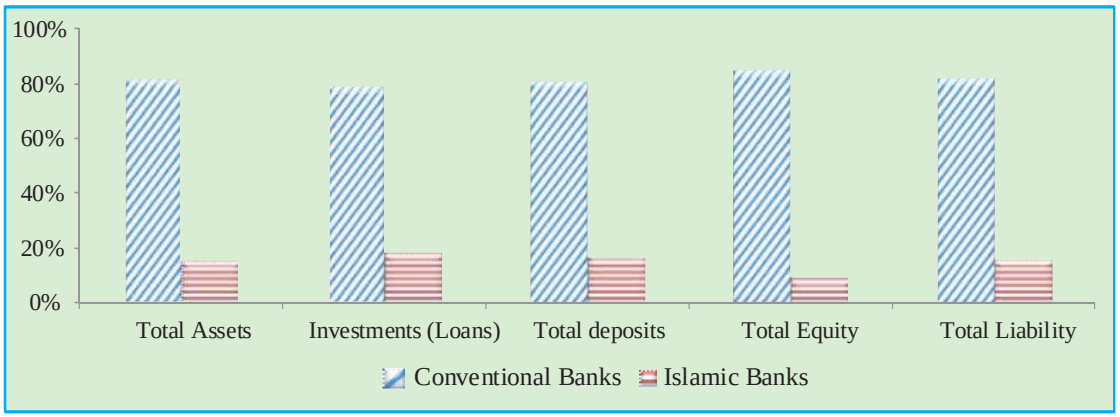
Note: Excluding Islamic banking branches/windows of conventional banks.
Source: Data: DOS, BB; Computation: FSD, BB.

Investments and advances are 73.7 percent of total assets and deposits and other accounts comprise 90.3 percent of total liabilities. As a result, Islamic banks' asset base grew by 28.3 percent as investments(loan and advances) grew by 25 percent; and similarly the liability base has grown by 28.6 percent due to the increment of 22.9 percent of deposits in CY12 compared with CY11. Besides, net profit also showed a growth of 39.0 percent in CY12 compared with CY11. While conventional banks suffered declining profitability in 2012, especially near the end of the year, Shariah banks showed their prudence and efficiency in managing assets and attaining profits, bucking the trend of increasing NPLs in the banking system.

3.14.2 Market share of Islamic banks

Although the Islamic banking industry is growing faster than the conventional banks, Shariah 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 16.85 percent in assets, 19.85 percent in investments (loans), 18.33 percent in deposits, 14.3 percent in equity and 17.1 percent in liabilities as of end December 2012. Moving on the compositions of liabilities, the share of deposits in total liabilities of 91.2 percent indicates that even more than conventional banking, deposits was the main source of financing the assets of Islamic banking.

Chart 3.30 Market share of Islamic banks and the banking sector in CY12

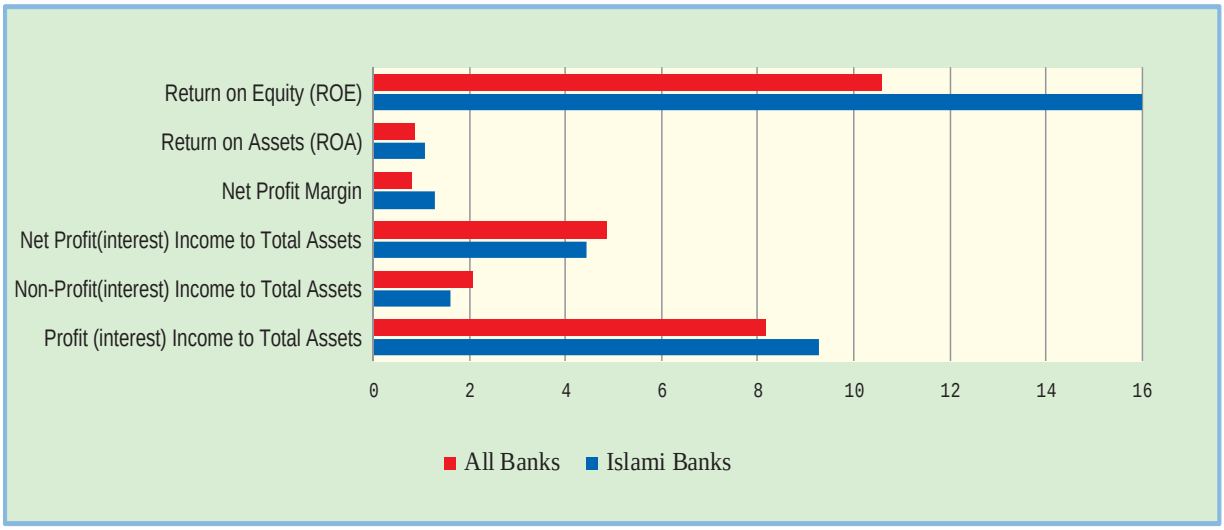


Source: Data: DOS, BB; Computation: FSD, BB.

3.14.3 Profitability of Islamic banks

The key financial indicators reflect a healthy financial position and intense potential for future expansion of Shariah banks in Bangladesh. Islamic banks managed healthy earnings in the form of profit income, which is the major component to their profitability.

Chart 3.31 Selected income ratios of Islamic banks & the banking sector



Net profit margin = net profit income/ Gross earning assets

Gross earning assets = Balance with other banks & FIs + Investment in securities + Loans & advances

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

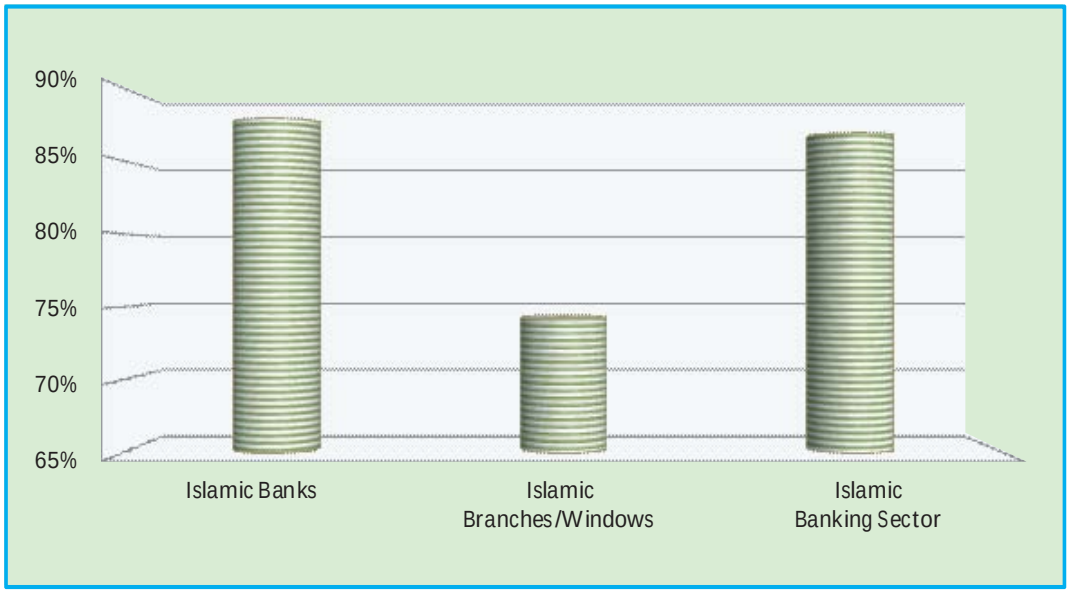
During CY12, Islamic banks contributed 23.12 percent of profit to the industry. The profit income[16] to total assets ratio of Islamic banks reached 9.74 percent, which is higher than that of the industry average of 8.14 percent. On the other hand, the non-profit income to total assets ratio was only 1.4 percent as compared to the industrial average of 2.03 percent, representing comparatively lower income from off-balance sheet (OBS) transactions. The ROA of the Islamic banking industry is higher at 1.13 compared with the overall banking industry of 0.84 in CY12, indicating better quality assets under possession of Shariah banks and earning more from the same amount of assets than the conventional banks. The ROE of Islamic banking industry, on the other hand, stands at 16.81 percent, which is higher than that of the overall banking industry ROE of 10.56 percent in CY12 indicating the earnings of Islamic banks become higher compared to their equity position. However, part of it may be due to the negative equity[17] of an Islamic bank which has been operating under the restructuring program of Bangladesh Bank. Non performing investment, i.e., the ratio of classified investment to total investment of Islamic banks is only 3.9 percent, whereas for the conventional banks it is 10.0 percent. Classified investment to total capital for Islamic banks is 43%, while it is 76% for conventional banks. These indicators may show better investment management by the Islamic banks in Bangladesh.

[16]For Islamic Shariah based banks profit income means income (interest) from investment (loans and advances).
[17]Since the negative equity proportionately reduced the total equity of the Islamic banks more than that of industry.

3.14.4 Islamic banks' liquidity

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

Chart 3.32 IDR (CDR) of Islamic banking & the overall banking sector as on December 2012



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

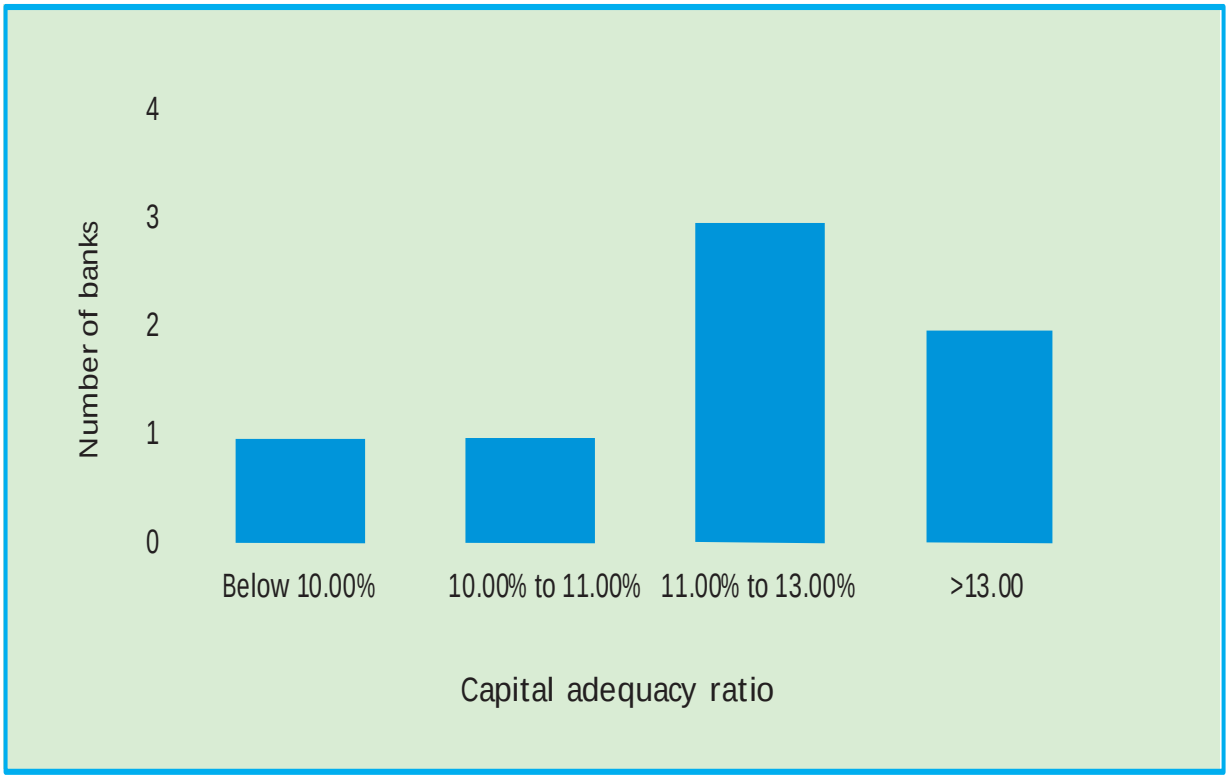
The Investment-Deposit Ratio (IDR) of full-fledged Islamic banks is 86.7 percent as of end-December 2012, a slight lowering from 90.9 percent at the end December 2011 and somewhat below the recommended maximum level of 90 percent. However, the IDR of conventional banks having Islamic banking branches/windows reached only to 74.2 percent as of end-December 2012, a fall from 81.4 percent as on end-December 2011. Since there are limited sources of Shariah-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.

3.14.5 Islamic banks' capital adequacy

Given the minimum capital requirement (MCR) of 10 percent under the Basel-II accord for CY12, the significantly higher CARs of 6 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 the bank, before transferring to the current ownership, was under a restructuring scheme of Bangladesh Bank in 2007 for the interest of depositors and ensuring proper management and corporate governance in the bank and maintaining public confidence on the banking system.

Chart 3.33 Capital adequacy ratio of Islamic banks



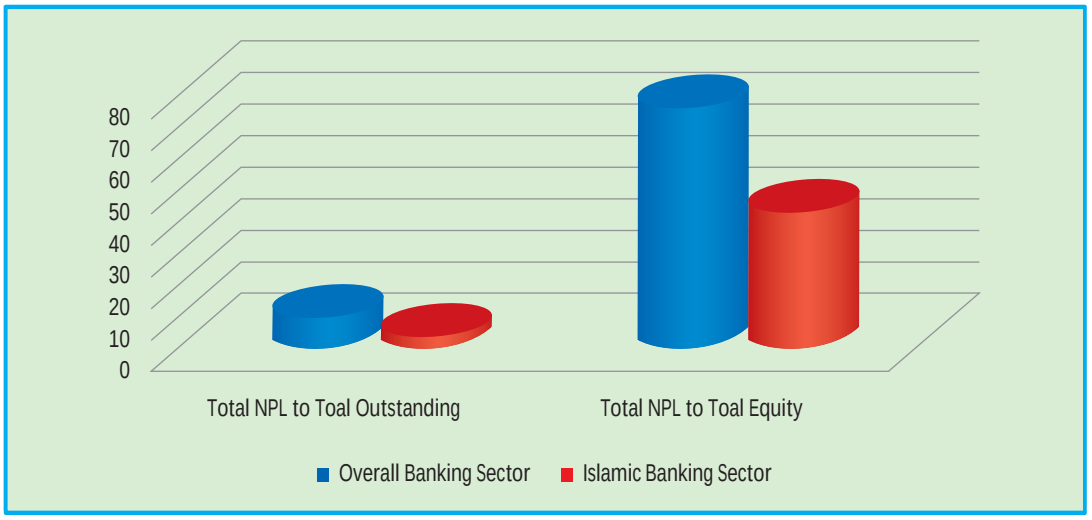
Note: Excluding Islamic banking branches/windows of conventional bank

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

3.14.6 Classified investment of Islamic banks

Islamic banks' classified investments to total investments ratio of 3.9 percent showed a relatively better position as compared with 10.0 percent for the overall banking industry in CY12. The classified investment to capital ratio of 43.5 percent for Islamic banks as compared with 76.0 percent for the overall banking industry indicates that the onslaught of classified investments (loans) hit the conventional banks harder than the Islamic banks in CY12.

Chart 3.34 Classified investment (loans) of Islamic banks and the banking industry in CY12



Note: Excluding Islamic banking branches/windows of conventional banks

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

In 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 give secondary protection to the bank, in addition to its book capital. They also tend to be more conservative (resulting in less moral hazard and risk taking) for providing a stable and competitive return to investors, the shareholders' responsibility for negligence or misconduct (operational risk), and given the more difficult access to liquidity. Furthermore, in absence of typical deposit insurance, investors (depositors) share in the risks give them more incentives to exercise tight oversight over bank management.[18] However, depositors of Islamic banks in Bangladesh are covered by insurance just as depositors in the conventional banks.

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 a Shariah vehicle but, these new products necessitate maintaining close monitoring so that no adverse shocks can arise from their expanding horizons.

[18]Martin Èihák and Heiko Hesse, Islamic Banks and Financial Stability: An Empirical Analysis, IMF Working Paper, WP/08/16. January 2008

Chapter 4

Banking Sector Risks

4.1 Credit risk structure in Bangladesh

Lending is the prime business activity for the banks and the loan portfolio is typically a bank's largest asset category and its main source of revenue. Thus, credit risk is the single largest factor affecting the soundness of banks and the banking system as a whole. Credit risk arises due to default of a borrower, and it may arise from either an inability or an unwillingness to perform the commitment of the loan contract.

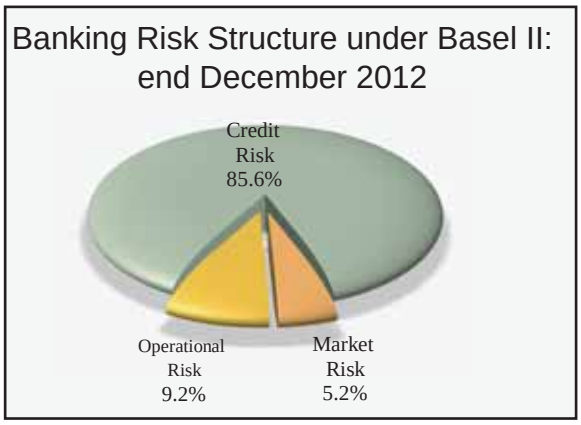
Analyses of banking industry data, at the end December 2012, indicate that the share of risk weighted assets (RWA) assigned to credit risk was 86 percent of the total RWA of the banking system, whereas the RWA associated with market risk and operational risk were only 5 and 9 percent respectively. RWA for credit risk as ratio of total RWA has increased by 1 percentage point compared to that of the previous year, while market risk to total RWA has declined by 1 percentage point. However, the share of operational risk has remained unchanged compared to that of the previous year. While credit risk increased because of higher credit growth, market risk declined due to a reduction in the prices of equity instruments. The capital adequacy ratio of the banking sector stood at 10.5 percent, which was 89 basis points lower than that of the previous year. This decline in capital adequacy ratio could partly be attributed to an increase in required provisions (which lowers the numerator) and an increase in RWA (which increases the denominator) of banks. In monetary terms, the banks' RWA for credit risks was BDT 4458.2 billion, while the same for market and operational risks were BDT 268.0 and BDT 476.8 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 less than half, both declined somewhat from the previous year. This risk is mostly concentrated in the banking book.

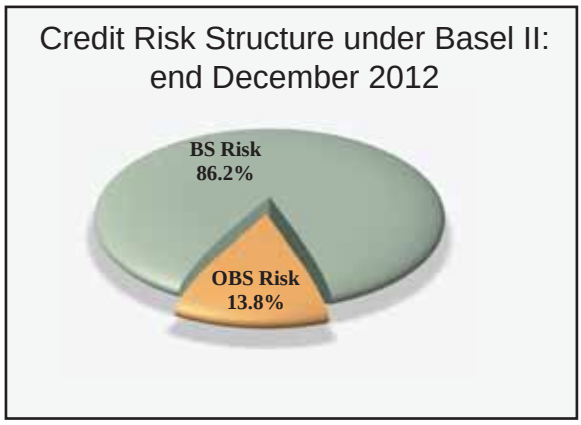
Table 4.1 Credit risk in the banking system

Banks	Credit Risk as percentage of Industry Credit Risk	Credit risk as percentage of overall industry risk
Top 5 Banks	27.5%	23.6%
Top 10 Banks	45.2%	38.8%

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

Chart 4.1 Credit risk structure



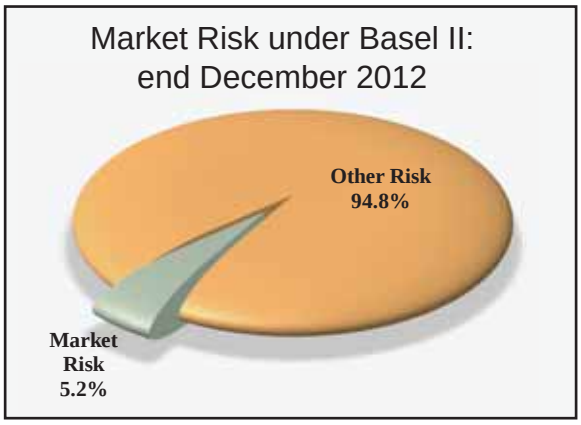


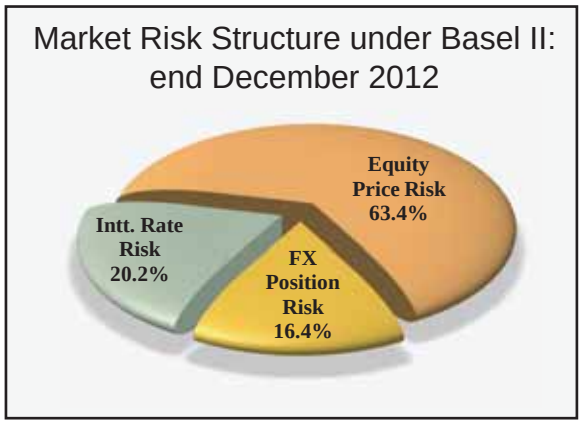
Source: Data: DOS, BB; Computation: FSD, BB.

4.2 Structure of market risk under Basel II

After securities market turbulence in 2011, market sentiment did not improve enough to expect a recovery and return to normal levels of volatility in turnover during the year 2012. As sentiment went back and forth, the market observed a high movement in turnover, mostly negative.[19] A moderate degree of volatility in domestic financial markets during CY12 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 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.

[19]Capital Market Review 2012, IDLC Investments Ltd., Eunoos Trade Centre, 52-53 Dilkusha Commercial Area, Dhaka. (January 07, 2013)

4.3 Interest rate risk

Data as of end December 2012 indicates that the share of risk weighted assets (RWA) assigned to interest rate risk (IRR) was only 1 percent of total risk weighted assets in the banking system, whereas the RWA related to overall market risk was 20.2 percent. The banks' capital charge for interest rate risk was BDT 5.4 billion at end December 2012, which was BDT 6.2 billion at end December 2011. Only 10 banks (21 percent of the industry) contained 72 percent of industry interest rate risk and the remaining 37 banks (79 percent of the industry) materially contained no or insignificant IRR. It is noteworthy that three state-owned banks and two private banks are 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 2012, displayed more IRR compared with that of the previous year. 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 dealing IRR in the banking book with 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 the primary focus of banks in Bangladesh.

Table 4.2 Interest rate risk in the banking system

Banks	Interest rate risk	Share in market risk	Share in overall risk
Top 5 Banks	45.6%	9.2%	0.5%
Top 10 Banks	72.0%	14.5%	0.7%

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

4.4 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 more than 15 percent of their regulatory capital. However, that limit converts to an amount taking into account of the mentioned ratio on a particular reference date and continues until further reviews. Data as of end December 2012 indicates that the share of RWA assigned to exchange rate risk was less than 1 percent of total risk weighted assets in the banking system, whereas it is 16.4 percent of the market risk. The banks' capital charge for exchange rate risk was BDT 4.4 billion, which was BDT 7.8 billion at end December 2011. However, only 10 banks (21 present of the industry) contained almost 70 percent of industry exchange rate risk and the remaining 37 banks (79 percent of the industry) contained the remaining 30 percent of exchange rate risk in the banking system. In particular, two state-owned banks and three private banks (including two Islamic banks) represented themselves in the top 5 positions with regard to exchange rate risk.

Table 4.3 Exchange rate risk in the banking system

Banks	Exchange rate risk	Share in market risk	Share in overall risk
Top 5 Banks	46.2%	7.6%	0.4%
Top 10 Banks	67.8%	11.1%	0.6%

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

4.5 Equity price risk

Bangladesh Bank's (BB) initiative to raise a firewall between banks and their merchant banking subsidiaries was an effort to protect the banking sector from the adverse effect of the recent stock market debacle. The rocketing of share price in the DSE and CSE in 2010 was observed without any apparent fundamental basis. In response, BB held separate meetings with the chief executives of the banks that made huge profits by investing in the stocks beyond their recommended limit. The banks survived this episode, but, vulnerability still lies with the potential for gyrating stock prices and the exposures. Put differently, 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. The Dhaka Stock Exchange (DSE) showed mixed trends in CY12, with the General Index reaching a high of 5098.9 in April and low of 4153.9 in January[20]. The daily turnover of the Dhaka Stock Exchange DSE declined from about Tk. 30 billion in December 2010 to below Tk. 1.0 billion in July 2012. Investors' confidence has also declined and remains very low.[21] As an encouraging response, banks' exposure to the stock market is also declining because of their more cautious investment plans than before and it stands at 3 percent of banks' aggregate total liabilities in December 2012[22]. It is noteworthy that the banks' investment in shares, the overall exposure of such investments, is capped by section 26(2) of the Bank Company Act, 1991. Specifically, the total holdings of banks in shares cannot exceed 10.0 percent of their total liabilities. In terms of banks' liabilities, at the end of December 2012, total holding[23] is 2.2 percent and the aggregate exposure[24] is 3 percent as against the ceiling of 10.0 percent. Bank-wise information also indicates that no bank has its exposure in excess of the 10 percent. In the proposed amendments to the Bank Company Act, 1991, the overall exposures of such investments would be capped in terms of banks' capital instead of liabilities, which, if implemented, would not result in a significant decline in the absolute exposure to the stock market[25]. Indeed the current aggregate banks' exposure as percentage of total capital is very close to the proposed limit in upcoming Bank Company (Amendment) Act, 2013, which is waiting for enactment in any of the upcoming parliament sessions in 2013. In the proposed rule, the banks' holding of shares and their exposures in capital market is capped at maximum 25.0 percent of their capital comprising of paid-up capital including share premiums and statutory reserves of a banking company.

[20]Economic Trends, March 2013, Bangladesh Bank.
[21]DrMizanurRahman, A critical view of recent capital market crisis in Bangladesh, The Financial Express, VOL 20 NO 157 REGD NO DA 1589 Dhaka, Wednesday, November 21, 2012.
[22]For details, refer to Table XXXIII.
[23]Comprises market value of banks' own portfolio (investment in shares), possessing shares under lien and under custody against margin loan.
[24]Comprises market value of banks' own portfolio (investment in shares, debentures & bonds, MFU), providing loans/guarantees to stock dealers, merchant banking and brokerage activities.
[25]For details, see Table XXXIII.

Table 4.4 Equity price risk in the banking system

Banks	Equity price risk	Share in market risk	Share in overall risk
Top 5 Banks	45.3%	28.7%	1.5%
Top 10 Banks	69.6%	44.2%	2.3%

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

Data as of end December 2012 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 63.4 percent of the market risk. The banks' capital charge for equity price risk was nearly BDT 17.0 billion at end December 2012, which was 15.2 billion at end December 2011. The top 10 banks contained 70 percent of industry equity price risk and the remaining 37 banks materially contain the remaining 30 percent risk from the movement of equity prices. However, top 10 banks, at the end December 2011, were exposed with 50 percent of industry equity price risk. It has been noticed that these top banks, at end December 2012, concentrated more risk compared with end December 2011. Moreover, it is noteworthy that three state-owned commercial banks and two private commercial banks are the ones ranked in the top 5 positions for equity price risk.

4.6 Operational risk

Developing industry practices suggest that the risks other than credit and market risk can be substantial. This class of risks is known collectively as operational risk, or the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk is not at all a new risk in financial institutions. However, it is only within the past few years that financial institutions have more focused on operational risk as a separate risk category in addition to market risk and credit risk. This is partly due to the recent development of the new Basel Accord. It is widely recognized that operational risk could even be the risk of ruin of a financial institution; such is the magnitude of possible material operational risk related events.

Confidence in individual institutions and in the system as a whole is the key in banking. Any lack of trust in banks has a pervasive effect on the whole economy, since banks are very vital institutions in financial intermediation. The Hallmark scam[26] in Bangladesh in 2012 might have impacted customers' trust in the banks. If lapses in banks' internal controls, which allowed these diversions of bank assets to take place, are repeated at many banks throughout the system, many depositors could be tempted to withdraw their deposits in fear of a collapse of the banking system. Were this sudden loss of confidence to take place, it may cause a shortage of funds in banking system and the entrepreneurs would have to obtain funds from other sources to invest in productive sectors, an inefficient practice that could result in a major economic slowdown.

[26] Identified financial irregularities in 2012 in a small bank branch of the largest state owned commercial bank revealed unauthorized loans totaling of BDT 36.06 billion (US$ 450 million) were siphoned out through fraudulent Letters of Credit, inland bills of trading, and other documents. These unauthorized loans and advances were granted with total disregard for the rules and regulations of the bank and the regulator.

The 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.

Table 4.5 Operational risk (OR) under Basel II basic indicator approach

Banks	Share in Industry OR	Share in industry overall risk
Top 5 Banks (11%)	30.6%	2.4%
Top 10 Banks (21%)	47.7%	4.4%

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

Data as of end-December 2012 indicates that the share of RWA assigned to operational risk was 9.2 percent of the total RWA of the banking system, which is 1.8 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 10.5 percent, the banks' capital charge for operational risk was BDT 4.8 billion at end December 2012. However, only 10 banks (21 percent of the industry) contained almost 48 percent of industry operational risk and the remaining 37 banks contained the remaining 52 percent of operational risk. At end-December 2012, top ten banks possessing almost the same risk sharing as at end-December 2011.

In 2012, 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 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 under Basel II, 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 database on actual loss events are, indeed, required to adopt to aggravate the challenges faced by the regulator and banks for managing such types of operational risks.

BB monitors the gravity of threats stemming from lapses in banks' internal control environments and banks were advised to follow the core risk guidelines on 'Internal Control and Compliance'in addition to imposing this capital charge for operational risk under the Basel II requirement.

4.7 Risk Mitigants

Credit ratings are a useful tool in ensuring the safety and soundness of the financial system. The standardised 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.

The SEC 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 are all operating as subsidiaries or technical partners of the other credit rating companies incorporated in different countries.

Table 4.6 Commencement of credit rating agencies in Bangladesh

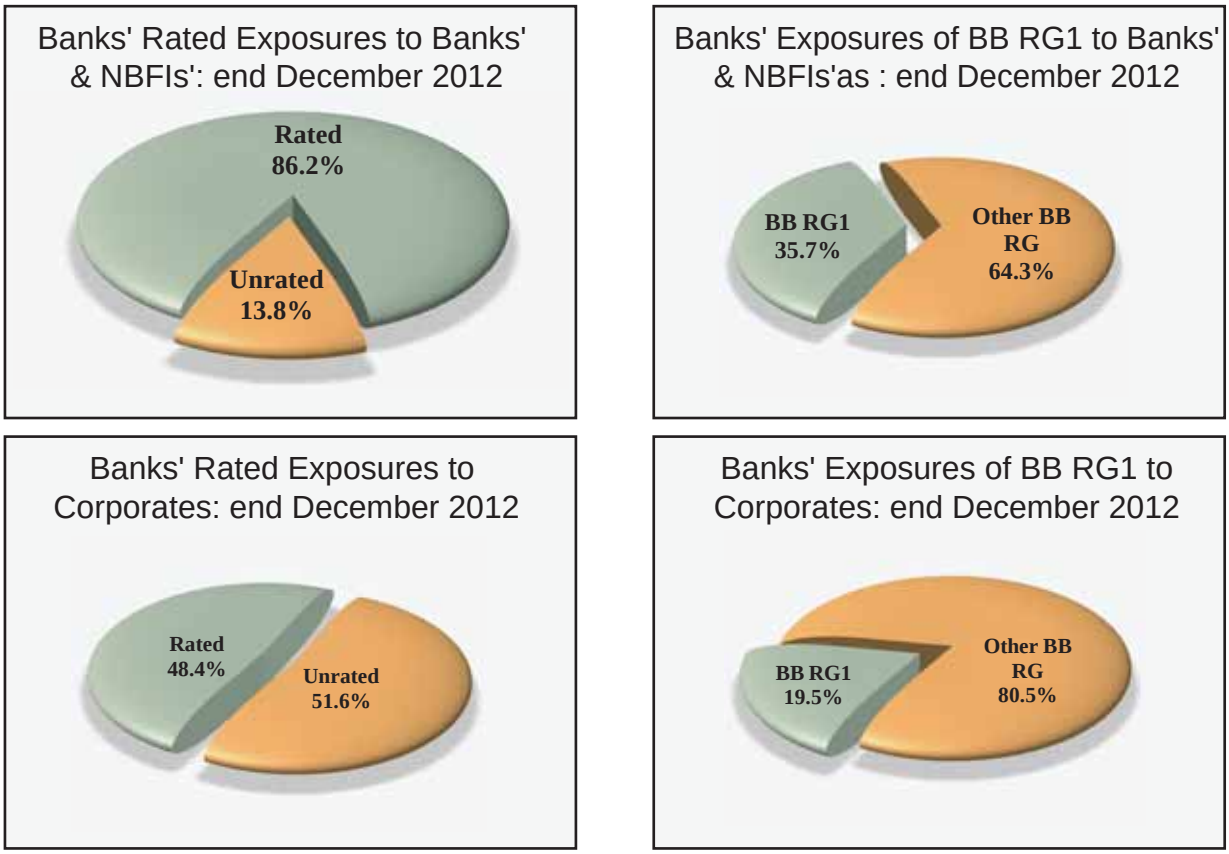
Sl. No.	Rating Companies	Subsidiary/Technical partner of
1.	Credit Rating Information and Services Ltd (CRISL)	Rating Agency Malaysia Berhad
2.	Credit Rating Agency of Bangladesh Ltd. (CRAB)	ICRA Limited of India
3.	Emerging Credit Rating Ltd. (ECRL)	Malaysian Rating Corporation Berhad
4.	National Credit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

Source: Website of the respective rating companies.

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. However, since the concept of external credit assessment is quite new and few in Bangladesh, fewer than half of nonfinancial corporate exposures have been rated, as shown in the lower left quadrant. For both financial and nonfinancial 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 a bit higher than one third of rated banks' exposures to banks and NBFIs carried the best credit rating (BB rating grade 1)[27], only one fifth of the rated corporate exposures carried the best rating.

In a broader sense, CRCs can help mitigate the fundamental information asymmetry in capital markets between investors and firms seeking external financing. Ratings can be a useful

[27]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.

mechanism to solve some principal agent problems. BB, considering the useful role in micro-prudential regulation of CRCs, is giving emphasis on increased transparency, independence of CRCs, and competition in the ratings industry. A systemic approach to regulation should move beyond CRCs to include the role of ratings in securities markets and, more broadly, in financial stability. The regulation of rated securities markets should recognize the importance for market participants to avoid relying too much on ratings in the risk assessment of their investment strategies. It should also stress the importance of opening the "black box" of rating methodology so that investors are well informed of the risks they are taking when investing in rated securities. To 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.

Although their role as a useful tool in lending and investing is generally positive, credit ratings may sometimes increase systemic risk by procyclically fueling investments in good times and accelerating market losses in bad times. Bangladesh Bank, as other central banks, uses its panoramic view of the financial system to identify system-wide vulnerabilities, including those from a sudden swelling or deteriorating of ratings. For example, CRCs can increase systemic risk through unanticipated and abrupt downgrades[28]. Such rating crises can lead to large market losses, fire sales, and a drying- up of liquidity and have knock-on effects on a number of systemically important market participants, either through contractual arrangements or investment practice.

Banks, for mitigating credit risks, accept collaterals viz. financial instruments, registered mortgage on land and building and hypothecation of inventories, receivables and machineries, motor vehicles, etc. Housing loans are secured by the property/ asset being financed. Banks accept guarantees from individuals with considerable net worth and the guarantees from corporates, government, and commercial banks in line with BB guidelines[29]. However, the bank recognizes specified types of financial collateral for getting capital relief as advised in 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 level physically verify the collateral offered and justify the valuation of professionals. Subsequently entire documents of the collateral are checked and vetted both by banks enlisted lawyers and credit division to ensures clean title and enforceability of the collateral.Totalvalue of the collateral held against their finance, at the end December 2012, in the banking system was BDT 409.7 billion. The enforcement of the liquidation of the accepted collaterals, however, will depend on the correctness of their titles and their physical existence. However, BB, through its process document of SRP-SREP dialogue on ICAAP under Pillar 2 of Basel II, instructed banks to send their relevant information of accepted collaterals as recommended on a regular basis.

[28]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.

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

Table 4.7 One year Transition Matrix (2011-2012)[30]

From Rating*	To 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.

Source: Data: Banking Regulation and Policy Department; Calculation: Financial Stability Department.

It has been observed in 2012, from the transition matrix (rating migrations), that highly rated entities (BB rating grades 1 and 2) have retained their grading in most cases. But entities with lower grading (BB rating grade 3 and 4) experienced movements in both sides with respect to their 2011 rating. It can be inferred that the rating that is offered by the different rating agencies in Bangladesh are almost stable for most entities. It also indicates that the corporate ratings are 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, possess any immediate threat to maintaining financial stability in Bangladesh. However, the stability of ratings does not necessarily mean they are accurate. Market participants do not want ratings that simply track market-based measures of credit risk; rather it would 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.

[30]Analyses considered the entity-wise long-term rating under surveillance category comparing with 4th quarter data of 2011 and 2012 of 130 ratings of CRAB, ECRL and NCRL.

Chapter 5

Stress Testing

5.1 Introduction

To assess the resilience of the banking sector to systemic risks, Bangladesh Bank (BB) monitors the stress tests conducted by the banks. BB also conducts such stress tests on the banking sector to assess vulnerabilities in the banking sector as a whole and illustrates the impact of key risk factors on banks' capital adequacy.

Different level of shocks relating to credit, interest rate, foreign exchange rate, equity price and liquidity risk, and their impacts on the capital adequacy ratio (CAR), are considered to assess the impact of distress conditions in the banking sector. Under each scenario, the after-shock CAR is compared with the minimum regulatory requirement,which is 10 percent of banks' risk weighted assets[31]. Banking sector data reveal that out of 47 scheduled banks, 3 banks are undercapitalized and 3 banks have a negative CAR due to cumulative loss and provision shortfall as of December 2012. The remaining 41 banks have met the minimum regulatory capital adequacy requirement.

5.2 Credit risk

Different tests for credit risk have been conducted to assess the impact on banks' capital. The ratio of NPL[32] 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-NPL Ratio as on 31 December 2012

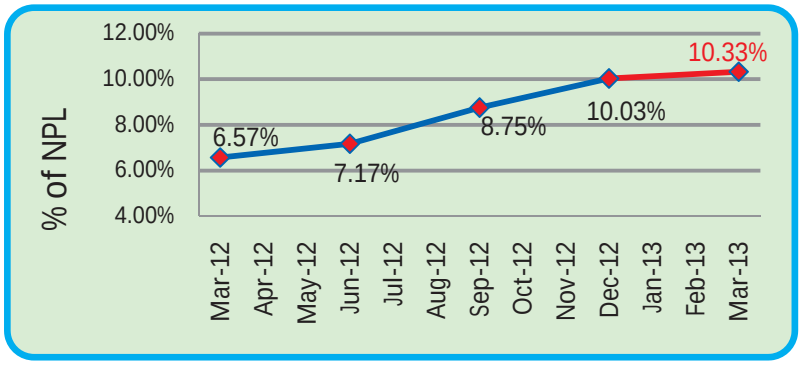
(Percent)

Scenarios	Required Minimum CAR	Maintained CAR	Gross NPL Ratio
Baseline:*Banking System*	10.00	10.46	10.03
Stress Scenarios:			
Shock-1: NPL increase by 3%	10.00	9.45	10.33
Shock-2: NPL increase by 9%		8.38	10.93
Shock-3: NPL increase by 15%		5.28	11.53

Source: Financial Stability Department, BB.

[31]The results are based on the unaudited data for CY12.
[32]NPL (Non-performing loan) means loan classified as either substandard or doubtful or bad/loss category.

Chart 5.1 NPL Ratio under Minor Shock Scenario



Source: Financial Stability Department, BB.

The ***first test*** applies a uniform shock to the baseline level of performing loans so that a certain portion thereof becomes non-performing. In figure 5.1, historical gross NPL ratios of 4 quarters during CY12 have been illustrated with a blue line and the red line shows the stressed scenario. Under the minor shock situation, the banking sector gross NPL ratio will be increased to 10.33 percent from the current level of 10.03 percent. Consequently, the banking sector CAR will be decreased to 9.45 percent. The results also reveal that 8 of the 41 banks will become undercapitalized, although CAR for 9 of the remaining banks will also be decreased by 1.0 percent or more.

Table 5.2 Stress Tests-Credit Risk-Default by Largest Borrowers as on 31 December 2012

(Percent)

Scenarios	Required Minimum CAR	Maintained CAR
Baseline:*Banking System*	10.00	10.46
Stress Scenarios:		**CAR after Shock**
Shock-1:3 largest borrowers		6.96
Shock-2: 7 largest borrowers		4.69
Shock-3:10 largest borrowers		3.50

Source: Financial Stability Department, BB.

The ***second test*** has been done to establish the effect of default by the large borrowers for each bank. Increasing the number of defaulting large borrowers to 3 will lead 24 of the 41 banks to become undercapitalized. The CAR for 8 of the remaining banks will also be decreased by 1.0 percent or more.

Table 5. 3 Stress Tests-Credit Risk-Increase in NPLs in Particular Sector as on 31 December 2012

(Percent)

Scenarios	Required Minimum CAR	Maintained CAR
Baseline:*Banking System*	10.00	10.46
Stress Scenarios:		**CAR after Shock**
Shock-1: 3% of performing loans directly downgraded to non-performing (bad/loss)		10.41
Shock-2: 9% of performing loans directly downgraded to non-performing (bad/loss)		10.30
Shock-3: 15% of performing loans directly downgraded to non-performing (bad/loss)		10.19

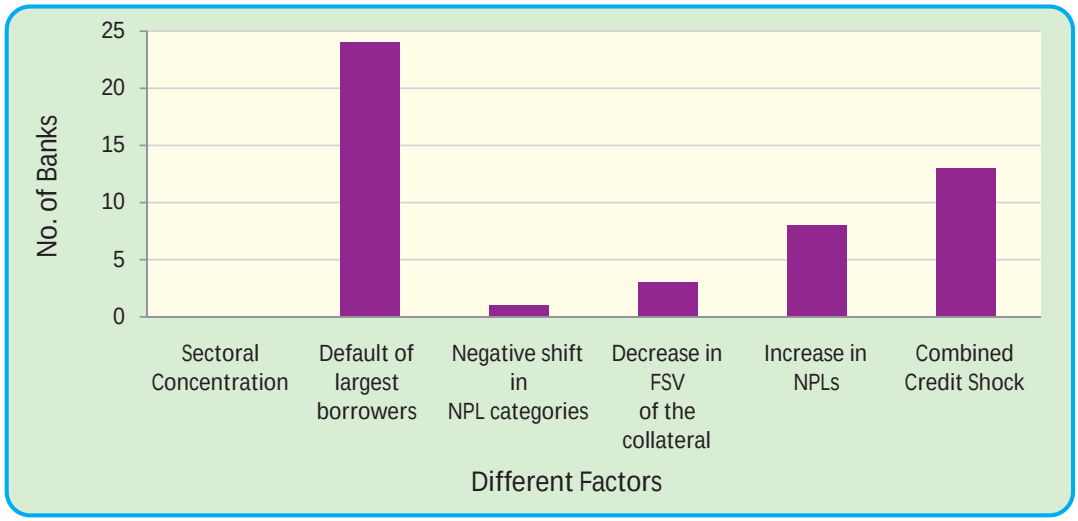
Source: Financial Stability Department, BB.

The ***third test*** has shocked performing loans to selected business sectors such as agriculture, trade service, readymade garments (RMG), textiles, real estate (residential and commercial), ship building and breaking, construction, power & gas, transport, storage, communication, capital market, consumer and other manufacturing units. December 2012 data reveal that the trade service sector has the highest exposure (15.77 percent of the total loans). From a risk standpoint, however, the impact is minimal. If an additional 3 percent of this single sector's loans become non-performing (bad/loss), then the banking sector CAR will be decreased to 10.41 percent which will still remain above the minimum regulatory limit. Therefore, sector concentrations of loans, under a minor shock, do not have a significant impact on capital.

The ***fourth test*** deals with the fall in the forced sale value (FSV) of mortgaged collateral against loans. The mortgaged collateral is given shocks of 10, 20 and 40 percent decline in the FSV for all the three scenarios respectively. The result due to the minor shock reveals that 3 of the 41 banks will become undercapitalized.

The ***fifth test*** assumes that negative shifts in the existing NPL categories take place 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) are 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 are downgraded to substandard, 5 percent of the substandard are downgraded to doubtful, and 5 percent of the doubtful are downgraded to the bad/loss category. The result due to minor shock reveals that only 1 bank out of 41 will become undercapitalized.

Chart 5.2 Stress Test-Credit Risk-Different 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 December 2012, 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, 24 banks will

become undercapitalized. Due to an increase in NPL, 8 banks will fall short of requirements, and due to a combined credit shock 13 banks will become undercapitalized. In summary, it is important to note that the performance of largest borrowers will have the highest impact on the banks' soundness.

5.3 Liquidity risk

A liquidity stress test has been conducted to determine the impact of a sudden withdrawal of deposits on banks' liquidity. 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 bank). Liquidity stress test considers chronic withdrawal of demand and time deposits both in local and foreign currency. A bank is considered to be well liquid if it can survive (after maintaining SLR)[33] up to 5 consecutive days under stress situation. Standard shocks are 2, 4 and 6 percent respectively which are given on in excess of bank's normal withdrawal.[34] However, Withdrawal is adjusted with available liquid assets (excluding SLR).

Table 5.4 Stress Tests-Banking Sector Liquidity Risk as on 31 December 2012

Liquidity Stress: Consecutive 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	Liquid or not (1=Yes, 0=Not)	1	1	1
Day:3	Liquid or not (1=Yes, 0=Not)	1	1	1
Day:4	Liquid or not (1=Yes, 0=Not)	1	1	1
Day:5	Liquid or not (1=Yes, 0=Not)	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.

5.4 Market risk

The banking industry is 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 will be impacted much under the overall market risk shocks except for 1 bank due to interest rate and 2 banks due to equity price shock.

[33]SLR= Statutory Liquidity Requirement
[34]Withdrawal means only deposit outflow

Table 5.5 Stress Tests-Interest Rate Risk as on 31 December 2012

(Percent)

Scenarios	Required Minimum CAR	Maintained CAR	CAR after Shock
Baseline:*Banking System*	10.00	10.46	-
Stress Scenarios:			
Shock-1:1% increase in interest rate	10.00	10.46	10.47
Shock-2:2% increase in interest rate			10.48
Shock-3: 3% increase in interest rate			10.49

Source: Financial Stability Department, BB.

Table 5. 6 Stress Tests-Exchange Rate Risk as on 31 December 2012

(Percent)

Scenarios	Regulatory CAR	Maintained CAR	CAR after Shock
Baseline: *Banking System*	10.00	10.46	-
Stress Scenarios:			
Shock-1: Currency appreciation/depreciation by 5%	10.00	10.46	10.44
Shock-2: Currency appreciation/depreciation by 10%			10.41
Shock-3: Currency appreciation/depreciation by 15%			10.39

Source: Financial Stability Department, BB.

Table 5.7 Stress Tests-Equity Price Risk as on Data: 31 December 2012

(Percent)

Scenarios	Regulatory CAR	Maintained CAR	CAR after Shock
Baseline:*Banking System*	10.00	10.46	-
Stress Scenarios:			
Shock-1: Fall in the equity prices by 10%	10.00	10.46	10.25
Shock-2: Fall in the equity prices by 20%			10.04
Shock-3: Fall in the equity prices by 40%			9.61

Source: Financial Stability Department, BB.

5.5 Conclusion

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. Considering this, BB is taking initiatives for further development of its present stress testing framework.

Chapter 6

Non-Bank Financial Institutions

6.1 Introduction

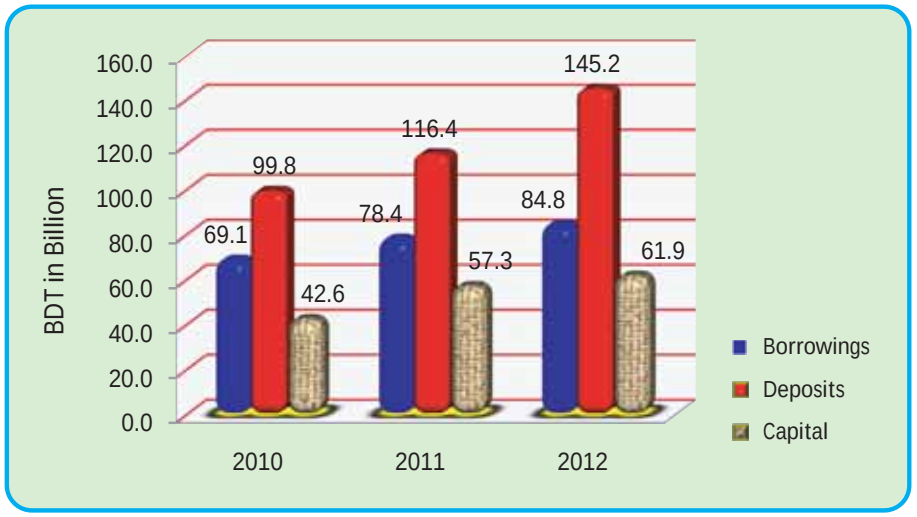
Non-Bank Financial Institutions (NBFIs) are licensed and regulated under the Financial Institutions Act, 1993. The NBFI sector in Bangladesh plays an important role in financing various sectors like manufacturing and service industry, trade, housing, transport, information and communication technology, and the capital market. 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 2012, 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 169 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



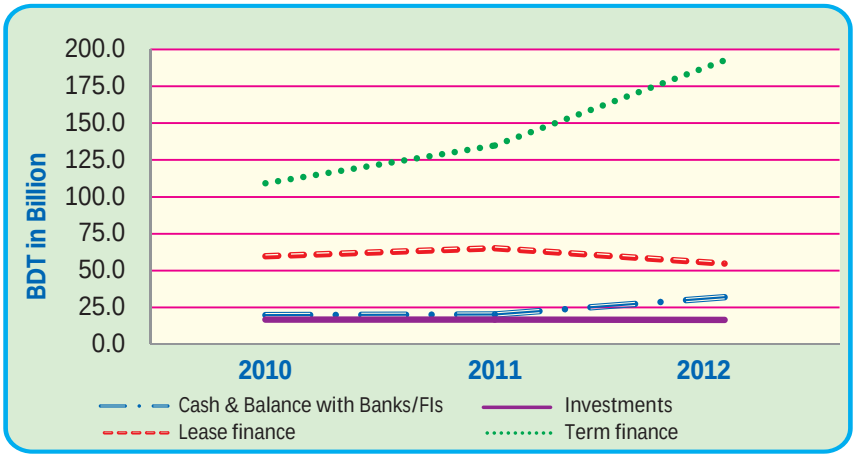
Source:Department of Financial Institutions & Markets, BB.

The borrowings, deposits and capital of NBFIs increased by 8.1 percent, 24.8 percent and 8.0 percent respectively in CY12 compared with those of the previous year. The trend of increasing capital shows a healthy financial base of the NBFIs.

6.3 Assets composition

NBFIs' total assets increased by 18.2 percent in CY12 compared to that in CY11. The size of the total assets of this sector represented 3.6 percent of GDP (current prices) and 4.6 percent of the total assets of the overall banking sector in CY12.

Chart 6.2 NBFIs' financing trend



Source: Department of Financial Institutions & Markets, BB.

The major portion of NBFIs' funds was deployed in term financing, which was 59.0 percent of total assets in CY12. The volume of term financing increased by 42.9 percent, however, lease financing decreased by 15.8 percent in CY12 compared to that of CY11. Lease finance, investments, cash and balance with banks/FIs, and other assets (including fixed assets) comprised 16.8 percent, 4.9 percent, 9.8 percent, and 9.4 percent respectively of total assets in CY12.

Box 6.1 NBFIs' sector-wise loans & leases composition (CY12)

(BDT in Billion)

Sl.	Sector	Amount	Percent	HHI*
1	Trade & Commerce	28.3	11	121
2	Garments & Knitwear	11.3	4	16
3	Textile	13.6	5	25
4	Jute & Jute-Products	0.7	0	0
5	Food Production & Processing Industry	8.8	4	16
6	Plastic Industry	1.6	1	1
7	Leather & Leather-Goods	0.3	0	0
8	Iron, Steel & Engineering	8.8	4	16
9	Pharmaceuticals & Chemicals	7.5	3	9
10	Cement & Allied Industry	2.3	1	1
11	Telecommunication & Information Technology	4.7	2	4
12	Paper, Printing & Packaging	4.3	2	4
13	Glass, Glassware & Ceramic Industry	1.2	0	0
14	Ship Manufacturing Industry	3.9	2	4
15	Electronics & Electrical Products	1.8	1	1
16	Power, Gas, Water & Sanitary Service	5.0	2	4
17	Transport & Aviation	10.7	4	16
18	Agriculture	3.6	1	1
19	Housing	44.2	18	324
20	Merchant Banking	12.9	5	25
21	Margin Loan	11.2	4	16
22	Others	64.8	26	676
	Total	**251.53**	**100**	**1,280**

*HHI = Herfindahl-Hirschman Index

The calculated Herfindahl-Hirschman Index (HHI) indicates that NBFIs' loans and leases were moderately concentrated (1000-1800 points) during CY12. The housing sector, in particular, comprises 18 percent of total loans and leases followed by trade and commerce with a share of 11 percent.

6.4 Asset quality

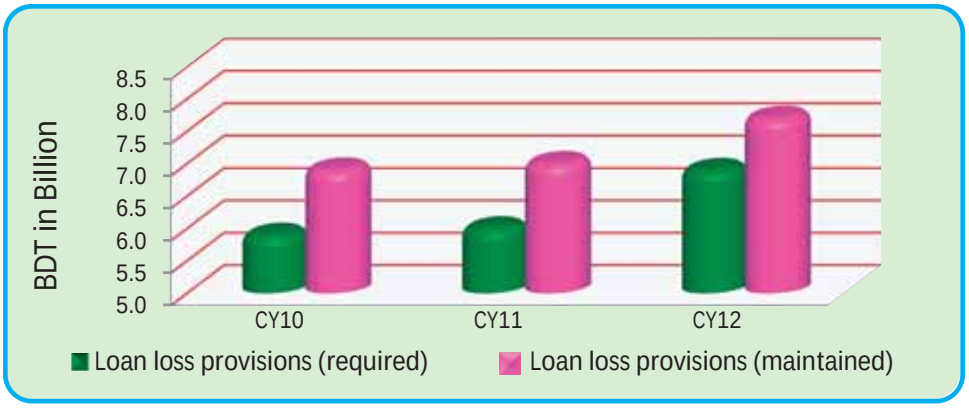
NBFIs reported deterioration in asset quality in CY12. Classified loans and leases increased by 33.0 percent or BDT 3.4 billion in CY12 compared with the previous year. The ratio of classified loans and leases to total loans and leases represented 5.5 percent, up from 4.9 percent recorded in CY11.

Chart 6.3 NBFIs' classified loans and leases trend

Source: Department of Financial Institutions & Markets, BB.

Due to worsening asset portfolio quality, NBFIs endured higher provisioning costs and weaker financial results. During CY12 an amount of BDT 7.7 billion loan loss provisions was maintained against a requirement of BDT 6.9 billion, a coverage ratio of 56.3 percent of classified loans and leases.

Chart 6.4 NBFIs' loan loss provisioning

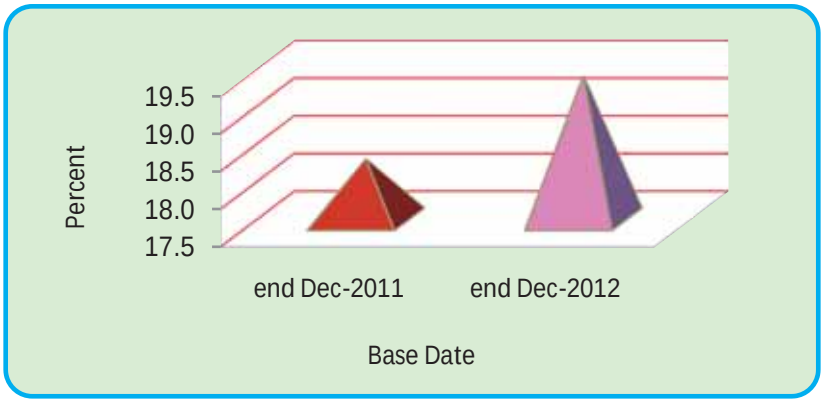


Source: Department of Financial Institutions & Markets, BB.

6.5 Capital adequacy

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 18.3 percent in CY11 (under Basel I) and 19.4 percent in CY12 (under Basel II). This position was well in excess of the regulatory minimum requirement of 10 percent.

Chart 6.5 NBFIs' Capital Adequacy Ratio (CAR)

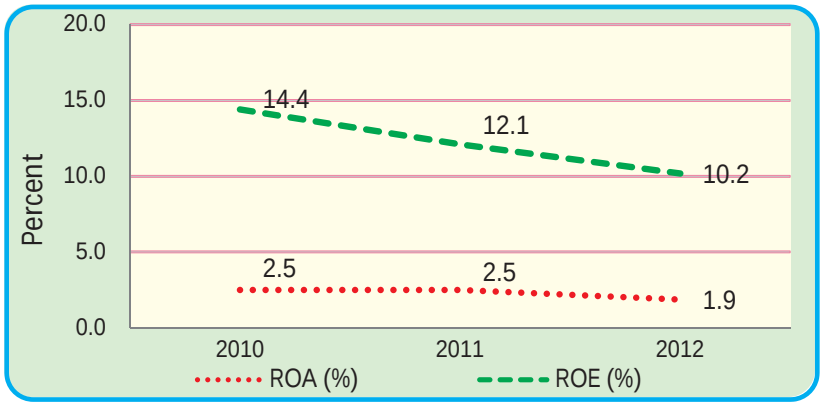


Source: Department of Financial Institutions & Markets, BB.

6.6 Profitability

NBFIs' major portion of income was generated from term finance. Interest on deposits was the major outlay of total expenses. Consequently, total operating income consisted mostly of net interest income.The NBFIs experienced a decline in profitability during CY12. Profits before taxes were cut down by 10.0 percent in CY12 on account of a decrease in non-interest income (13.3 percent) and fee income (60.0 percent) from capital market activities. Consequently, the profitability indicators declined. The return on assets (ROA) and the return on equity (ROE) fell to 1.9 percent and 10.2 percent respectively in CY12 from 2.5 percent and 12.1 percent in CY11.

Chart 6.6 NBFIs' profitability trend



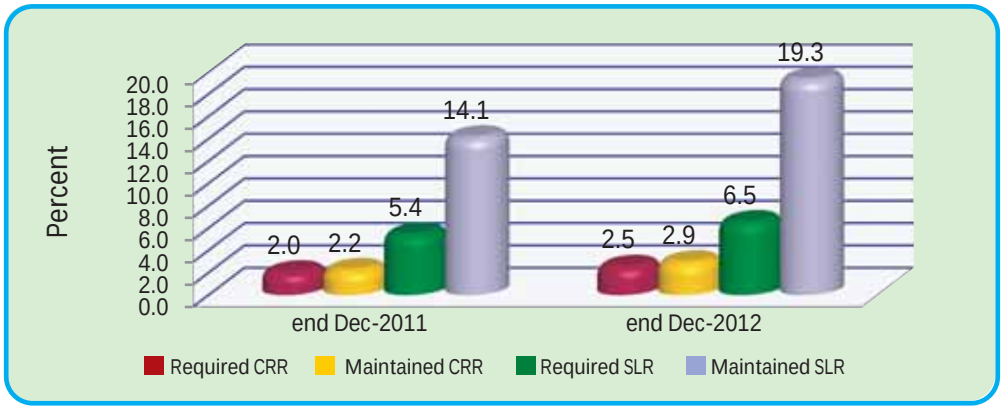
Source: Department of Financial Institutions & Markets, BB.

6.7 Liquidity

NBFIs who take term deposits have to maintain a statutory liquidity requirement (SLR) of 5 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.

As of 31 December 2012, an aggregate 2.9 percent CRR and 19.3 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 required amount.

Chart 6.7 NBFIs' CRR & SLR



Source: Department of Financial Institutions & Markets, BB.

6. 8 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. Credit risk assesses the impact of increase in NPLs, downward shift in the NPL categories (i.e., special mentioned account to substandard, substandard to doubtful, doubtful to bad/loss), fall in the value of eligible securities against loans and leases, increase in NPLs under bad/loss category in particular two sectors where the NBFI has the highest exposure and increase in NPLs due to top large borrowers. Minor, moderate and major level of shock scenarios to the individual risk factors are applied giving weights of 50 percent, 30 percent and 20 percent respectively.

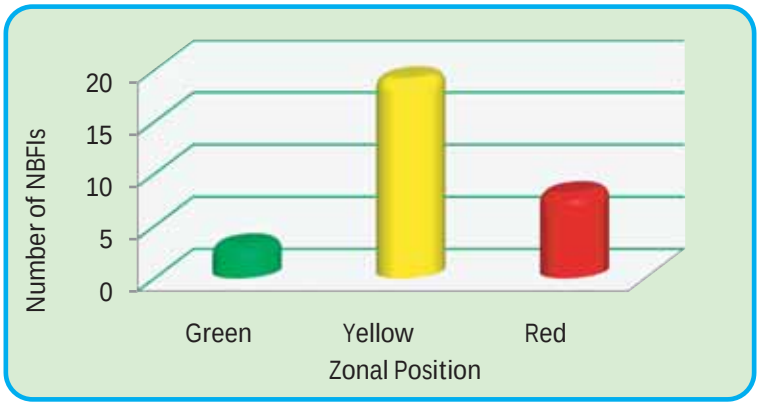
The Weighted Average Resilience (WAR) is calculated based on the weights of 10 percent for interest rate, 60 percent for credit, 10 percent for equity price and 20 percent for liquidity at three levels of shock scenarios.

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 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 percent, 30 percent and 20 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 percent on WAR and 20 percent on WIR.

Chart 6.8 Combined WAR-WIR Matrix-based Zonal Position (CY12)



Data Source: Department of Financial Institutions & Markets, BB.

Results from the stress test based on end December 2012 data reveal that out of 30 NBFIs, 3 are positioned as green, 19 are positioned as yellow and rest 8 are positioned as red. Out of the 8 NBFIs positioned as red, 4 are located there due to shortfall in regulatory capital. Since 22 NBFIs of the overall sector of 30 conducted their operations as resilient during CY12, the overall NBFI sector is deemed as resilient.

Chapter 7

Capital 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 Bangladesh, recent instability in the equity market had only a nominal effect on the major macroeconomic variables, as the shocks in the equity market (positive or negative) were mostly absorbed by the financial system and its related stakeholders, fortunately with no broader side-effects. The capital market, nevertheless, did create some inefficiency in this sector, specifically in that both the intermediation function of financial institutions and the price discovery mechanism in the asset markets were hampered to some extent. This instability has also created some problems for the policymakers, as their directed policies changed focus from their long-term developmental goals to shorter-term disaster management. Lower confidence level of the investors was apparent from the non-trending volatile market index and low turnover throughout the year 2012, a common behavioral trait almost always displayed by general investors suffering from post- crash trauma.

7.1 Market Structure

The Bangladesh Securities and Exchange Commission (BSEC) plays the central and most vital role to regulate, monitor and oversee the capital market, with a view to making the capital market stable.

There are 2 stock exchanges which operate under the regulation of BSEC- Dhaka Stock Exchange Limited (DSE) and Chittagong Stock Exchange Limited (CSE). Each Stock Exchange establishes listing requirements, approves, suspends or removes listing privileges of companies and monitors listed companies in compliance with legal regulatory provisions.

There are 53 merchant banks[35], among which 43 operate as full-fledged merchant banks. There are 380 depository participants (DP) (including the merchant banks), and their services range from full service DP to specialized services such as custodian services. There are 8 credit rating companies operating under the license of BSEC, to grade the credit quality of the listed companies and their securities. There are also 17 asset management companies and 9 trustees of asset backed securities working under the license of BSEC.

7.1.1 Market Size

DSE, with 242 companies and 515 listed securities, is the country's prime bourse, considering its ample contribution to the capital market[36]. Total market capitalization of DSE stood at Taka

[35] Synonymous to the term investment bank. A merchant bank is a financial institution which is primarily engaged in offering financial services and provides advice to corporations and to wealthy individuals. The term can also be used to describe the private equity activities of banking.

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

2403.6 billion (as of 30 December 2012) declining about 8.2 percent from the previous year-end balance of Taka 2616.7 billion (as of 29 December 2011). CSE has listed 257 securities, of which 213 are company shares, 41 are mutual funds and 3 are corporate bonds. The total market capitalization of CSE stood at Taka 1795.7 billion (as of 30 December 2012) declining about 9.9 percent from the previous year-end balance of Taka 1993.8 billion (as of 29 December 2011).

Box 7.1 Opening new horizons and rectifying measurements

Online-based secondary Bond Market

Aiming to create a vibrant secondary 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. TWS's success will depend on its ability to attract financial institutions and households to invest in government securities and increase the trading volume of government bonds. Currently, three types of treasury bills (91-day, 182-day and 364-day) and four types of government bonds (5-year, 10-year, 15-year and 20-year) are being traded.

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. 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.

Bond market development is extremely crucial from both the investors' and issuers' perspective. Currently, the only traders of Treasury bills and bonds in Bangladesh are banks and NBFIs. Creating a functional infrastructure will give them the opportunity for better fund management and open new horizons of profitability. General investors will appreciate this opportunity, as these low risk assets will make them more diversified and improve their risk-return trade-offs. Thus the success of this new market is important for the stabilizations of the operations of the financial market and institutions.

The Introduction of DSEX and DS30 Index

DSE has introduced two international standard indices, which are known as the DSE Broad Index ('DSEX') and DSE 30 Index ('DS30') based on free float and Standard and Poor's (S&P) methodology with effect from January 28, 2013. Earlier it computed three indices; All Share Price Index (DSI), DSE General Index (DGEN) and DSE-20 Index (DS20).

DSEX- Broad Index of the Exchange (Benchmark Index) reflects around 97% of the total market capitalization. Eligible stocks for 'DSEX' must have a float-adjusted market capitalization above Taka 100 million. To exist in the DSEX, a stock must have a minimum six-month average daily value traded (ADVT) of Taka 1 million as of rebalancing reference date.

DSEX is designed in such a way that its measurement will reflect the market situation better than the other indice. A better measurement technique gives the general investors more insights about the market while making investment decisions.

A total of 165 listed companies out of 242 (at DSE) increased their paid-up capital amounting to Taka 48.0 billion by issuing bonus shares, and 9 companies increased their paid-up capital amounting to Taka 8.7 billion by issuing rights shares during CY12. A total of 10 companies and 4 mutual funds floated their IPOs in CY12. As a result, the total issued capital at DSE

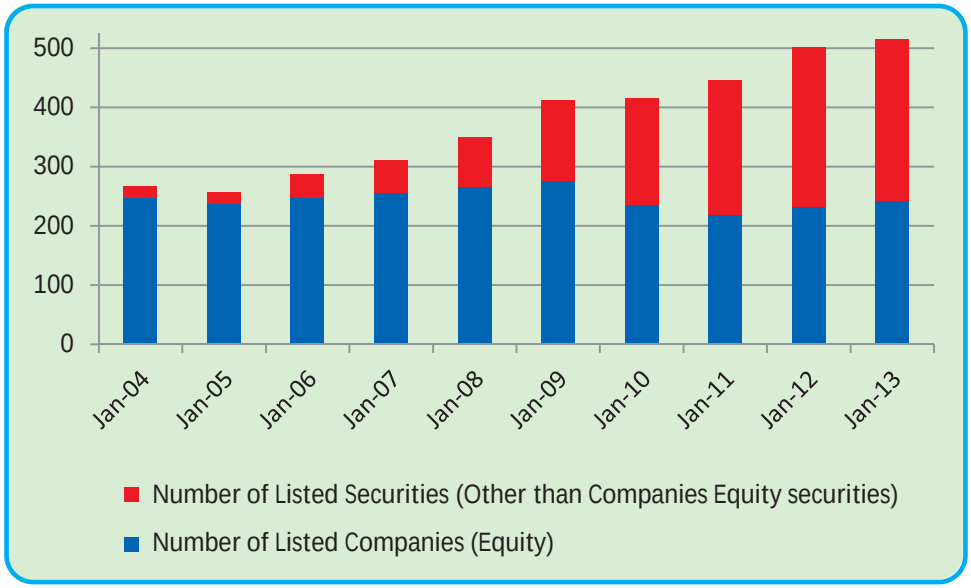
climbed to BDT 949.9 billion on 30 December 2012 from BDT 878.9 billion on 30 December 2011, scoring an increase of 8.1% over the period.

7.1.2 Listed Securities

On the basis of the characteristics of the companies, BSEC has divided the companies into five groups; A, B, G, N and Z[37].

From 01 January 2012 to 01 January 2013, the number of listed companies at Dhaka Stock Exchange increased from 232 to 242, scoring a growth of 4.3 percent. In the same period, number of listed securities had grown from 501 to 515, having a growth rate of 2.8 percent.

Chart 7.1 Number of listed companies and securities



Source: DSE Monthly Review, Several Issues

Although the number of listed companies increased over CY12, over the longer period of 2008-12, the number declined from 276 to 242, declining by 12.3 percent[38]. However, in the same period, the number of mutual funds listed at DSE increased by 156.3 percent, and the number of treasury securities increased by 99.1 percent. And, over the four-year period 2008-2012, the trend was uneven. If the period is broken up in half, the number of companies listed at DSE declined from 276 to 218 during the period of December, 2008-December, 2010, scoring a decline by 21.0 percent. Incongruously, over the next two years the number of listed securities grew by 11.0 percent. It suggests that the number of the companies listed at DSE declined in the bullish period, and increased in the bearish period. The declining number of companies and fast rising number of mutual funds affected the market variables and played an

[37]For details, please visit www.dsebd.org

[38]It is the net decline, meaning delisted companies exceeded the number of IPO's and companies brought back from the OTC.

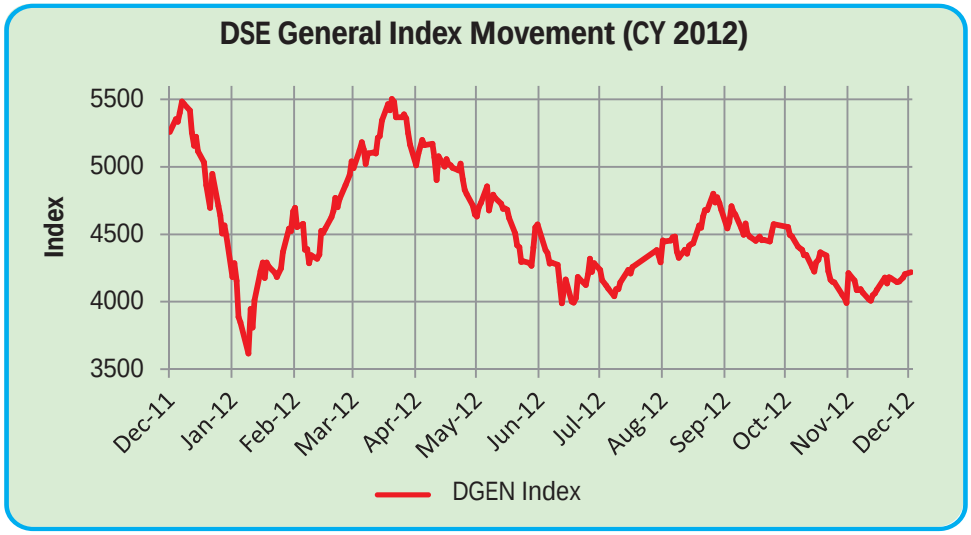
important role in the destabilization of the capital market. In the bullish period, both the descending number of listed companies and increasing number of mutual funds fueled the demand of the existing stocks, causing their price to deviate from their fundamental values.

Though mutual funds were expected to increase the supply of trading securities to meet the increasing demand for securities, their issuance did not help the investors because of two reasons. Firstly, mutual funds represented a certain type of investment vehicle that attracted only certain classes of investors[39]. Secondly, mutual funds eventually increased the demand for the existing securities as they built up their inventories from the available securities in the market and imposed further pressure on share prices.

7.2 DSE General Index Movement

The DSE general index, from 29 December 2011 to 30 December 2012, decreased by 19.8 percent. It was at its lowest (3616.2) on 06 February 2012 and at its highest (5502.3) on 17 April 2012. It did not show any particular trend over that period, though a few short-lived upward and downward trends were observed. However, volatility was observed to be higher in the first half of the year, and it substantially declined during the second half.

Chart 7.2 DSE General Index Movement (CY 2012)



Source: Recent Market Information, www.dsebd.org

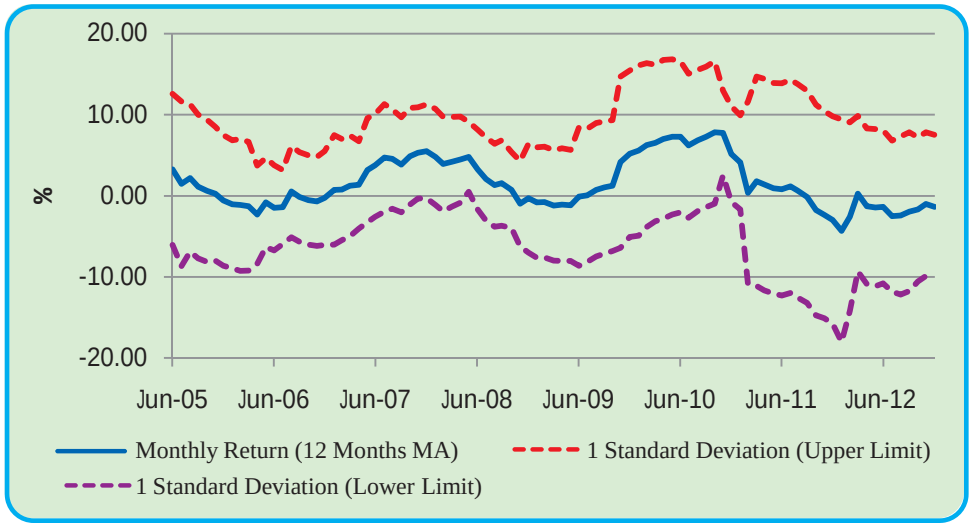
Over the longer period (Chart 7.4), the general index movement showed some extreme ups and downs. The DGEN index jumped from 3383.2 to 4148.12 (almost 764.9 points or 22.6 percent) on 11 November 2009[40]. Just after that, market experienced a phenomenal growth, almost 115

[39]Investors either inclined to passive management techniques with diversified portfolio or the investors followed active management techniques and used mutual funds to improve their risk return tradeoffs. Surely investors who pursued full blown active management techniques (consisting of the major part of the investors who had short time horizons) had little or no interest in these kind of investment vehicles. As a result the diversification benefits of owning mutual funds attracted new investors into the market, but failed to coax out an increased supply of the underlying securities. Accordingly, there was more demand for the existing securities, either to be held directly or indirectly through mutual funds, and prices rose correspondingly.

[40]This jump was due to the introduction of Grameen Phone shares in the secondary market.

percent, over the next year. The long uptrend ended after a year on 05 December 2010, when the index stood at all-time high, at the level of 8918.5. Since then, the index has declined to 4219.3, scoring a drop of 52.7 percent. This periodical high volatility has led to general erosion in investors' confidence in the market,and it has also reduced the usefulness of stock price as a reflector of the real worth of the firm.

Chart 7.3 DGEN Index Volatility



Source: Recent Market Information, www.dsebd.org

The monthly index changes (12 months' moving average), measured in percent, and has shown somewhat of a cyclical pattern since 2005. However, after December 2010, it showed a prolonged downturn. Also the 1 standard deviation confidence interval widened during that period, showing the lower confidence of the people on the price behavior which comes from increased volatility. The lower limit of the confidence interval hits its historical lowest point at January, 2012. Afterwards, a shrinkage in the confidence interval indicates the sign of improvement[41].

Moreover, higher negative skewness and lower kurtosis was observed during the period of December 2010- December 2012 compared to their long run values (June 2005- December 2012). The descriptive statistics of the index movement are given in the following table:

Table 7.1 Descriptive Statistics of the Monthly Index Movement (June, 2005- December, 2012).

Statistics	June, 2005- December, 2012	December, 2010- December, 2012	January, 2012- December, 2012
Average Return	1.62	-2.23	-1.43
Standard Deviation	8.65	10.58	8.88
Skewness	-0.22	-0.43	-0.63
Kurtosis	2.39	1.79	1.12

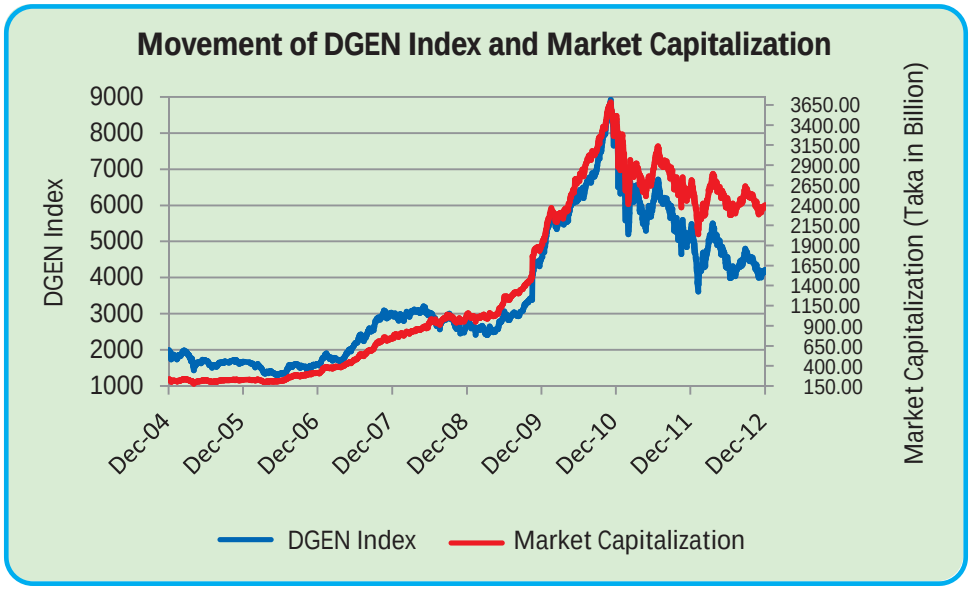
[41]Long positive trend reduce volatility, investors can forecast with more confidence with the technical analysis tools though the stocks might have deviated from their fundamental values. Long negative trends also have the same impact. It is during the period of change in the trends (the kinked points), the volatility rises. This turnaround point was observed in December, 2010, and that affected investors' decision till first part of 2012. During that period the index sharply declined. The declining period had steeper slopes than the positive slope during 2009-10.

7.3 Market Capitalization

Market capitalization[42], a changing metric based on current stock market prices, helps to measure the value of a company.

Total market capitalization of the DSE from December 2004 to December 2012, increased about 11 times, comprising an annual growth rate (compounded) of 34.5 percent. The growth rate was highest in 2010, about 84.3 percent. Since then, market capitalization has declined about 31.5 percent. Market capitalization, though highly correlated with the broad market index, did not fall as much as the index over the period of December, 2010- December, 2012, because of the issuance of several IPOs and capital issuance through the market by the existing listed firms. Moreover, market capitalization and the DGEN index both fail to adjust for the effect of the non-floated share in the market. As a result, the actual gain or loss that retail investors were making was indeterminable.

Chart 7.4 DSE General Index and Market Capitalization Trend



Source: Recent Market Information, www.dsebd.org

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

[42]The market capitalization of any company is the product of the current stock price per share times the total number of shares outstanding.

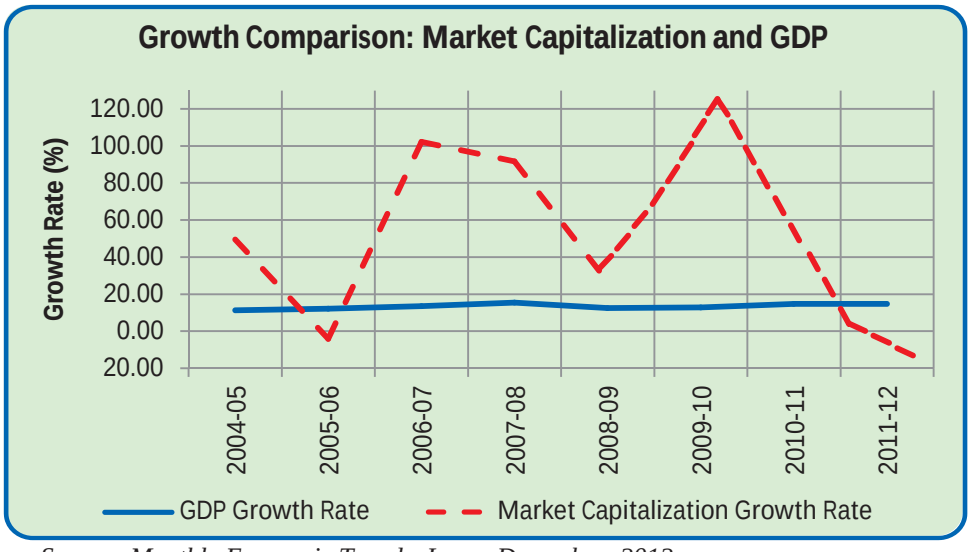
7.3.1 Market Capitalization Ratio

In FY2003-04, the market capitalization ratio was 4.3 percent and reached to 32.8 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 21.1 percent in FY2011-12, continuing a downward trend begun in the previous fiscal.

Chart 7.5 Market Capitalization Ratio (FY 2003-04 to FY 2011-12)

Source: Monthly Economic Trends, Issue: December, 2012

Chart 7.6 Market Capitalization and GDP Growth (FY 2004-05 to FY 2011-12)



Source: Monthly Economic Trends, Issue: December, 2012

GDP growth and growth in market capitalization have not displayed any significant correlation over the last 8 fiscal years[43]. During the plotted period (FY2004-05 to FY2011-12), growth in market capitalization has exceeded GDP growth, but was markedly unstable.Nominal GDP

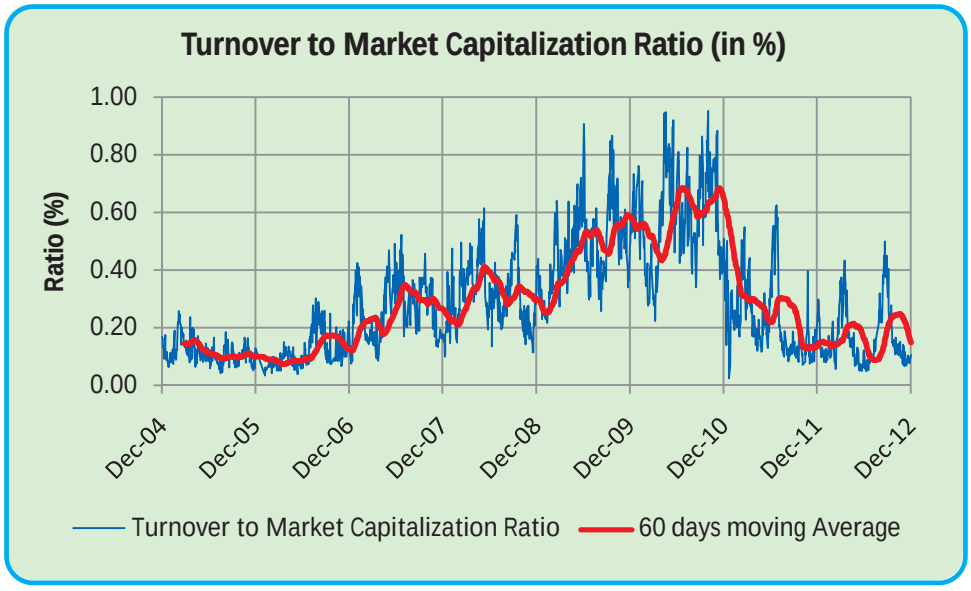
[43]Statistically these two growth variables show no significant correlation.

growth showed a nearly flat trend, while growth in market capitalization showed an irregular trend. In FY 2004-05, growth in market capitalization was 49.6 percent whereas the nominal GDP growth was only 11.3 percent. In contrast, in FY 2011-12, growth in market capitalization was (17.0)[44] percent and nominal GDP growth was 14.8 percent.

7.3.2 Turnover to Market Capitalization Ratio

Similarly, the 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[45]. It also shows the increasing confidence of the traders, both individual and institutional. A declining ratio can be explained in the same manner.

Chart 7.7 Turnover to Market Capitalization Ratio (Dec. 2004- Dec. 2012)



Source: Recent Market Information, www.dsebd.org

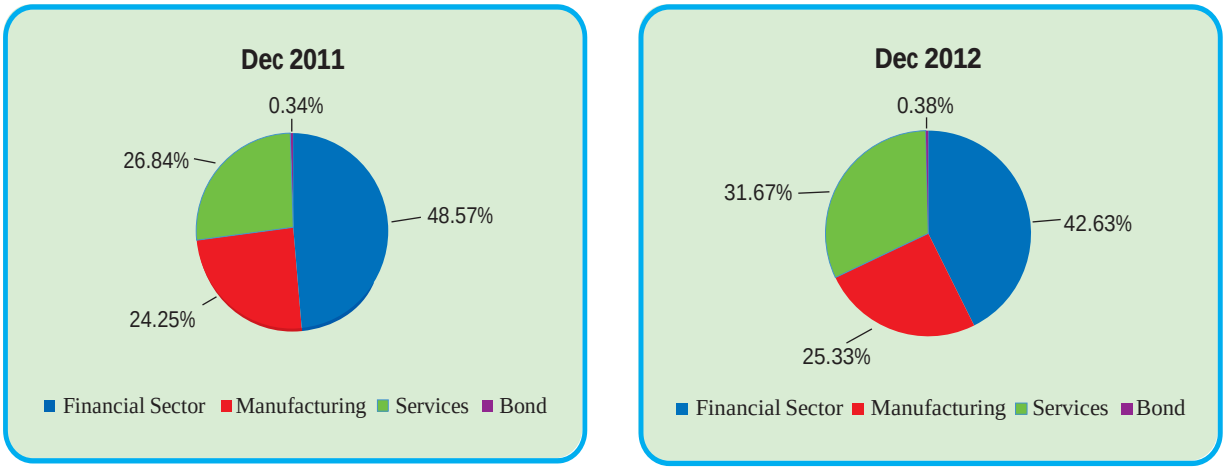
The DGEN index declined from a peak on 05 December, 2010 about 52.7 percent up to 30 December, 2012 and market capitalization declined 34.7 percent in the same period. Meanwhile, daily market turnover declined by 92.3 percent[46], indicating an almost-complete cessation of liquidity. The turnover to market capitalization ratio in recent times is below the level of 2004. Intuitively, it is caused by low investors' confidence and an uncertain liquid position of the institutional investors.

[44]Value in parentheses means negative growth.
[45]Which can be explained by the improved relative liquidity condition due to a high volume of share trading resulting from greater market activities.
[46]Market turnover on 05 December, 2010 and 30 December, 2012 were 32.50 billion Taka and 2.50 billion taka respectively.

7.3.3 Herfindahl-Hirschman Index (HHI)

The market capitalization of the DSE is largely dominated by the financial industry. At end-December 2012, the financial industry held 42.6 percent of market share, with the banking sector alone representing 26.7 percent.However, these dominant positions have been declining somewhat: at end-December 2011, the market shares of the financial and banking industry were respectively 46.4 percent and 29.6 percent.

Chart 7.8 Sector wise Market Capitalization (in %) - December 2011 and December 2012



Source: DSE Monthly Review, Several Issues

The service industry (including Fuel and Power, IT, Telecommunication etc.) observed a remarkable growth during 2012. The industry possesses market share of 31.7 percent at end-December 2012, compared with 26.8 percent at-end December 2011.

The Herfindahl-Hirschman Index (HHI), measuring sector-wise concentration in market capitalization, scored 1293 points at end-December 2012, declining from 1545 at end-December 2011. This level reveals a moderate concentration in the capital market. Intuitively, a declining value implies a diversification in sectoral market capitalization. Favorable government policy towards the fuel and power sector and telecommunications helps them to access capital through the stock market. Stable macroeconomic conditions, on the other hand, help the travel and leisure sector to increase their business and thereby more easily seek sources of funds through the stock market. The banking sector index was reduced substantially in 2012, because of declining share prices of banks in the secondary market.

Table 7.2 Sector wise Market Capitalization (as of 30 December,2012)

Sl No.	Sector Name	Amount in Billion BDT	% of Total	HHI (2012)	HHI (2011)
1	Banks	490.38	26.72	714	1044
2	Financial Institutions	154.14	8.40	71	86
3	Insurance	98.15	5.35	29	29
4	Mutual Funds	39.73	2.16	5	3
5	Foods	64.92	3.54	13	7
6	Pharmaceuticals	149.83	8.16	67	68
7	Textile	65.92	3.59	13	8
8	Engineering	76.44	4.17	17	25
9	Ceramics	21.83	1.19	1	2
10	Other Manufacturing Industry	73.64	4.01	16	12
11	Cement	12.21	0.67	0	1
12	Fuel & Power	217.80	11.87	141	135
13	Service & Real Estate	8.92	0.49	0	0
14	IT	4.83	0.26	0	0
15	Telecommunication	253.63	13.82	191	115
16	Travel and Leisure	48.35	2.63	7	0
17	Miscellaneous	54.58	2.97	9	11
	Total	**1835.29***	**100.00**	**1,293**	**1,545**

Source: Monthly Review, December 2012, Vol. 27 & 26, No. 12, Dhaka Stock Exchange Limited

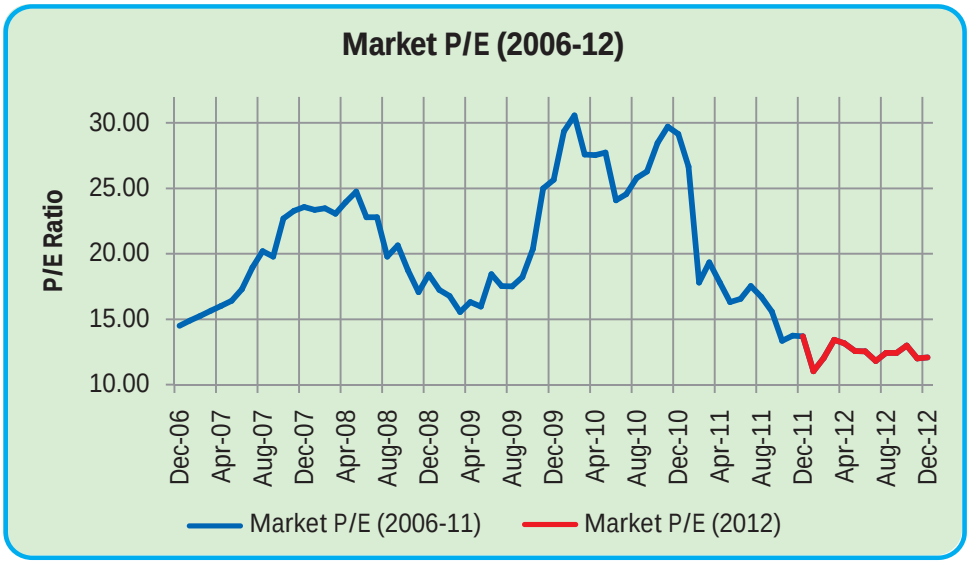
* Only share capitalization, corporate bonds and mutual funds units are included

7.4 Price Earnings Ratio

The overall weighted average price earnings (P/E) ratio of DSE was 12.1 in December 2012, which is 11.8 percent and 58.6 percent lower than that of December 2011 and December 2010 respectively, indicating a decrease 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 29.9[47].

[47]In December, 2012, banking and financial institutions' P/E were 8.7 and 15.2 respectively.

Chart 7.9 Market Price/ Earnings Ratio (Dec. 2006- Dec. 2012)



Source: DSE Monthly Review, Several Issues

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 2012, was 19.26 with a standard deviation of 5.3. In 2012, the P/E ratio peaked at 13.4 in the month of March, and troughed at 11.0 in the month of January. The 12 month average P/E ratio was 12.5 indicating a low but stable P/E ratio in the market. The current P/E level is more than 1 standard deviation below the long term average, indicating that shares remain relatively cheap after the market downturn which began in late 2010.

The general price index, after December 2010, has dropped about 49.1 percent, while the P/E has declined about 58.6 percent due to the growth of EPS of the listed companies. Notionally, the earnings per share of the listed companies grew about 22.9 percent over that period and the fundamental relationship between price and earning was found to be weakened. Lower turnover to market capitalization ratio (absence of liquidity) can explain this event. Indeed, the insufficient liquidity and low investors' confidence severely handicapped the price discovery mechanism in the secondary market.

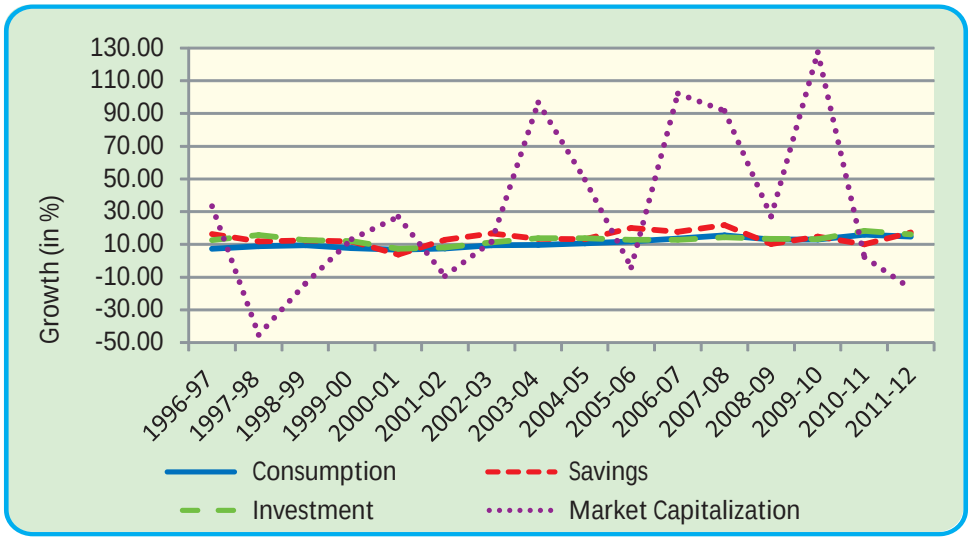
7.5 Overall Market Scenario and some issues of stability

In 2011, the capital market was in a receding trend, with declining daily turnover coupled with substantial price correction that traumatized the general investors' confidence. However, a mixed scenario was observed in the capital market in 2012. Stable growth in the issued capital (including IPO), an improved HHI index and stable P/E ratio brought some positivity in the market. However, the general price index, market capitalization and market turnover continued to decline slightly, for the second consecutive year.

7.5.1 Stability Issues and Policy Concerns

Though the capital market is the primary source of long term financing, instability in the stock market has had little impact on the major macroeconomic variables in Bangladesh[48].

Chart 7.10 Growth of Major Macroeconomic Variables with Market Capitalization



Source: Monthly Economic Trends, Issue: March, 2013

Comparing the growth of the macro variables with the market variables over the period of the last 16 years (FY 1997- FY 2012), it can be observed that movements in market variables had only a nominal impact over the macro variables. Moreover, the correlation coefficient between macroeconomic and market variables is found to be too low to be considered significant. With such low correlation, the possibility of the existence of spurious relationships cannot be ignored. The lower than expected impact is mainly caused by the asset holding behavior of the general investors of Bangladesh, as wealth held in the form of equity represents only a small fraction of the total wealth of the nation.

Compared to other Asian nations, the market capitalization ratio of Bangladesh stands at the second lowest position. Moreover, this market capitalization is not float-adjusted; therefore the impact on the real income of the consumers is far less than what could be anticipated. The bulk of the individual investors consider income from the security market as temporary income. As per the permanent income hypothesis[49], this income should not affect their current expenditure pattern; instead, their savings become lower in the period of instability. The institutional investors (banks, insurance companies, etc.) consider the income generated from the equity market as supplementary sources of income[50]. Also, investors (both individuals and institutional) with long-term horizons are not affected by short-term price volatility, as they are comfortable with volatility and not anxious to trade frequently.

[48]Macroeconomic variables considered are consumption, investment and savings while the capital market indicators are general price index and market capitalization.

[49]Friedman, M. (1957): A theory of consumption function.

[50]The Income from the whole financial intermediation process contributes only 1.85 percent to the total GDP. The impact of the float adjusted capital loss of the investors will be only a fraction of it. So, the impact will be expected to be minimal. (Data Source: Monthly Economic Trends, March, 2013).

Chart 7.11 Market Capitalization Ratio in South Asian Countries

Source: Annual Report, Bangladesh Securities and Exchange Commission, June, 2011

As a result of this structure, the stock market correction did not hamper the real economic growth of Bangladesh during the period of 2010-12.

Though capital market instability did not materially affect consumption at large, its stability matters for the policymakers to ensure efficient allocation of capital and risk sharing facilities for enhancing economic stability. A functional capital market ensures the correct price in the asset market and its stability encourages the presence of large number of investors with diversified motives and differentiated investment horizons.

An unstable macroeconomic condition is always undesired for the stability of the capital market, as it reduces the predictability of the future cash flows and the discount rate. Thus, macroeconomic stability is a necessary condition for capital market stability, but not a sufficient condition. Indeed, it is observed from the 2010 debacle that the macroeconomic stability does not ensure capital market stability. There are two rationales behind this fact. First, a stable macroeconomic and political condition causes equity prices to rise and the bandwagon effect intensifies the upward movement. If it is not checked, this becomes a mania and causes the price level of the assets to reach a level that is hard to justify (Chart 7.9) on the basis of fundamentals. Second, other internal and external factors like investors' possibly irrational behavior, internal market structure, presence of asymmetric information, fears that the market is not transparent, etc. could distort the market mechanism and create instability in the market.

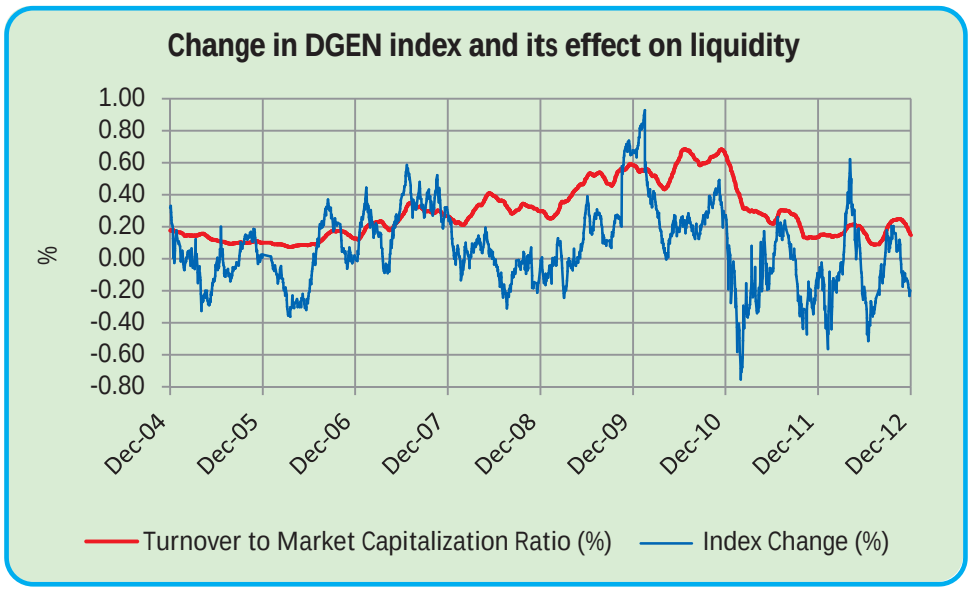
As was seen, bullish market sentiment collapsed through speculative attacks.Speculation with short-term profit motives,relying on grapevine information,obstructs the attainment of the proper price discovery mechanism in the market. The market becomes unstable, with extreme irrational behavior exhibited by its players. Irrational investors overuse recent information and short-term scenarios for valuation of securities, rather than depending on fundamental norms of valuation.

Asymmetry in information contributes to instability and reduces the confidence of the investors. Moreover, lack of quality information affects the behavior of both individual and institutional investors. Information asymmetry encourages both participants to adopt a short-sighted profit making goal and prohibits them from forecasting confidently in the long term. This is also the reason for the low level of liquidity in the current market scenario as asymmetric information adds fuel to the liquidity crunch.

Information asymmetry hurts general investors in many ways. One particular feature shown by the investor is the "herding" behavior. Lacking the knowledge of the fundamental mechanism of asset pricing along with poor information collection systems, investors mostly rely on the market trends. This behavior intensifies any trend (bullish or bearish). Chart 7.12 shows how investors get more aggressive in the bullish period and become more pessimistic in the bearish one.

In addition, the practice of margin lending, if not properly conducted, may contribute to instability. Margin loans generally facilitate buying in a rising market and provoke selling in a falling market,thereby intensifying price movements and causing higher volatility.Because banks and other financial institutions provide margin loans (through their subsidiaries), this is also one of the important channels through which instability in the capital market is transmitted to the financial sector[51].

Chart 7.12 Change in the DGEN and Turnover to Market Capitalization Ratio[52]



Source: Recent Market Information, www.dsebd.org

[51]Though the banks reduced their direct exposure in the capital market, their indirect exposure through their subsidiaries was significant. Margin loans frozen in the market through the banks' merchant banking subsidiaries caused the liquidity crisis to transfer from the capital market to the banking system.

[52]Frequency: daily, data: 60 days moving average. Notionally, index growth and turnover to market capitalization ratio should have low (sometimes negative) correlation in a vibrant market. That is index movement should not affect the turnover to market capitalization ratio. But in Bangladesh, over the observed period of 2004-12, the correlation is 0.52- suggesting the existence of the "herding" behavior in the market.

Contractionary monetary policy can cause overall liquidity to shrink and force the banks to pull off exposures from the capital market to restore their own liquidity positions. Also, short time rises in the interest rate can cause the banks to invest more in fixed income vehicles, loans and treasuries and cause redirection of funds away from the capital market. Thus, monetary policy shocks have an important impact on the capital market, transmitted through institutional investors. Banks and NBFIs were the major source of the liquidity at DSE with high daily turnover. Thus, withdrawal of their investments during CY 2010-12 obstructed the market significantly. Their decision affected their own performance in the subsequent years. As discussed earlier, the margin loans distributed by their merchant banking wings exposed them to the adverse effect of the capital market. As the index drops, these margin loans become toxic and hamper their profitability as a consolidated company. Another problem the banks and NBFIs faced was through the channel of their resource allocation. Withdrawal of investments from equity securities left them with a less diversified portfolio as they become more exposed to loans and fixed income securities[53].

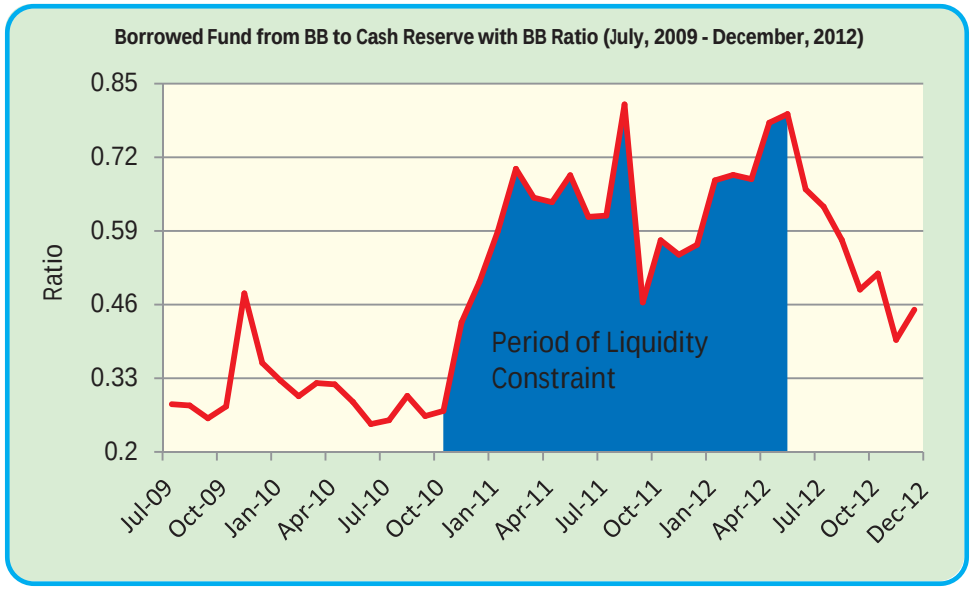
The shortage of liquidity affected the policy stability as well. The primary policy goal of BB is to target inflation. For this purpose, BB increased the CRR requirement as well as the repo rate in the latter part of 2010. A high loan to deposit ratio, increased level of CRR, frozen funds as margin loans in the capital market, a less diversified portfolio and inefficient fund management techniques of some financial institutions fueled a liquidity shortage in the financial system[54]. Lack of liquidity affected the pricing mechanism in the banking system adversely. The rise in the funding rate (both deposit rate and interbank call money rate) caused the credit rate to rise, eventually threatening to hamper investment in the productive sectors. To satisfy the liquidity needs of the banks and to ensure the pace of the productive activities, the banks were allowed to borrow extensively from the central bank[55]. Allowing the banks to borrow more from BB helped the banks to find stability in their fund management, but at the expense of delaying the major policy goal of inflation control.

[53]Two particular problems arise here. Firstly, banks and NBFIs would become more vulnerable to interest rate shocks assuming their asset portfolio contained largely fixed rate loans/ securities. Secondly, the new, more stringent loan classification policy of Bangladesh Bank is requiring the banks to build higher loan loss provisions and thus putting pressure on profitability.

[54]Capital Market instability was one of the major causes but not the only reason of the liquidity shortage.

[55]The borrowing increased by 204.7 percent and 21.5 percent in the FY 2011 and FY 2012 respectively.

Chart 7.13 Ratio of Fund Borrowed from BB to Cash Reserves Maintained with BB



Source: Monthly Economic Trends, Several Issues

The shaded area of 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, due to more than proportionate rise in the borrowing amount.

Bangladesh Bank, Securities and Exchange Commission and other regulatory authorities came forward and signed a Memorandum of Understanding (MOU) in 2012 to share their views and take coordinated efforts to promote stability in the capital market as well as in the overall financial sector[56].

[56]See Chapter 9 for detailed discussions.

Chapter 8

Financial Infrastructure

Bangladesh's financial infrastructure has been newly upgraded by a National Payment Switch and Mobile Financial Services. These new features ensured smooth and reliable transactions throughout CY12 which contributed to the stability of the payments system.

8.1 National Payment Switch Bangladesh (NPSB)

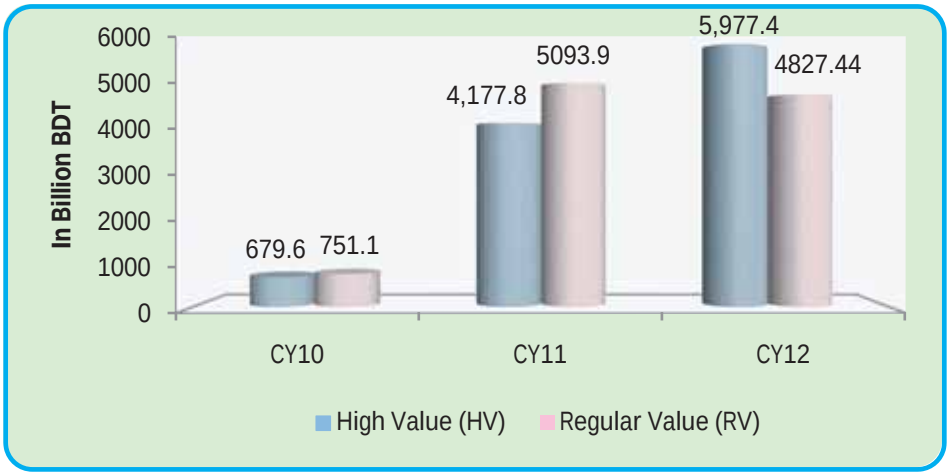
Bangladesh Bank (BB) launched the National Payment Switch in 2012 in order to create a common platform for bank cards (Debit/Credit/Pre-paid), internet banking and mobile based payments in Bangladesh. All inter-bank domestic transactions originating from any delivery channel (ATM/POS/Kiosk/Mobile/Internet) 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 (BACH)

The Bangladesh Automated Clearing House (BACH) in Bangladesh Bank started the automation of cheque clearing since 07 October 2010 by replacing the traditional manual clearing system. It integrates two components, the Automated Cheque Processing System and the Electronic Funds Transfer. Both components 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 Bangladesh Bank. 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. Digital Certificate has been formulated for the first time in Bangladesh for secured data communication.Under this automated clearing system, two types of transactions, high value[57] and regular value cheque clearing, take place.

[57]The cheques amounting to BDT 5 lac or more.

Chart 8.1 Automated Cheque Clearing Operations



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

8.3 The Electronic Fund Transfer

Electronic Fund Transfer (EFT) has been introduced to facilitate the banks in making high value payments instantly using less materials and manpower. The Bangladesh Electronic Fund Transfer Network (BEFTN) started its operation on 28 February 2011. On average, approximately 20,950 EFT transactions were processed in a day in CY12. The total monetary amount of EFT transactions under BEFTN in 2012 was BDT 284.3 billion, which is more than ten times last year's (2011) transactions.

8.4 Mobile Financial Services

The rapidly-expanding mobile communication system in Bangladesh has opened up windows of opportunities 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. However, 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[58]. As of March, 2012, a total of 10 banks were given permission for operating mobile financial services in Bangladesh.

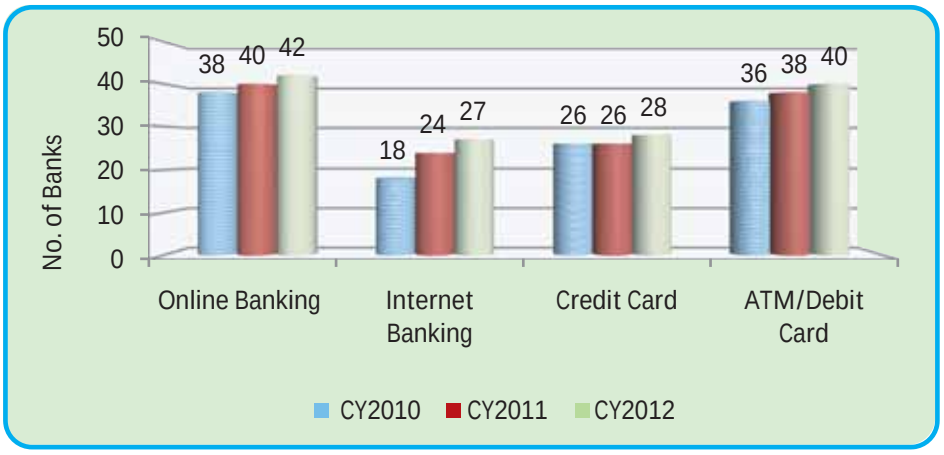
8.5 M-Commerce

BB has given permission to three mobile phone operators for conducting M-Commerce in Bangladesh. These operators are Grameenphone, Banglalink and Citycell. They already have started selling railway tickets through mobile phones. Besides, Grameenphone was allowed to sell international cricket match tickets arranged domestically by Bangladesh Cricket Board. Approximately, 5,549,246 utility (water, gas and electricity) payments were transacted through Grameenphone in 2012 which was almost 1200 percent higher than that of the previous year. Moreover, approximately 17,250 train tickets were sold per month using m-commerce in 2012 which was 43 percent higher than that of the previous year. The above data indicate a rapid growth of M-Commerce in Bangladesh.

8.6 Electronic Banking Operations

Most of the commercial banks have developed their Core Banking Solutions to facilitate better service. Out of 47 scheduled banks, 42 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.

Chart 8.2 Numbers of Banks Providing Electronic Banking Facility in CY10, CY11, CY12

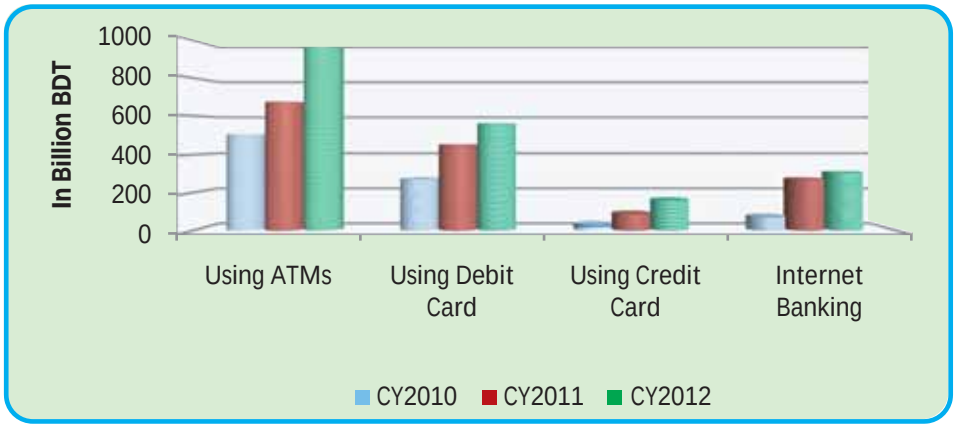


Source: Data: PSD, BB; Compilation: FSD, BB.

[58]This regulatory certainty has allowed the market to move and by late 2011 and in 2012 two early leaders have emerged with the largest customer base and agent networks. The bKash service of a private commercial bank (BRAC Bank Ltd.) and Dutch-Bangla Mobile extended the avenues of mobile financial services. These two providers altogether made the largest contribution to the nearly 500,000 new mobile accounts and more than 9,000 new agents (Source: Mobile Financial Services in Bangladesh: An Overview of Market Development, 2011).

The above chart demonstrates an increasing trend in the adoption of electronic banking features during CY10-CY12. Although, the number of banks introducing credit cards during CY10-CY11 became stagnant, there was an improvement during CY12. Moreover, the number of own ATM machines increased dramatically during CY12. The statistics shows that 1359 new ATM machines were set up during CY12.

Chart 8.3 Volumes of Electronic Banking Transactions



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

The above chart describes an increasing trend in the monetary volume of electronic banking transactionsin Bangladesh. The volume of transactions using an ATM booth increased faster in 2012 than the preceding two years. Moreover, increasing trends in the transaction volume of debit cards and credit cards show a significant growth in electronic banking. However, internet banking experienced a slower growth in 2012 compared with preceding years.

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 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 bill 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. However, depository participants, issuers, commercial banks, stock exchanges and central bank are connected to the network interface by WAN link and dial-up telephone lines.

As of March 2013, there are 315 full service depository participants (DPs), 04 Exchange DPs, 78 Custodian DPs and 44 Treasury DPs registered under CDBL. In addition, there are 314

issuers and 305 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 etc.

8.8 Other Information on Technological Developments in the Financial System

BB will introduce the 'Guidelines on Agent Banking' in CY13 with a view to creating an enabling environment for offering financial services to the new target group. In the agent banking mechanism, the agent of the commercial bank may collect small value cash deposits and process cash withdrawals, handle inward foreign remittance disbursement, facilitate small value loan disbursement and recovery of loan installments, facilitate utility bill payments, facilitate cash payments under the social safety net programme of the government, generate and issue mini bank statements, sell crop and other insurance, etc. The agents will be equipped with IT devices like Point of Sale (POS), card reader, barcode scanner, mobile phones, PIN pads and Personal Computers (PCs) that will be connected with their banks' servers using personal dial-up connections or other connections. Identification of the customer will be done through a PIN/ biometrics.

As a further development and deepening of the country's financial sector, a vibrant secondary market for transactions and trading of government securities is considered to be very important. In this regard, BB has opened up a new horizon to the financial market by launching online based transactions of government debt securities, aiming to create a vibrant secondary bond market for trading treasury bills (T-bills) and bonds (T-bonds) easily. Under this arrangement, the government securities are traded under Trade Work Station (TWS) of the market infrastructure (MI) module, unlike the usual system under which such securities are traded though the over-the-counter (OTC) mechanism. Currently, three kinds of treasury bills (91-days, 182-days and 364-days) and four types of government bonds (5-years, 10-years, 15-years and 20-years) are being traded. BB issued a circular mentioning that banks, NBFIs, insurance companies, corporate houses, mutual funds and other private organizations can participate in trading of T-bills and T-bonds through the TWS. The TWS is still in its developing stage and it is expected that TWS will be able to attract financial institutions and households to the government securities.

To create a disciplined environment in the money market, an automated Credit Information Bureau (CIB) service has been implemented to access credit related information for the prospective and existing borrowers. Banks and financial institutions can access updated credit information managed in the CIB database anytime and they can generate credit reports from CIB online.

The Microcredit Regulatory Authority (MRA) has already developed its databank comprising detailed information on licensed Microfinance Institutions (MFIs). These MFIs submit the half-yearly reports through 'Online Report Submission Tools' to the MRA.

Chapter 9

Development in the Financial System

Efficient and effective financial systems are the sound and sustainable foundation of a country's economic development. With a view to achieve greater efficiency, stability and transparency in the financial system, a number of reforms were initiated in CY12. Some notable ones are appended below:

9.1 Facilitating the Lender of Last Resort

With an aim to reduce systemic risk, BB is going to strengthen funding mechanisms of troubled banks, especially the framework of lender of last resort policy. In this regard, BB has issued guidelines on uniform accounting procedures for Repo transactions of government securities by all scheduled banks and financial institutions acting as the primary dealer banks. The role of BB as the lender of last resort helps the institutions to offset liquidity risk. To this end, it has been decided to consider only Collateralized REPO Transactions instead of outright buy/sell for taking liquidity support from BB by the primary dealer banks of government securities. As Bangladesh Bank is the ultimate source of liquid funds to the financial system, so to cover the temporary end-of-day shortfalls in settlement balances, and to lend to institutions that are judged to be solvent in order to mitigate moral hazard that can arise from liquidity problems, a concrete framework is under consideration.

9.2 Customers' Interests Protection Centre

Protection of customers' interests is the prerequisite for public confidence in the financial system. In this regard, BB has established a special desk known as 'Customers' Interests Protection Centre' (CIPC) in its head office and branch offices, followed by creating a Financial Integrity and Customer Services Department. The main objectives of the CIPC are protecting the interests of the customers of banks & financial institutions (FIs) within the legal and regulatory frameworks, addressing the grievances of customers, and attending the complaints received against banks/FIs or any of their officials; thereby improving the banker-customer relationship and ensuring the standard of customer service of the banks/FIs throughout Bangladesh.

9.3 Large Loans monitoring software

About 30 percent of the banks' total loans are in the hands of a few large borrowers, which could create a severe liquidity or solvency crisis at some point in the entire banking system. Against the backdrop of various cases of fraud, BB introduced 'Large Loan Monitoring Software' in February 2013 with a view to prevent the recurrence of such scams and to provide for closer monitoring of large loans from origin to payoff. Under the new system banks will have to maintain a database of the large borrowers and make the data available online for BB

to get an idea about the nature, evolution and future of the loans. The software will enable BB to better monitor emerging concentration risk, both for individual institutions and for the banking sector as a whole, which is a threat to financial stability from both asset quality and liquidity standpoints.

9.4 UNODC software solution for Financial Intelligence Units

Bangladesh Bank is continuously upgrading its regulatory and supervisory capabilities to address the emerging new challenges in the financial sector. In this perspective, 'goAML' software has been procured for the Bangladesh Financial Intelligence Unit (BFIU) of BB with a view to combating international terrorist financing and money laundering that can threaten the security and stability of financial institutions and systems, undermine economic prosperity and weaken governance systems. It is an integrated database and intelligent analysis system intended for use by Financial Intelligence Units worldwide. In short, it is an online reporting system. The goAML solution is executed in three steps: collection, analysis (rule-based analysis, risk-score and profiling) and dissemination (escalate to law enforcement and seek feedback). It provides a facility for the rapid exchange of information between the FIU, financial institutions, law enforcement, and judicial authorities, while ensuring confidentiality of the data collected.

9.5 Money laundering prevention

Money laundering threatens the credibility of financial institutions and exposes the financial system to various risks. That is why there is a growing need for implementing international standards on banking supervision related to Anti-Money Laundering (AML)/Combating the Financing of Terrorism (CFT) to protect and reinforce financial stability. Keeping this in mind, the BFIU has played a major role in drafting/enacting the Money Laundering Prevention Act (MLPA), 2012 and the Anti-Terrorism (Amendment) Act, 2012. Both the Acts have empowered BB to perform the anchor role in combating money laundering (ML) & terrorist financing (TF) through issuing instructions and directives for reporting agencies and building awareness among all financial service providers, not only banks and FIs, such as post offices (especially for postal remittances from aboard and postal transfer within Bangladesh), insurance companies functioning in Bangladesh, capital market intermediaries, and money changers. Moreover, for better international cooperation, the Mutual Legal Assistance Act on Criminal Matters (MLA Act), 2012 has been enacted, with the significant participation of BFIU.

BFIU has developed the 'National Strategy for Anti Money Laundering and Combating Financing of Terrorism 2011-2013'. The National Coordination Committee (NCC), headed by the honorable Finance Minister, has approved the strategy paper. A Working Committee has been formed to support the NCC and to implement its decisions. Finally, in taking its place on the world stage of AML/CFT activities, BFIU has signed MoUs with the FIUs of South Africa and Mongolia during the year 2012 for sharing information and intelligence on ML/TF issues.

9.6 Submission of FDI information on half-yearly basis

To judge the level of stability, trends in foreign direct investment (FDI) could be a good indicator. If FDI is slumping, it may indicate a generalized decline in confidence that could negatively affect financial institutions, or it could motivate policymakers to take corrective measures to restore the balance of payments, such as raising interest rates. On the other hand, if FDI is booming, it might also destabilize the economy and the financial sector by provoking asset price bubbles.

In this regard, BB has directed all commercial banks to submit information on FDI through the Bangladesh Bank's web portal on a half-yearly basis, starting from the reporting period January-June 2012. The banks submit the report with all supporting documents within three months from the end of the half-year deadline on a rationalized input template to the BB's Enterprise Data Warehouse.

9.7 Core Banking Software Installation and Inter-branch Connectivity Establishment

BB has already introduced core banking software and directed all of its branch offices to launch online services for core banking activities, such as clearing cheques and refinancing services to banks. The new system will help the financial institutions to turn into IT driven banking organizations, centralizing their information collection, processing, storage and dissemination with a prime objective to provide faster, efficient and cost effective banking service for maximizing the customer's satisfaction. A centralized core banking system was a prime need to reap the benefits of such products since the growth in electronic payments accelerated over the couple of years and innovative, multi-channel payments continued growing on the retail. Besides, the fund managers of the respective banks will be able to check their accounts instantly whether the transaction has been settled with BB smoothly.

9.8 Special Diagnostic Examination of the banks: Quick Review Report (QRR)

With a view to analysing banks' overall condition, financial disclosure requirements and financial position (capital, asset, management, earnings, liquidity and risk sensitivity) on a half yearly (March-September) basis, BB introduced a new analytical off-site report in 2012 named quick review report (QRR). This report focuses on major risks existing in the bank and recommends possible solutions in brief. It helps BB senior management to have a clear idea about the concerned banks and suggests to them remedial measures.

9.9 'National Payment Switch' for e-transactions

BB established a National Payment Switch (NPS) with an aim to facilitate faster economic growth through expansion of business activities across the country. The main objective of the NPS is to create a common platform for payments originating from different delivery channels and existing shared switches in order to facilitate inter-bank electronic transactions. The NPS will bring interoperability of the existing e-payment networks into liaison with the

Government's payment and settlement issues. It will act as an electronic clearing house and ensure real time transactions, settlement of funds will be executed at the day end, which may lead to a real time gross settlement system (RTGS) in future. The NPS will facilitate expansion of the card-based payment networks substantially and promote e-commerce, m-commerce and paperless transaction throughout the country. This system will reduce the cost of transaction for banks as well for customers, as banks will not be required to pay a network fee to Visa or Master Card companies. Besides, it will reduce the use of cash significantly and cut back on the circulation of fake bank notes in the economy.Introduction of the NPS will enhance BB's capability in conducting monetary policy and contribute to stability of the financial system and the economy as a whole.

9.10 Stock Exchange Demutualization in Bangladesh

By demutualization, a stock exchange's mutual ownership structure is changed to a share ownership structure, therefore segregating ownership, management and functionality. In response to technological change, globalization, growing competition and more significantly, concern for investors' interests, stock exchanges are embarking upon a process of demutualization that is switching from club-like mutual organizations, where traders/brokers are the owners of the exchange as well as recipients of its services, to a share ownership structure. In our country, demutualization of both the exchanges is at the centre of the current reform initiatives taken by the government surrounding the capital market. In line with the government's agenda, both the stock exchanges have made significant progress in this respect. The Dhaka Stock Exchange (DSE) approved the draft act on 26 June 2012, launching demutualization of the stock exchange at a board meeting with a view to bringing more transparency and accountability in the stock market. After the stock market crash of 2011, a probe committee recommended demutualization of the bourses. DSE will set the trading rights criteria when it is completely demutualized. It is noteworthy that 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. The Finance Minister has agreed to provide the tax-free benefits for five years after demutualization of the exchange.

9.11 Monitoring Systems for Authorized Dealer (AD) Branches

In February 2013 BB introduced a Foreign Exchange Transaction Monitoring Dashboard to ensure continuous offsite monitoring system on banks' authorized dealer branches transactions. The Dashboard represents summarized views of all foreign exchange transactions of Bangladesh in a time-befitting measure. The system includes Export, Import, Inland Bills Purchased, Back to Back L/C issue & Acceptance issue, Inward remittance(Wage Earners' remittance and other) and Outward remittance(Traveling and Miscellanies). BB has already provided User ID and passwords to CEOs of commercial banks and they can monitor their own foreign exchange transactions.

Usage of the Dashboard will make foreign exchange transaction monitoring much more effective and efficient because it will help the concerned authority to tackle embezzlement and forgery in the banking sector, such as purchasing fake inland documentary bills for back-to-back LC. Besides, from now on it is possible to know the bank-wise outstanding inland documentary bills and the amount of bills of acceptance to be given by a branch of a bank in a day.

9.12 Macroprudential supervision

Risk is ubiquitous in the real world. Banks, therefore, should manage their risk efficiently to survive in this extremely uncertain world. It becomes more challenging when banks appear as complex organizations with multiple products, subsidiaries and different jurisdictions of operation. The future of banking will certainly rest on risk management dynamics. Only those banks that have efficient risk management systems will survive in the market in the long run. For example, the banks' involvement in the capital markets, directly and indirectly through subsidiaries overseen by the Securities and Exchange Commission (SEC), illustrates that major policy issues cannot be dealt with through single function silos. Effective consolidated supervision requires strong, cooperative relationships between the BB and relevant primary supervisors and functional regulators. These relationships respect the individual statutory authorities and responsibilities of the respective supervisors and regulators and provide appropriate information flows and coordination.

BB continues to work, both independently and in conjunction with other domestic supervisors and functional regulators on a number of other initiatives to strengthen supervisory approaches and reinforce expectations for sound practices in response to recent lessons learned, and has introduced a centralized consolidated supervisory unit to monitor the combined functions of the banks, NBFIs and their subsidiary affiliates (security houses, foreign exchange, and insurance activities), adopting a systemic approach. The Financial Stability Department has been established with this aim. Out of 47 scheduled banks, 32 have their own subsidiaries. Of these 30 are consolidating their assets for the purpose of capital adequacy. Those banks that are not consolidating are deducting their equity exposures in subsidiaries in the calculation of capital while computing capital on a solo basis as instructed through the Basel II regulation of Bangladesh Bank.

A coordination council comprising Bangladesh Bank, the SEC, the IDRA, and the Ministry of Finance has been established and a MOU has been signed among them in September 2012. The main objective of this council is to enhance financial stability through improved coordination among regulators. The Governor of Bangladesh Bank is acting as the Chairman of the council. The council has the following specific mandates:

i) Macro-prudential oversight of the financial system and contingency planning;

ii) Providing a forum for the review of financial sector policy issues and identification of needed amendments to the legal and regulatory framework, and

iii) Serving as a high-level forum for coordination and information sharing for the purpose of consolidated supervision.

The coordination committee so far has decided to develop an inspection manual for the ECAIs and bring them under regular supervision. The committee also has emphasized smooth coordination between SEC and BB to implement and enforce rules for ECAIs. A committee has been formed to inspect merchant banks comprising officials from BB and SEC under chairmanship of an Executive Director of SEC. These measures could help banks to manage their risk from non-traditional banking activities in a coordinated manner as well as establishing stability in the whole financial system more comprehensively.

Appendices

Table I Banking Sector Aggregate Balance Sheet

Particulars	*Amount in Billion BDT*				Change (%)	
	2009	2010	2011	2012	2010 to 11	2011 to 12
Property & Assets:						
Cash in Hand (including FC)	37.4	52	59.7	81.1	14.8%	35.8%
Balance with BB & SB (including FC)	256.6	300.6	399.5	450.8	32.9%	12.8%
Balance with other Banks & FIs	140.5	146.6	155.9	244.7	6.3%	57.0%
Money at Call & Short Notice	49.7	43.9	128.1	66.8	191.8%	-47.8%
Investments:						
Government	532.2	490.8	662.1	972.2	34.9%	46.8%
Others	44.1	98.5	131.3	141.3	33.3%	7.6%
Total	576.1	589.3	793.4	1113.4	34.6%	40.3%
Loans & Advances:						
Loans, CC, OD etc.	2361.6	2973.4	3525	4098.4	18.6%	16.3%
Bills purchased &Disct.	131.6	225.3	267.5	288.2	18.7%	7.7%
Total	2493.2	3198.6	3792.5	4386.7	18.6%	15.7%
Fixed Assets	61.3	101.7	143.7	162.1	41.3%	12.8%
Other Assets	316.2	421.1	401	488.1	-4.8%	21.7%
Non-banking Assets	1.1	1.1	1.2	36.9	9.1%	2978.9%
Total Assets	3932.2	4855	5875	7030.7	21.0%	19.7%
Liabilities:						
Borrowings from other Banks/FIs/Agents	122	159.8	226.3	316.0	41.6%	39.6%
Deposits & Other Accounts:						
Current Deposit	544.3	712.7	992.9	989.6	39.3%	-0.3%
Bills Payable	48.7	59.8	65.3	76.0	9.2%	16.3%
Savings Deposit	731.7	852.4	933.7	972.6	9.5%	4.2%
Fixed/Term Deposit	1805.9	2156.7	2583.2	2985.6	19.8%	15.6%
Other Deposits				474.4		
Total	3130.6	3781.6	4575.1	5498.2	21.0%	20.2%
Other Liabilities	406.9	494.8	546.4	640.6	10.4%	17.2%
Total Liabilities	3659.5	4436.2	5347.8	6454.7	20.5%	20.7%
Capital/Shareholder's Equity	272.7	418.7	527.1	575.9	25.9%	9.3%
Total Liabilities & Shareholder's Equity	3932.2	4855	5874.9	7030.7	21.0%	19.7%
Off-balance Sheet Items	911.6	1985.8	1814.6	1871.25	-8.6%	3.1%

Table II Banking Sector Aggregate Share of Assets

(Amount in billion BDT)

Particulars	2010	% of Total Assets	2011	% of Total Assets	2012	% of Total Assets
Property & Assets:						
Cash in Hand (including FC)	52	1.1	59.7	1	81.1	1.2
Balance with BB & SB (including FC)	300.6	6.2	399.5	6.8	450.8	6.4
Balance with other Banks & FIs	146.6	3	155.9	2.6	244.7	3.5
Money at Call & Short Notice	43.9	0.9	128.1	2.2	66.8	1.0
Investments:						
Government	490.8	10.1	662.1	11.3	972.2	13.8
Others	98.5	2.1	131.3	2.2	141.3	2.0
Total	589.3	12.1	793.4	13.5	1113.4	15.8
Loans & Advances:						
Loans, CC, OD etc.	2973	61.2	3525.1	60	4098.4	58.3
Bills purchased & Discounted	225.2	4.6	267.5	4.6	288.2	4.1
Total	3199	65.9	3792.5	64.6	4386.7	62.4
Fixed Assets	101.7	2.1	143.7	2.45	162.1	2.3
Other Assets	421.1	8.7	401.1	6.8	488.1	6.9
Non-banking Assets	1.1	0.1	1.2	0	36.9	0.5
Total Assets	4855	100	5874.9	100	7030.7	100

Table III Banking Sector Aggregate Share of Liabilities

(Amount in billion BDT)

Particulars	2010	% of Total Liabilities	2011	% of Total Liabilities	2012	% of Total Liabilities
Liabilities:						
Borrowings from other Banks/FIs/Agents	159.8	3.6	226.3	3.9	316.0	4.5
Deposits & Other Accounts:						
Current Deposit	712.7	16.1	992	16.9	989.6	14.1
Bills Payable	59.8	1.4	65.2	1.1	76.0	1.1
Savings Deposit	852.4	19.2	933.7	15.9	972.6	13.8
Fixed/Term Deposit	2156.7	48.6	2583.2	44.0	2985.6	42.5
Other Deposits					474.4	6.7
Total	3781.6	85.3	4574.1	81.7	5498.2	78.2
Other Liabilities	494.9	11.3	546.4	9.3	640.6	9.1
Total Liabilities	4436.3	100	5347.8	91	6454.7	91.8
Capital/Shareholder's Equity	418.8	9.4	527.1	8.9	575.9	8.2
Total Liabilities & Shareholder's Equity	4855	-	5874.9	-	7030.7	-

Table IV Banking Sector Aggregate Income Statement

Particulars	Amount in Billion BDT				Change (%)	
	2009	2010	2011	2012	2010 to 2011	2011 to 2012
Interest Income	271.2	321.7	442.8	572.1	37.6	29.2
Less: Interest Expense	186.8	200.2	297.5	418.3	48.6	40.6
Net Interest Income	84.4	121.5	145.3	153.8	19.6	5.9
Non-Interest/Investment Income	118.4	164.8	168.5	186.4	2.2	10.6
Total Income	202.9	286.4	313.8	340.2	9.6	8.4
Operating Expenses	86.6	115.5	127.0	142.9	10.0	12.6
Profit before Provision	116.2	170.9	186.8	197.3	9.3	5.6
Total Provision	26.1	35.6	44.7	86.4	25.6	93.4
Profit before Taxes	90.1	135.3	142.1	110.8	5.0	(22.0)
Provision for Taxation	35.9	52	66.9	66.2	28.7	(1.1)
Profit after Taxation/Net Profit	54.1	83.3	75.2	44.66	(9.7)	(40.6)

Table V Banking Sector Assets, Deposits & NPL Concentration (CY12)

(Amount in billion BDT)

Assets	Top 5 banks	Other banks	Top 10 banks	Other banks
Amount	2367.9	4662.8	3367.1	3663.6
Share (%)	33.7%	66.3%	47.9%	52.1%
Deposit	Top 5 banks	Other banks	Top 10 banks	Other banks
Amount	1833.5	3470.6	2603.0	2701.1
Share (%)	34.6%	65.4%	49.1%	50.9%

Table VI Banking Sector 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	-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	242.39	189.77	-52.62

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

Table VIII Classified Loan Concentration Ratio (CY12)

(Amount in billion BDT)

Particulars	Concentration	
	Amount of NPL	% of Total
Worst 5 Banks	268.0	62.7%
Rest 42 Banks	159.3	37.3%
Banking Sector (47 Banks)	427.3	100.0%
Worst 10 Banks	312.8	73.2%
Rest 37 Banks	114.5	26.8%
Banking Sector (47 Banks)	427.3	100.0%

Table IX Classified Loan Composition (CY12)

(Amount in billion BDT)

Particulars	Amount	% of Total
Sub-Standard	81.4	19.1%
Doubtful	60.8	14.2%
Bad & Loss	285.0	66.7%
Total	**427.3**	**100.0%**

Table X Banking Sector Deposits Breakdown (CY12)

(Amount in billion BDT)

Items	Amount	% of Total Deposit
Current deposits	989.56	18.0
Bills payable	75.97	1.4
Savings deposits	972.64	17.7
Term deposits	2985.56	54.3
Other Deposits	474.43	8.6
Total deposit	**5498.16**	**100.0**

Table XI Banking Sector Call Money Investment & Borrowing

Items	CY10	CY11	% of Change	CY12	% of Change
Borrowings	159.8	226.2	41.6%	316.0	39.7%
Call money	43.9	128.1	191.8%	66.8	-47.8%

Table XII Banking Sector Selected Ratios

Ratio	CY09	CY10	CY11	CY12
ROA	1.4	1.7	1.3	0.6
ROE	19.9	19.9	14.3	7.8
Net Interest Margin	2.6	3.1	3.0	2.8
Asset Turnover	4.2	5.9	5.3	4.8
Interest Income to Total Assets	6.9	6.6	7.5	8.1
Net- Interest Income to Total Assets	2.2	2.5	2.5	2.2
Non-Interest Income to Total Assets	3	3.4	2.9	2.7
Non-interest expense to Total Income	42.7	40.3	40.5	42.0
Capital Adequacy Ratio	11.7	9.3	11.3	10.46
Classified Loans to Total Loans	9.2	7.1	6.2	10.0
Classified Loans to Capital	79.7	54.8	43.6	74.2
Provision to Classified Loans	61.3	65.1	63.8	44.4

Table XIII Banking Sector ROA & ROE (CY12)

ROA	Number of Banks	ROE	Number of Banks
Up to 2.0%	41	Up to 5.00%	13
> 2.0 to 3.0	2	> 5.00 to 10.00	13
>3.0to 4.0	3	>10.00 to 15.00	13
>4.0	1	>15.00	8

Table XIV Banking Sector Year-wise CDR

Year	Deposits (Excluding Inter-bank)	Credits (Excluding Inter-bank)	Credit-Deposit Ratio
2006	1829.3	1394.6	76.24%
2007	2116.1	1600.2	75.62%
2008	2527.6	1963.9	77.70%
2009	3042.8	2334.8	76.73%
2010	3689.2	2958.8	80.20%
2011	4509.8	3792.5	84.09%
2012	5396.0	4318.7	80.04%

Table XV Banking Sector CDR in CY12

Range	Number of Banks
Up to 80.00%	28
> 80.00% to 90.00%	14
> 90.00% to 100.00%	2
>100.00% to 110.00%	1
>110.00%	2
Total	47

Table XVI Banking Sector Year-wise Deposit and Lending Rate

Year	Bank Rate	Deposit Rate	Lending Rate	Spread
2005	5	5.9	11.25	5.35
2006	5	6.99	12.6	5.61
2007	5	6.84	12.78	5.95
2008	5	7.09	12.4	5.32
2009	5	6.29	11.51	5.22
2010	5	6.08	11.34	5.26
2011	5	7.52	13.03	5.51
2012	5	8.26	13.77	5.51

Table XVII Banking Sector Month-wise Deposit and Lending Rate

Month	Deposit rate	Advance rate	Spread
12-Jan	7.86	13.49	5.63
12-Feb	7.95	13.63	5.68
12-Mar	8.11	13.69	5.58
12-Apr	8.17	13.72	5.55
12-May	8.25	13.70	5.45
12-Jun	8.15	13.75	5.60
12-Jul	8.30	13.77	5.47
12-Aug	8.34	13.90	5.56
12-Sep	8.40	13.93	5.53
12-Oct	8.53	13.95	5.42
12-Nov	8.53	13.94	5.41
12-Dec	8.47	13.80	5.33

Table XVIII Islamic Banks Aggregate Balance Sheet

Particulars	Amount in Billion BDT				Change(%) 2010 to 11	Change(%) 2011 to 12
	2009	2010	2011	2012		
Property & Assets:						
Cash in Hand (including FC)	4.1	7.3	9.3	12.2	27.4	31.6
Balance with BB & SB (including FC)	57.9	64.1	77.3	104.0	20.6	34.6
Balance with other Banks & FIs	14.9	13.4	33.2	80.8	147.8	143.4
Money at Call & Short Notice	14.5	19.4	24.8	0.0	27.8	
Investments:						
Government	18.8	21.2	26.9	41.8	26.9	55.3
Others	3.4	6.6	15.9	12.5	140.9	-21.1
Total	22.2	27.8	42.7	54.3	54.0	27.2
Investments & Advances:						
Investments &Advances	414.5	527.8	644.9	801.6	22.2	24.3
Bills Purchased &Discounted	27.6	46.3	52.3	69.7	13	33.3
Total	442	574.1	697.2	871.2	21.4	25.0
Fixed Assets	10.3	12.1	14.3	18.7	18.2	31.0
Other Assets	9.3	15.4	24.3	43.4	57.8	78.7
Non-banking Assets	0	0	0	0.0	0	
Total Assets	576	733.6	923.2	1184.8	25.8	28.3
Liabilities:						
Borrowings from other Banks/FIs/Agents	15.1	21.4	31.1	31.1	45.3	0.1
Deposits & Other Accounts:						
Current Deposit	58.7	86.8	241.1	91.4	177.8	-62.1
Bills Payable	5.4	6.8	7	11.3	2.9	62.0
Savings Deposit	115.5	136.4	181.9	183.9	33.4	1.1
Fixed/Term Deposit	311.5	387.1	346.1	605.6	-10.6	75.0
Other Deposit				112.7		
Total	491	617.1	776.1	1004.9	25.8	29.5
Other Liabilities	32.7	40.4	49.9	66.3	23.5	32.9
Total Liabilities	538.7	678.9	857.1	1102.4	26.2	28.6
Capital/Shareholder's Equity	37.2	54.7	66.1	82.4	20.8	24.7
Total Liabilities & Shareholder's Equity	**576**	**733.6**	**923.2**	**1184.8**	**25.8**	**28.3**
Off-balance Sheet Items	138.4	241.1	255.8	258.6	6.1	1.1

Table XIX Islamic Banks Aggregate Income Statement

Particulars	Amount in Billion BDT				Change (%) 2010 to 11	Change (%) 2011 to 12
	2009	2010	2011	2012		
Profit Income	46.97	55.07	80.7	115.45	46.5	43.1
Less: Profit Expenses	31.49	35.12	52.2	77.14	48.6	47.8
Net Profit Income	15.48	19.95	28.5	38.31	42.9	34.4
Non-Profit/Investment Income	10.27	17.94	15.1	16.99	(15.8)	12.5
Total Income	25.75	37.89	43.6	55.30	15.1	26.8
Operating Expenses	9.27	13.04	15.9	20.06	21.9	26.2
Profit before Provision	16.48	24.85	27.7	35.24	11.5	27.2
Total Provision	5.5	6.32	6.9	8.01	9.2	16.0
Profit before Taxes	10.98	18.53	20.8	27.24	12.3	30.9
Provision for Taxation	5.27	6.86	11.1	13.81	61.8	24.4
Profit after Taxation/Net Profit	5.71	11.66	9.7	13.43	(16.8)	38.5

Table XX Share of Islamic Banks in the Banking Sector (CY12)

(Amount in billion BDT)

Particulars	All Banks	Islamic Banks	Conventional Banks	Share of Islamic Banks	Share of Conventional Banks
Property & Assets:					
Cash in hand	81.1	12.2	68.8	15.1	84.9
Due from BB & other banks/FIs	762.4	184.8	577.5	24.2	75.8
Investments in securities	1113.4	54.3	1059.1	4.9	95.1
Investments (Loans & advances)	4386.7	871.2	3515.4	19.9	80.1
Other Assets	687.1	62.1	625.0	9.0	91.0
Total Assets	7030.7	1184.8	5845.9	16.9	83.1
Liabilities:					
Due to financial institutions	316.0	31.1	284.8	9.8	90.2
Total deposits	5498.2	1004.9	4493.2	18.3	81.7
Other liabilities	640.6	66.3	574.3	10.4	89.6
Total Liabilities	6454.7	1102.4	5352.4	17.1	82.9
Capital/Shareholder's Equity	575.9	82.4	493.5	14.3	85.7
Total Liabilities & Shareholder's Equity	7030.7	1184.8	5845.9	16.9	83.1
Off-balance Sheet Items	1871.3	258.6	1612.7	13.8	86.2

Table XXI Selected Ratios of Islamic Banks and the Banking Sector (CY12)

Ratio	Overall Banking Sector	Islamic Banking Sector
ROA	0.8	1.1
ROE	10.56	16.8
Net Profit Margin	0.77	1.33
Profit (Interest) Income to Total Assets	8.1	9.7
Net-profit (Interest) Income to Total Assets	4.8	4.7
Non-Profit (Interest) Income to Total Assets	2.0	1.7
Investment (Credit)-Deposit Ratio	79.8	87.5
Capital Adequacy Ratio	10.5	11.7
Classified Investment (Credits) to Investments	10.0	4.0
Classified Investment (Credits) to Capital	76.0	43.5

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

Table XXII Islamic Banks' Capital Adequacy Ratio (CY12)

CAR	Number of Islamic Banks
Below 10.00%	1
10.00% to 11.00%	1
11.00% to 13.00%	3
>13.00	2
Total	**7**

Table XXIII Islamic Banking Sector Investment-Deposit Ratio (as of 31.12.2012)

(Amount in billion BDT)

Items	Islamic Banks	Islamic Branches/Windows	Islamic Banking Sector
Deposits (Excluding Interbank)	977.96	63.87	1041.83
Credits (Excluding Interbank)	857.89	47.4	905.29
IDR	87.72	74.21	86.89

Table XXIV Performance of Dhaka Stock Exchange for CY2012

Indicator	As on 30th December, 2012	As on 30th December, 2011	Change (%)
Issued Capital	Tk. 949.88 Billion	Tk. 878.91 Billion	8.07
DGEN Index	4219.31	5257.61	-19.75
Market Capitalization	Tk. 2403.56 Billion	Tk. 2616.73 Billion	-8.15
Trade Volume (Yearly)	21.69 Billion	16.97 Billion	27.81
Turnover (Yearly)	Tk. 1001.08 Billion	Tk. 1560.91 Billion	-35.87
Price Earnings Ratio	12.07	13.68	-11.77
Number of Securities	515	501	2.79
Number of companies	242	232	4.31

Table XXV NBFIs' Aggregate Balance Sheet, Income Statement & Other Information

(Amount in billion BDT)

Items	CY10	CY11	CY12*
Property & Assets:			
Cash in hand	0.01	0.02	0.2
Balance with other banks and FIs	19.9	20.2	31.7
Money at call & short notice	0.004	0.003	0.7
Investment in government securities	3.1	3.0	2.4
Other investments	13.6	13.7	13.6
Lease finance	59.8	65.1	54.8
Term finance	109.2	134.8	192.6
Fixed assets	7.6	4.6	5.4
Other assets	30.3	34.8	25.2
Total assets	**243.6**	**276.4**	**326.6**
Liabilities:			
Borrowing from other banks and FIs	69.1	78.4	84.8
Deposits	99.8	116.4	145.2
Other liabilities	32.1	24.2	37.0
Total liabilities	201.0	219.1	267.0
Shareholders' equity (Capital)	42.6	57.3	59.6
Total liabilities and shareholders' equity	**243.6**	**276.4**	**326.6**
Income Statement:			
Interest Income	22.1	28.5	35.0
Less: Interest Expense	(14.6)	(19.8)	(25.3)
Net Interest Income	**7.5**	**8.7**	**9.7**
Investment Income	7.2	2.7	2.3
Add: Commission, exchange and brokerage	1.3	0.5	0.2
Add: Other Operating Income	3.9	2.9	2.7
Non-Interest income	**12.4**	**6.0**	**5.2**
Total Operating Income (Net II + Non-II)	**19.9**	**14.7**	**14.9**
Operating expenses	7.9	3.5	4.0
Profit before provisions	**11.9**	**11.2**	**10.9**
Total provisions	2.0	1.2	1.9
Profit before taxes	**9.9**	**10.0**	**9.0**
Tax Provisions	3.8	3.1	2.9
Net profit after taxes	**6.1**	**7.0**	**6.1**
Cost of deposits & borrowings (percent)	9.7	10.9	11.0
Average spread (percent)	6.1	6.8	3.0
Non-performing loans	10.5	10.3	13.7
Loan loss provisions (required)	5.9	6.0	6.9
Loan loss provisions (maintained)	6.9	7.0	7.7
Loan loss provisions surplus	**1.0**	**0.9**	**0.8**
Number of government-owned NBFIs	1	3	3
Number. of local NBFIs	18	18	18
Number of NBFIs under foreign joint venture	10	10	10
Total number of NBFIs	**29**	**31**	**31**
Number of branches	108	161	169
Number of employees	-	-	3032

Data source: Department of Financial Institutions & Markets, BB. Other assets and other liabilities figure for CY10 & CY11 have been revised.

* Unaudited data

Table XXVI NBFIs' Summary Performance Indicators

(in Percent)

Indicators	CY2010	CY2011	CY2012
Profitability & Efficiency			
Return on Assets (ROA)	2.5	2.5	1.9
Return on Equity (ROE)	14.4	12.1	10.2
Net Interest Margin (NIM)	4.3	4.3	3.9
Asset Turnover*	8.2	5.3	4.5
Interest Income to Total Assets	9.1	10.3	10.7
Net- Interest Income to Total Assets	3.1	3.1	3.0
Non-Interest Income to Total Assets	5.1	2.2	1.6
Operating Expense to Operating Income	39.9	23.9	26.7
Cost of Deposits & Borrowings	9.7	10.9	11.0
Average Spread	6.1	6.8	3.0
Asset Quality			
Classified Loans & Leases to Gross Loans & Leases	5.9	4.9	5.5
Classified Loans & Leases to Capital	24.8	18.0	22.1
Loan Loss Provisions to Capital	16.3	12.2	12.5
Loan Loss Provisions to Classified Loans & Leases	65.7	67.5	56.3
Capital Adequacy			
Capital to Risk-Weighted Assets	-	18.3	19.4
Capital to Total Assets	17.5	20.7	19.0
Income Composition			
as Percent of Operating Income			
Interest Income	111.3	193.7	235.4
Investment Income	36.3	18.2	15.7
Fee-based Income	6.5	3.1	1.4
Other Income	19.5	19.8	17.9
Asset Composition			
Sector-wise Distribution of Loans & Leases to Total Loans & Leases			
Housing	-	19.3	17.6
Trade & Commerce	-	9.7	11.2
Textile	-	5.4	5.4
Garments & Knitwear	-	4.9	4.5
Transport & Aviation	-	4.9	4.3
Merchant Banking	-	1.6	5.1
Margin Loan	-	8.6	4.5
Agriculture	-	1.2	1.4
Others (including other sectors with minor share)	-	44.4	46.0

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

Table XXVII Number of Listed Securities at DSE

Date	No. of listed companies (equity)	No. of listed securities (other than companies equity securities)	Total No. of listed securities
January, 2004	248	19	267
January, 2005	237	19	256
January, 2006	247	39	286
January, 2007	255	55	310
January, 2008	266	84	350
January, 2009	276	136	412
January, 2010	236	179	415
January, 2011	218	227	445
January, 2012	232	269	501
January, 2013	242	273	515

Table XXVIII Market Capitalization and Nominal GDP

(Amount in billion BDT)

Year (FY)	Nominal GDP	Market Capitalization
2003-04	3329.7	141.9
2004-05	3707.1	212.2
2005-06	4157.3	203.5
2006-07	4724.8	411.5
2007-08	5458.2	788.8
2008-09	6148.0	1001.4
2009-10	6943.2	2276.4
2010-11	7967.0	2327.0
2011-12	9147.8	1932.4

Table XXIX Macroeconomic Variables and Market Indicators (Y-T-Y growth)

Year (FY)	C	S	I	MC	Index
1996-97	7.36	16.20	12.61	33.27	16.19
1997-98	8.79	11.79	15.64	-45.31	-39.14
1998-99	9.36	12.45	12.60	-14.11	-19.17
1999-00	7.69	11.73	11.95	13.23	2.60
2000-01	6.79	3.74	7.23	26.85	27.64
2001-02	7.54	12.73	8.03	-9.38	10.68
2002-03	9.38	16.73	11.25	11.59	4.78
2003-04	9.55	13.33	13.70	96.57	58.82
2004-05	10.67	13.08	13.67	49.58	29.89
2005-06	11.82	20.07	12.71	-4.09	-21.81
2006-07	13.50	17.72	12.79	102.23	60.45
2007-08	15.59	21.77	14.31	91.67	39.60
2008-09	12.95	10.25	13.40	26.95	0.33
2009-10	12.92	14.63	13.13	127.32	104.42
2010-11	15.91	10.02	18.21	2.22	-0.59
2011-12	14.71	17.30	16.17	-16.96	-25.25
Correlation with Index	0.14	0.08	-0.18	0.95	1.00
Correlation with MC	0.29	0.25	-0.03	1.00	0.95

C= Consumption, S= Savings, I= Investment, MC= Market Capitalization, Index= DG

Table XXX Automated Cheque Clearing Operations

(Amount in Billion BDT)

Category	CY10		CY11		CY12	
	Number	Amount	Number (in thousands)	Amount	Number (in thousands)	Amount
High Value (HV)	82	679.60	3,123	4,177.8	1,263	5,977.42
Regular Value (RV)	742	751.1	17,954	5,093.9	18,824	4,827.44

Table XXXI Volume of Electronic Banking Transactions

(Figures in Billion BDT)

Year	Using ATMs	Using Debit Card	Using Credit Card	Internet Banking
2010	503.67	270.9	31.4	72.1
2011	674.88	454.2	88.62	271.60
2012	965.14	561.3	162.18	307.76

Table XXXII Number of Banks Providing Electronic Banking Services

Year	Online Banking	Internet Banking	Credit Card	ATM/Debit Card
2010	**38**	**18**	**26**	**36**
2011	**40**	**24**	**26**	**38**
2012	**42**	**27**	**28**	**40**

Table XXXIII Total Exposure In Capital Market (All Banks)

(In Million BDT)

Quarter	Total Exposure	Total Capital	% of Total Capital	% of Total Liability
End March, 2012	161003.3	549933.0	29.3%	3.2%
End June, 2012	162594.4	562011.4	28.9%	3.1%
End September, 2012	172111.9	553156.3	31.1%	3.1%
End December, 2012	173485.6	544273.6	31.9%	3.0%

Source: Data and Calculation: Department of Offsite Supervision, Bangladesh Bank.

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