Bangladesh Bank

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FINANCIAL STABILITY REPORT 2016

Financial Stability Department
Bangladesh Bank

Advisor:

Shitangshu Kumar Sur Chowdhury, Deputy Governor

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2. Dr. Md. Kabir Ahmed, General Manager

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2. Jiban Krishno Roy, Deputy General Manager
3. Mohammad Jamal Uddin, Deputy General Manager

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Debt Management Department (DMD)
Department of Financial Institutions and Markets (DFIM)
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GOVERNOR'S MESSAGE

A resilient, well-regulated and well-supervised financial system is essential for both domestic and international economic stability. In its effort to build a strong, resilient financial system, Bangladesh Bank practices the ethos of regular risk assessment and encourages similar practices in the overall financial community. Financial Stability Report 2016, the 7th issue of the yearly publication of Bangladesh Bank, conveys such in-house assessment of stability risks to different stakeholders so that they can be addressed timely and in a prudent manner.

This issue of Financial Stability Report discusses recent macroeconomic and financial developments in the global economy and their possible impacts on the Bangladesh economy with special attention to financial stability. The global financial system is presently facing a complex set of challenges with some countries gradually recovering from the global crisis, while others, like Europe confronting renewed turbulence. Key global issues like new US policies following the recent US election, Brexit, falling trends of global trade, rise in sovereign bond yields in the advanced economies, rapid credit expansion in China, vulnerability in the sovereign debt in Euro area have been significantly contributing to the global financial imbalance.

Amid global economic shocks, the Bangladesh economy remained buoyant in 2016. Real GDP remained at 7% plus growth trajectory while inflation remained within the target of 5.8%. Despite declining inward remittance and moderating export growth, Bangladesh holds adequate reserves of foreign exchange which is equivalent to eight months of import cover. Robust domestic demand, stable exchange rate, and low debt-GDP ratio provide buffer against external vulnerability. Bangladesh Bank's continuous effort to upgrade the financial sector regulation and supervision in line with the global standards contributes to maintain a stable financial sector. In the year 2016, the banking sector had sufficient liquidity, notable balance sheet growth, and moderate level of sectoral concentration of loans and advances. Non-bank financial institutions also demonstrated resilience against various stress scenarios.

Taking into account the evolving risks arising from cross-country economic and financial interdependence, Bangladesh Bank remains vigilant against potential imbalances. Bangladesh Bank updated core risk guidelines on management of credit and foreign exchange risks. Further, Bangladesh Bank issued integrated risk management guidelines for financial institutions, revised guidelines for risk-based capital adequacy of banks in line with Basel III, and guidelines on commercial papers for both banks and FIs. These measures will be updated regularly to shield the financial system from any potential vulnerability.

I would urge all the financial sector stakeholders to do their best towards strengthening of our knowledge and system to address financial risks including cyber threats. I would also call for strict

compliance of corporate governance, and avoidance of reckless competition among banks and financial institutions towards making excessive profits. Bangladesh Bank has always been working closely with the financial intermediaries, other financial sector regulators, and the Government to ensure smooth functioning of the financial system.

I appreciate the efforts of Financial Stability Department in preparing this report and hope that it will greatly contribute towards building risk awareness among the stakeholders.

Fazle Kabir
Governor

DEPUTY GOVERNOR'S MESSAGE

This issue of Financial Stability Report (FSR) is released at a time when global financial stability is improving. Emerging market economies also have continued to enhance their resilience by lowering corporate leverage and reducing external vulnerabilities. However, overall financial stability risks remain elevated because of global political and policy uncertainties, especially an uptick in interest rates in the US and rise in some commodity prices, particularly crude oil, are opening new channels for negative spillovers. These major policy alterations in the advanced economies as well as emerging market economies are always watched by Bangladesh Bank (BB) to timely efficiently counter any stability threats initiating from those economies. BB is closely observing the probable impact of Brexit referendum over our economy, as UK is our third largest importer and one of the biggest remittance providers. The recent rise in US interest rate is also in our watch list. A sudden reversal of market sentiment or a global shift toward inward-looking protectionist policies could reignite capital outflows and hurt growth prospects of emerging market economies like Bangladesh.

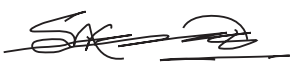
Despite global headwinds that weakened remittances, domestic macro-economic conditions remained stable. GDP recorded robust growth in FY2016 on higher private investment and exports. The current account surplus moderated, inflation slowed and exchange rate stabilized. The banking industry played a crucial role in mobilizing resources and economic growth. Financial system as a whole widened and deepened. New banks contributed in parallel to old banks in the economy. Banking system enhanced its resilience with the adoption of Basel III. Meanwhile, BB emphasized on intensifying the Macro-prudential supervision mechanism and tools to address systemic risks. BB is accommodating risk-based supervision (RBS) instead of traditional compliance based supervision of financial institutions. A number of Macro-prudential tools, e.g., Financial Projection Model (FPM), Inter-bank Transaction Matrix (ITM) and HEAT Map, have been introduced in the recent years to monitor the possible build up of stresses in the banking system. A set of tools and mechanism has been developed under contingency planning framework as a part of crisis preparedness in the interconnected markets. A Central Database for Large Credit (CDLC) has been established for early identification of vulnerabilities of large non financial corporate (NFC) and examining remedies in case of their defaults. BB has also been examining the mechanisms for determining a Higher Loss Absorbency (HLA) requirement of Domestic Systemically Important Banks (D-SIBs) and implementation of a Countercyclical Capital Buffer. However, implementation of the stated tools would largely depend on the readiness of banks in terms of their preparedness.

The report exposes an overall stable outlook of the financial system in CY2016 as a backdrop of a relatively stable macroeconomic condition. It contains both qualitative and quantitative analyses of the strengths and weaknesses as well as resilience of the individual institutions of Bangladesh

financial system along with peer group analyses. At this time, the major regulatory concern remained securing our banking industry from stressed assets. Ensuring good corporate governance, professional integrity, due diligence in the banking sector are accumulating concern for BB.

However, at present, cyber resiliency represents the most important pre-requisite for securing financial stability. Considering recent rise in global cyber threats, BB is quite aware of addressing cyber risk in a prompt and proactive manner. Promoting awareness for IT security among the stakeholders is one of the major challenges for us to safeguard our banking system.

Finally, I would like to thank all of my colleagues working with the Financial Stability Department for their enthusiastic effort in preparing the report.



Shitangshu Kumar Sur Chowdhury
Deputy Governor

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Acronyms

AD	Authorized Dealer
ADR	Advance-to-Deposit Ratio
BACH	Bangladesh Automated Clearing House
BACPS	Bangladesh Automated Cheque Processing System
BB	Bangladesh Bank
BBS	Bangladesh Bureau of Statistics
BCBS	Basel Committee on Banking Supervision
BDT	Bangladeshi Taka
BEFTN	Bangladesh Electronic Funds Transfer Network
BoP	Balance of Payment
BSEC	Bangladesh Securities & Exchange Commission
CAR	Capital Adequacy Ratio
CBSL	Central Bank of Sri Lanka
CDBL	Central Depository Bangladesh Limited
CPI	Consumer Price Index
CRAR	Capital to Risk-weighted Asset Ratio
CRM	Credit Risk Mitigation
CRR	Cash Reserve Requirement
CSE	Chittagong Stock Exchange
CY	Calendar Year
DFID	Department for International Development
DSE	Dhaka Stock Exchange
ECAI	External Credit Assessment Institutions
EDW	Enterprise Data Warehouse
FC	Foreign Currency
FCB	Foreign Commercial Bank
FDD	Foreign Demand Draft
FI	Financial Institution
FSSSPD	Financial Sector Support and Strategic Planning Department
FX	Foreign Exchange
FY	Fiscal Year
GC	Gini Coefficient
GDP	Gross Domestic Product
HBFC	House Building Finance Corporation
HHI	Herfindahl-Hirschman Index
HV	High Value
ICB	Investment Corporation of Bangladesh
IDR	Investment Deposit Ratio
IMF	International Monetary Fund
IRR	Interest Rate Risk

IT	Information Technology
ITOCD	IT Operation and Communication Department
ISDD	Information Systems Development Department
L/C	Letter of Credit
MCR	Minimum Capital Requirement
MFI	Microfinance Institution
MFS	Mobile Financial Services
MRA	Microcredit Regulatory Authority
MT	Mail Transfer
NBFI	Non-Bank Financial Institution
NDA	Net Domestic Assets
NFA	Net Foreign Assets
NFCD	Non-Resident Foreign Currency Deposit Accounts
NII	Net Interest Income
NIM	Net Interest Margin
NPL	Non-Performing Loan
NPM	Net Profit Margin
NPSB	National Payment Switch Bangladesh
NSD	National Savings Directorate
OBU	Off-shore Banking Unit
OTC	Over the Counter
PCB	Private Commercial Bank
P/E	Price Earnings
PKSF	Palli Karma-Sahayak Foundation
RBCA	Risk Based Capital Adequacy
RBI	Reserve Bank of India
REER	Real Effective Exchange Rate
RFCD	Resident Foreign Currency Deposit Accounts
RMU	Risk Management Unit
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement
RV	Regular Value
RWA	Risk Weighted Assets
SBP	State Bank of Pakistan
SCB	State-owned Commercial Bank
SDB	Specialized Development Bank
SME	Small and Medium-sized Enterprises

EXECUTIVE SUMMARY

This report conveys the assessment of Bangladesh Bank on the resilience of domestic financial system to risks and vulnerability and the actions Bangladesh Bank has taken to mitigate those in the calendar year 2016 (CY16). Also, the report discusses issues relating to development and regulation of the financial sector and structural trends which are likely to have an effect on the stability of the financial system.

In CY16, global financial environment faced elevated levels of uncertainty. After the US election, rise in sovereign bond yields in advanced economy and risks of reduced global trade created heightened stress for emerging market economies running with high levels of debt. China's rapid credit expansion, near-record level net capital outflows from there, vulnerability of sovereign debt situations in some euro-area economies created strain on the growth prospects, weakening global trade. Challenges remain to the resilience of the euro-area banking system too. Amid the stated developments in the global economy, Bangladesh financial system remained broadly resilient in the CY16.

The domestic macroeconomic situation was mostly favorable. A real GDP growth of 7.1 percent was recorded in FY16 against the growth of 6.5 percent recorded in FY15. Inflation declined to 5.9 percent in FY16 from 6.4 percent in FY15 attributable to accommodative money growth, lower fuel and commodity prices in the international market, and sufficient domestic food supply. It is noteworthy that at end-December 2016 general inflation stood at 5.5 percent against 6.2 percent of end-December 2015. Following the growth supportive monetary policy stance of Bangladesh Bank, a strong private sector credit growth was recorded during the period. Credit to the Government (gross) by the banking system recorded minor increase compared to the position of CY15. The current account balance in the balance of payments recorded notable surplus owing to the reduced deficits in trade, service and income accounts. The gross foreign exchange reserves stood at USD 32.1 billion at end-December 2016.

The banking sector appeared to be resilient, registering a moderate growth. The banking system recorded a positive growth in most of its income-earning assets in CY16; aggregate balance sheet size grew notably; loans and advances registered a higher growth compared to the growth recorded in the preceding year. Concentration of assets within a few banks reduced marginally. Also, sectoral concentration of loans and advances remained at a moderate level. In the liability structure, deposits posted nearly 11 percent growth. Insurance coverage for deposits increased in terms of the percentage of fully protected depositors.

Asset quality of the banking sector slightly deteriorated with respect to the preceding year. The gross NPL ratio of the banking sector increased slightly from 8.8 percent in CY15. Net NPL ratio increased by only 50 basis points (bps) attributable largely to higher provision shortfall in SCBs. Nearly 90 percent of the banks maintained the required provisions.

Capital to risk-weighted assets ratio (CRAR) of the banking sector remained unchanged. During the review year, the banking industry maintained a CRAR of 10.8 percent against the minimum requirement of 10 percent or 10.625 percent with Capital Conservation Buffer; the maintained CRAR remained same with respect to the position of CY15. Three SCBs are in capital erosion risk due to NPLs. The banking industry maintained a Capital Conservation Buffer (CCB), Tier-1 capital ratio and leverage ratio, reasonably higher than the respective regulatory minimum requirements.

The banking sector had adequate liquidity in CY16. The advance-to-deposit ratio (ADR) of banks increased marginally with no abrupt volatility throughout the year. Call money borrowing rate maintained a lower trend and stood at 3.6 percent. Banks were able to maintain Liquidity Coverage Ratio and Net Stable Funding Ratio, two Basel III liquidity ratios, notably higher than the minimum regulatory requirement, reflecting adequate liquidity in the banking system. Also, all banks have been successful in maintaining minimum reserve requirements (CRR and SLR).

Income generating activities of the banking sector maintained a positive trend during the review year. In CY16, increase in net interest income of banks led 17 basis points (bps) higher net interest margin compared to 1.72 percent in CY15. Return on equity (ROE) of the banking sector increased slightly while return on assets (ROA) recorded minor decrease by 6 bps. The weighted average interest rate spread registered a minor decline mainly due to a higher drop in lending rate than deposit rate.

Overseas branches of local banks maintained a steady growth in their banking activities. In CY16, the total assets of the overseas bank branches, representing less than one percent of the aggregate asset size of the banking industry, grew by nearly 26 percent, attributable mainly to the growth in the balance of these branches with the central banks and interbank market of respective jurisdictions while total liabilities increased by approximately 29 percent. Overseas branches' return on assets (ROA) demonstrated minor increase.

Islamic Shari'ah based banks showed a better performance than the overall banking sector. Aggregate assets of the Islamic Shari'ah based banks grew by 13.2 percent in CY16, 310 bps lower than their CY15 level, but 50 bps higher than that of the banking industry. Asset quality of the Islamic banks showed improvement over the previous year. All Islamic banks except one problem bank maintained the minimum CRAR. Islamic banks' overall ROA and ROE were notably higher than the corresponding industry ratios. Islamic banks have been able to comply with the liquidity reserve requirements (CRR, SLR, LCR and NSFR) of Bangladesh Bank.

New banks continued to record positive growth in their business activities in CY16. The gross NPL ratio of the new banks remained at a very low level compared to the overall industry. Moreover, these banks had no provision shortfall. The CRAR of these banks remained much higher than the minimum regulatory requirement. The profitability ratios, ROA and ROE, were higher than the industry's profitability ratio.

Overall risk exposure of the banking sector remained at a tolerable level in CY16. The Risk Weighted Asset (RWA) Density ratio maintained a lower trend. RWA for credit risks increased while the same for market risk decreased and operational risk remained unchanged in comparison with CY15 level. It is noteworthy that all the stated risks were mostly concentrated within conventional PCBs and state-owned banks operating under special attention. Credit ratings of corporate entities were mostly stable in CY16.

Financial institutions (FIs) showed mixed performance in terms of asset quality and profitability. FIs' asset size grew notably in CY16 compared to that of CY15. During the period, asset quality of FIs improved as the gross non-performing loans and leases ratio decreased slightly. Also, FIs maintained higher loan-loss provisions over the previous year. Their capital adequacy ratio (CAR) registered a minor decline while their ROA and ROE recorded moderate decline with respect to the level of CY15. Of course, the industry remained compliant regarding CRR and SLR requirement.

Results of the stress tests demonstrate a considerable resilience of the banking as well as FIs sector. Credit risk found to be a dominant factor that may erode the regulatory capital of the banking sector. Default of the largest borrowers would have the highest impact on the banks' soundness. The market and liquidity stress tests demonstrate considerable resilience of the banks and the industry as a whole to different shock scenarios. Stress tests on FIs indicate that majority of them are resilient against stressed scenarios.

Money market witnessed adequate liquidity in 2016. The banking industry as a whole did not suffer from any liquidity stress. Consequently, call money rate demonstrated a declining trend. A small fall was also recorded in the call borrowing amount. In 2016, BB introduced 07 and 14-day BB Bills for sterilization purpose as well as to continue BB's liquidity management. Issuance of short-term treasury bills remained the common instruments of public fund management.

The bond market registered a notable rise. Issuance of long-term treasury bonds increased by 21.6 percent. However, sales in the secondary market, dominated by over-the-counter (OTC) trade, recorded a drop. Apart from devolvement on BB, no mandatory devolvement on primary dealers (PD), and non-PDs was observed throughout the year.

The Dhaka Stock Exchange (DSE) recorded an increase in index value and trade volume. The main index-DSEX-along with the market capitalisation displayed a down trend during the first four months of CY16 and thereafter showed a strong positive trend to end the year on a high note. An overall uptrend was observed in the turnover to market capitalization ratio. The manufacturing sector continued to dominate the stock market while the share of the financial sector increased largely due to the increase in banks' share prices.

The financial market infrastructures have been evolving continuously to ensure an efficient and safe payment and settlement system. The National Payment Switch Bangladesh (NPSB) settled approximately BDT 68 billion in CY16 recording a 50 percent growth in payments. Mobile financial services (MFS) and electronic banking operations showed modest growth with higher volume of card-based transactions. High-value and regular value cheques, clearing through the Bangladesh Automated Cheque Processing System (BACPS) increased significantly.

The foreign exchange (FX) market remained stable. Except some fluctuations in the overall net FX liquidity position, the nominal exchange rate of Bangladesh Taka (BDT) against the US Dollar (USD) remained mostly stable for the most part of 2016. During the year, BB purchased USD 3.3 billion from domestic FX market to ease the appreciation of BDT against USD. Most of the interbank (local) FX turnover are settled in USD. In total interbank (local) FX turnover, 73 percent is settled through swaps in USD followed by 21 percent in spot.

The microfinance sector showed strong and resilient growth. Total outstanding loans of MFIs grew by nearly 24 percent while savings increased by approximately 27 percent in FY16. The borrowers-to-members ratio increased by 5.4 percent. Female members of MFIs stood at around 91 percent at the end of FY16. The NPL ratio maintained a lower trend compared to that of FY15. During the period, ROA, ROE and dependency ratio of MFIs showed positive trend.

Several developments took place in the domestic financial system having bearing on financial stability. In CY16, a number of developments took place in the financial system of Bangladesh having implications to financial system stability of the country. Some notable ones are: issuance of uniform core banking solution (CBS), revision of interest rate on agricultural and rural credit, amendment of guidelines on 'Risk based Capital Adequacy' for banks, permission to a new bank named 'Shimanto Bank Limited', investment in non-listed special purpose funds, issuance of an

integrated risk management guidelines for FIs, issuance of uniform guidelines on commercial paper , amendment of guidelines on 'stress testing for non-bank financial institutions', use of effluent treatment plant for all business entities, establishment of Integrated Supervision Management Department, development of special inspection optimization tool named 'Pre-inspection Assessment Report (PIAR)', revisions in the foreign exchange regulations, establishment of a revolving fund titled "Green Transformation Fund", developments in payment systems and debt management, releasing of monetary policy stance and revision of core risk guidelines on management of credit and foreign exchange risk, asset-liability management, and internal control and compliance.

Overall, financial system in Bangladesh remained stable and resilient to withstand any endogenous and exogenous shocks in CY16. However, Bangladesh Bank does not remain complacent with its achievement. It focused on bringing innovations in its risk management toolkits and regulations. The Bank also believes that its initiatives alone may not always suffice to withstand all sorts of imbalances in the financial system. A well coordinated and synchronized role played by other financial sector regulators, financial intermediaries, and diverse stakeholders of the financial system may help bringing efficiency in stability outcomes.

Chapter 1

OVERVIEW

The global financial environment displayed a moderate level of turbulence in the calendar year 2016. Risks remain elevated. After the US election, rise in sovereign bond yields in advanced economy and risks of reduced global trade created heightened stress for emerging market economies running with high levels of debt. China's growth has been increasingly dependent on rapid credit expansion. In addition, estimated net capital outflows from China reached its near-record levels in the second half of CY16. Also, in the case of some euro-area economies, sovereign debt situations demonstrated vulnerability to a further rise in the cost of borrowing for governments or a weakening in growth prospects, exerting contractionary impact on global trade. Challenges remain to the resilience of the euro-area banking system too. Amid the stated developments in the global economy, Bangladesh financial system remained resilient in the CY16.

The domestic macroeconomic situation was mostly favorable during the fiscal year 2016 (FY16)[1]. A real GDP growth of 7.1 percent was recorded in FY16 against the growth of 6.5 percent recorded in FY15. Inflation declined to 5.9 percent in FY16 from 6.4 percent in FY15 attributable to accommodative money growth, lower fuel and commodity prices in the international market in the first half of FY16, and sufficient domestic food supply. This is noteworthy that at end-December 2016 inflation stood at 5.5 percent against 6.2 percent of end-December 2015. Following the growth supportive monetary policy stance of Bangladesh Bank, a strong private sector credit growth of 16.8 percent was recorded during the period. Credit to the Government (gross) by the banking system increased by 5.9 percent as well. The current account balance in the balance of payments recorded an increase in surplus by 29.9 percent in FY16, owing to the reduced deficits in trade, service and income accounts. On the other hand, sizeable current account surplus contributed to a buoyant growth in net foreign assets (NFA).The gross foreign exchange reserves stood at USD 30.2 billion at the end of FY16 and at USD 32.1 billion at end-December 2016. The total outstanding official external debt, as a percentage of GDP, dropped from 12.1 percent to 11.7 percent though it increased by USD 2.1 billion in FY16.

The banking sector appeared to be resilient, registering a moderate growth in the calendar year 2016 (CY16). The banking system experienced a positive growth in most of its income-earning assets. The banking sector balance sheet size grew by 12.7 percent in which loans and advances registered a higher growth (15.3 percent) in CY16 than that of CY15 (14.8 percent). Concentration of assets within a few banks reduced marginally; sectoral concentration of loans and advances remained at a moderate level. Deposits, the highest contributor in the liability structure, posted a 10.7 percent growth albeit 180 basis points (bps) lower than that of CY15 level. The relative proportions of term deposit decreased whereas savings and current deposits increased moderately in CY16. Term deposit representing more than fifty percent of total deposits still provides sufficient stability to banks' sources of funds. Insurance coverage for deposits - BDT 100,000 per depositor per bank - also increased in terms of the percentage of fully protected depositors in Bangladesh (88.4 percent in CY16).

Asset quality of the banking sector slightly deteriorated in CY16 with respect to the preceding year. Despite a decline in gross NPL ratio of private commercial banks (PCBs), the largest and most important segment of the industry, the gross NPL ratio of the banking sector increased from 8.8 percent in CY15 to 9.2 percent in CY16 largely due to higher NPL ratios of the SCBs. Similarly, net NPL ratio increased by 50 bps mainly due to higher provision shortfall in SCBs. Due to a sizeable provision

[1]Spanning July 2015 to June 2016.

shortfall of three SCBs, further shortfall in banking sector's overall loan loss provision was recorded in CY16. Nevertheless, 51 banks out of 57 were able to maintain the required provisions. The presence of higher NPLs in SCBs and SDBs continued to enlist them in the top 5 and top 10 list of gross NPL concentrated banks.

In CY16, capital to risk-weighted asset ratio (CRAR) of the banking sector remained unchanged at the CY15 level. During the review year, the banking industry maintained a CRAR of 10.8 percent against the minimum requirement of 10 percent or 10.625 percent including Capital Conservation Buffer. Due to provision shortfall, 3 SCBs could not maintain the minimum requirement. In line with the Basel III capital framework, BB initiated Capital Conservation Buffer (CCB) requirement for banks in a phased manner from 2016. Against the regulatory requirement of 0.625 percent for CY16, banking industry maintained a CCB of 0.80 percent. The Tier-1 capital ratio was recorded at 7.9 percent, well above the minimum requirement of 5.5 percent. The banking sector has also been able to maintain leverage ratios of 4.9 and 5.2 percent on solo and consolidated basis respectively, higher than the regulatory minimum requirement of 3 percent for both cases. Pertinently, to ensure adequate capital covering all material risks of banks, BB started a series of bilateral meetings with the banks based on the findings of their Internal Capital Adequacy Assessment Process (ICAAP), a tool that focuses on banks' own internal review of their capital positions.

The banking sector enjoyed adequate liquidity in CY16. The advance-to-deposit ratio (ADR) of banks increased marginally to 71.9 percent, still remained much below the upper benchmark set by BB, with no abrupt volatility observed throughout the year. Call money borrowing rate maintained the lower trend and stood at 3.6 percent at end-December 2016, In CY16, banks were able to maintain Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) much above the minimum regulatory requirement of 100 percent indicating the prevalence of adequate liquidity in the banking system. This phenomenon is also supported by the successful maintenance of minimum Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) by all banks during this period.

Income generating activities of the banking sector maintained a positive trend during the review year. In CY16, increase in net interest income of banks led to a higher net interest margin (NIM) of 1.89 percent compared to 1.72 percent in CY15. During this period, banks' operating income decreased due to increase in non-interest expenses. However, a decline in loan loss provision by 6.3 percent resulted in an increase in net income (after tax and provision) by 4.9 percent in CY16. Return on equity (ROE) of the banking sector increased by 34 bps while return on assets (ROA) decreased by 6 bps. The weighted average interest rate spread declined from 4.8 percent in CY15 to 4.7 percent in CY16 mainly due to a higher drop in lending rate than deposit rate.

Overseas branches of local banks maintained a steady growth in their banking activities. In CY16, the total assets of the overseas bank branches grew by 25.8 percent, attributable mainly to the growth in the balance of these branches with the central banks and interbank market of respective jurisdictions. Correspondingly, the liabilities increased by 29 percent, in which deposits accounted for 61.5 percent. Net profit of overseas branches increased significantly by 34 percent, resulting in an increase in ROA by 8 bps in CY16. However, the overseas branches together constituted less than one percent of the aggregate asset size of the banking industry.

Islamic Shari'ah based banks showed a better performance than the overall banking sector in CY16. Sharing almost one-fifth of the total market, assets of the Islamic banks grew by 13.2 percent in CY16, 310 bps lower than their CY15 level, but 50 bps higher than that of the banking industry. During this period, investments (loans and advances) of Islamic banks grew by 17.5 percent, while the growth of deposits was 12.9 percent. Asset quality of the Islamic banks showed improvement over the previous year, recording a classified investment ratio of 4.3 percent, which is 30 bps lower than that of CY15. All Islamic banks except one problem bank maintained the minimum CRAR of 10

percent. Islamic banks displayed a better performance than the overall banking sector in terms of profitability indicators as well by posting an ROA and ROE of 0.8 and 13.1 percent against corresponding figures of 0.7 and 9.7 percent for the industry. No liquidity pressure was observed among the Islamic banks as they maintained the required CRR, SLR, LCR and NSFR; an investment-to-deposit ratio (IDR) of 86.3 percent was recorded which was well below the admissible limit of 90 percent for Islamic Shari'ah based banks.

New banks continued to record positive growth in their business activities in CY16. The ten banks[2] established since 2013 accounted for only 3.6 percent of the banking industry in CY16 in terms of asset size. Like the banking industry, loans and advances constituted the major portion (62 percent) of their total assets. Their gross NPL ratio remained at a very low level (0.96 percent) compared to the overall industry (9.2 percent). Moreover, these banks maintained higher provisions than the required amount in CY16. The CRAR of the new banks stood at 16.9 percent at end-December 2016. The profitability ratios, ROA and ROE were recorded at 1.3 and 11.7 percent respectively, higher than the industry's profitability ratio during the year.

Overall risk exposure of the banking sector remained at a tolerable level in CY16. The Risk Weighted Asset (RWA) Density ratio, a measure of the overall risk of the banking sector, maintained lower trend reflecting, in general, the banking industry's willingness to redirect its position from more risk-weighted to less risk-weighted activities. RWA associated with credit risk, market risk and operational risk were 87.2, 3.8 and 9 percent of total RWA respectively, in CY16. Credit risk increased during the review year mainly due to a higher credit growth than the previous year; market risk decreased while operational risk remained same of CY15 level. However, all the stated risks were mostly concentrated within conventional PCBs and state-owned banks operating under special attention. From the corporate solvency viewpoint, credit ratings of corporate entities were mostly stable with very little downward migration of ratings according to the 2015-16 transition matrix. An increase in banks' rated exposures to corporate sector with higher number of BB rating grade 1 was observed in CY16.

Financial institutions (FIs), in CY16, showed mixed performance in terms of asset quality and profitability. FIs' asset size grew by 17.1 percent in CY16 compared to that of CY15. Loans constituted 65.6 percent share in the total assets. On the other hand, deposits made up a significant 59.1percent share of the funding sources of FIs in 2016. During the period, asset quality of FIs improved as the gross non-performing loans and leases ratio decreased to 7.3 percent from 8.9 percent in CY15. Also, FIs maintained higher loan loss provisions in CY16 over the previous year which, in turn, affected their Capital adequacy and profitability. Capital Adequacy Ratio (CAR[3]) stood at 18.4 percent in CY16, 30 basis points (bps) lower than that of CY15. Increase in loan-loss provision in the income statement of FIs pushed down the net profit, thus reducing their ROA and ROE by 90 and 540 bps with respect to the position of CY15. The liquidity scenario did not show any stress as the industry managed to maintain a higher CRR and SLR ratio than the minimum regulatory requirement.

Results of the stress tests demonstrate a considerable resilience of the banking as well as FIs sector in CY16. A number of single factor stress tests covering credit risk, market risk, and liquidity risk demonstrate that credit risk is the most dominant one in terms of its impact on CRAR of the banking sector. The sensitivity analysis of minor shocks to the banking sectors' credit portfolio shows that out of 49 banks exposed to stress tests, 23, 10 and 5 banks would become undercapitalized in case of the default of the largest borrowers (top 3), the combined credit shock, and the increase (3 percent) in NPL respectively. In different magnitudes of shocks, default of the largest borrowers would have the highest impact on the banks' soundness, in a manner that could disrupt industry resilience. The market and liquidity stress tests demonstrate considerable resilience of banks to

[2]Nine banks established in 2013 and one established in 2016.

[3]In the reporting period, FIs maintained regulatory capital in line with Basel II capital framework.

different shock scenarios. Similarly, stress tests on FIs indicate that out of 33 institutions, 26 were found to be resilient while the rest could fall short of adequate capital if forced to absorb the shocks.

The money market, dominated by scheduled banks, enjoyed adequate liquidity facilitating a stable financial system in 2016. The low level of repo operations in the form of special repo and liquidity support facility (LSF) and non-use of reverse repo is an indication of an adequate liquidity position in the money market in 2016. An overall downward trend in interbank repo market in terms of volume and interbank repo rate suggests that banking industry as a whole did not suffer from any liquidity shortfall during this period. Similarly a falling call money rate along with a decline in call borrowing amount was also observed. The call money market, which was dominated by SCBs and PCBs as top lenders and borrowers respectively, was highly concentrated, in contrast to the large and competitive interbank deposit market. FIs continued to contribute significantly in both markets in 2016. In the primary treasury auction market, BB Bills were sold heavily for sterilization purpose as well as to continue BB's liquidity management to keep reserve money growth congruent with the programmed level. For this purpose, BB introduced 07 and 14 day BB Bills in 2016. Shorter-term treasury bills remained the common instruments of public fund management in 2016 as they provided more flexibility to the Government.

The bond market registered a notable rise in its key indicators. In 2016, issuance of long-term treasury bonds increased by 21.6 percent. However, the secondary market dominated by over-the-counter (OTC) transactions recorded a 33.5 percent drop in sales volume over the previous year. Apart from devolvement on BB, no mandatory devolvement on primary dealers (PD), and non-PDs was observed throughout the year.

The Dhaka Stock Exchange (DSE) recorded an increase in index value and trade volume in CY16. The main index, DSEX, along with the market capitalization displayed a down trend during the first four months of CY16 and thereafter showed a strong positive trend to end the year on a high note. An overall uptrend was observed in the turnover to market capitalization ratio, which indicates an improved liquidity situation in the market. The manufacturing sector continued to dominate the stock market while the share of the financial sector increased largely due to the increase of banks' share prices. During the review year, the overall weighted average price earnings (P/E) ratio dropped further following the decreasing trend since September 2014.

The financial market infrastructures in Bangladesh have been evolving continuously to ensure an efficient and safe payment and settlement system. The National Payment Switch Bangladesh (NPSB), which facilitates interbank electronic payments, settled approximately BDT 68 billion in CY16 recording a 50 percent growth in payments. Mobile financial services (MFS) and electronic banking operations showed modest growth in CY16 with higher volume of card based transactions. High-value and regular value cheque clearing through the Bangladesh Automated Cheque Processing System (BACPS) increased by 17.2 and 14.2 percent respectively. With its lowest cost and minimum settlement time, the popularity of the Bangladesh Electronic Funds Transfer Network (BEFTN) is increasing, registering a 12.8 percent growth over the previous year. Besides, Central Depository Bangladesh Limited (CDBL) is assisting listed companies in the handling of script less delivery and settlement and the Real Time Gross Settlement (RTGS) system settling money or securities on a real time and gross basis provided momentum to the payment and settlement system in CY16.

The foreign exchange (FX) market remained stable throughout the period of CY16. Except some fluctuations in the overall net FX liquidity position during 2016, the nominal exchange rate of Bangladesh Taka (BDT) against the US Dollar (USD) remained mostly stable for the most part of 2016, during which BB purchased USD 3.3 billion from domestic FX market to avoid large fluctuation. The FX market settled 97.6 percent of inter-bank FX transactions in USD. The total turnover was USD 18.7 billion, in which swaps in USD consisted a significant 73 percent share followed by 21 percent

transactions in spot market. During this period, wage earners' remittance decreased by 11.1 percent compared to the previous period.

The microfinance sector showed strong and resilient growth in FY16. As microfinance institutions (MFIs) increased their outreach in terms of branches, employees, members and borrowers, total outstanding loans grew by 23.7 percent on the back of a robust growth of savings by 26.5 percent in FY16. The borrowers-to-members ratio increased by 5.4 percent due to increase in the number of economically active members availing loan facilities from their respective MFIs. A unique feature of the MFIs is their domination by female members, which stood at around 91 percent at the end of FY16. As savings has grown to constitute the largest portion of MFIs' funding sources over the years, MFIs have become more self-reliant than donor-dependent. The NPL ratio maintained a lower trend and reached at 2.7 percent in FY16, 30 bps lower than the FY15 level; however, the NPL amount increased by BDT 1.0 billion. During this period, measures of operational sustainability (i.e. ROA and ROE) and financial sustainability (i.e. dependency ratio) of MFIs showed positive trend as well.

In CY16, the following notable development initiatives have taken place in the financial system:

i) BB revised core risk guidelines on management of credit and foreign exchange risk as well as asset-liability management, and internal control and compliance.

ii) BB introduced a uniform core banking solution (CBS) for all scheduled banks.

iii) BB amended the 'Guidelines on Risk-based Capital Adequacy - Revised Regulatory Capital Framework' allowing inclusion of the entire general provision/general loan-loss reserve maintained against unclassified loans and advances in Tier-2 capital.

iv) BB instructed FIs that aggregate investment in non-listed special purpose funds shall not exceed 50 percent of an FI's paid-up capital and that investment in single fund shall not exceed 10 percent of paid up capital or 20 percent of that particular fund, whichever is lower.

v) BB issued an 'Integrated Risk Management Guidelines for Financial Institutions'.

vi) BB issued detailed guidelines on commercial paper transaction procedure for all participants in the money market.

vii) BB issued an amended guidelines on 'Stress testing for non-bank financial institutions'.

viii) To strengthen supervision of scheduled banks, BB established a new department titled 'Integrated Supervision Management Department'.

ix) BB established a revolving fund titled "Green Transformation Fund" for an amount of USD 200 million to facilitate the relevant export oriented industries to transform their conventional production systems into environment friendly and energy efficient ones.

x) BB introduced 7 and 14 day BB bills for effective implementation of its monetary policy.

xi) BB issued revised master circular on 'SME financing' to make it more inclusive and entrepreneur friendly.

xii) The operating guidelines for the 'Two Step Loan (TSL)' fund of JICA assisted 'Financial Sector Project for the Development of Small and Medium Sized Enterprises (FSPDSME)' was amended allowing 100 percent refinance/pre-finance to women led enterprises at a preferential interest rate in line with the current women entrepreneurship development strategy of BB.

xiii) BB granted permission to a new scheduled bank named Shimanto Bank Limited.

Chapter 2

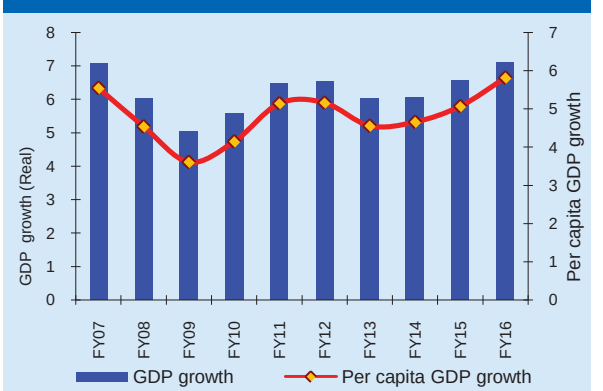
MACROECONOMIC DEVELOPMENTS

The macroeconomic situation, which influences the financial system, was mostly favourable during the Fiscal Year 2016 (FY16)[4]. Real GDP recorded a considerable growth compared to that of the preceding quarter. Inflation recorded notable decline. Balance of payments position improved notably. Marked growth was evident in case of exports. Foreign exchange reserve significantly jumped over the period. Most of the stated developments have important bearing on the domestic financial system stability in the review year.

2.1 GDP GROWTH

Bangladesh economy achieved a significant growth during the FY16 with a continuation of decade wide steady growth of the country. According to the provisional estimates of Bangladesh Bureau of Statistics (BBS), real GDP recorded a growth of 7.1 percent in FY16 against the forecasted growth of 7.05 percent, where 3.4 percentage points was contributed by the industry sector, followed by the service sector (3.3 percentage points) and the agriculture sector (0.4 percentage point). The nominal GDP of the country stood at BDT 17,328.6 billion in FY16, which is about 14.3 percent higher than that of FY15.

CHART 2.1 : BANGLADESH REAL GDP GROWTH

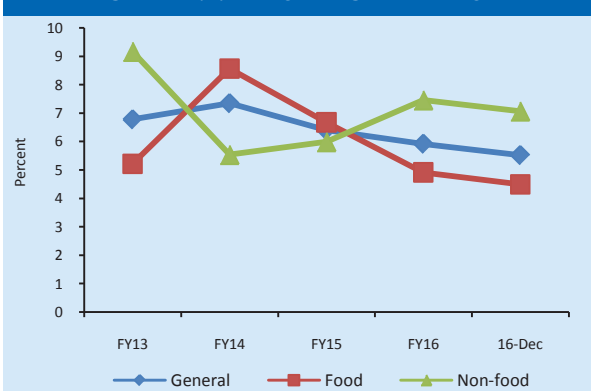


Source: Research Department, BB

The growth of per capita real GDP in FY16 was steady at 5.8 percent, while the per capita nominal GDP growth in FY16 was 12.9 percent, compared to the previous fiscal year.

2.2 INFLATION

CHART 2.2: NATIONAL CPI INFLATION



Source: Bangladesh Bureau of Statistics

In Bangladesh, the annual average CPI inflation (base: FY06=100) continuously declined in FY16. The inflation recorded at 5.9 percent in June 2016 against the target of 6.1 percent set in the Monetary Policy Statement (January-June 2016), whereas it was 6.4 percent in FY15 (Chart 2.2)[5]. Inflationary pressure started easing since June 2014 (7.4 percent) and the trend continued throughout FY16 due to falling food inflation ensuing from sufficient food supply. Lower fuel price and non-fuel commodity price in the international market with an accommodative money growth rate and stable exchange rate contributed to the decline in inflation rate.

[4]Spanning July 2015 to June 2016.

[5]Actual inflation.

The annual average food inflation dropped from 6.5 percent in July 2015 to 4.9 percent in June 2016. Though the annual average non-food inflation showed upward trend, the point-to-point non-food inflation was in a mixed movement throughout the FY16. The annual average non-food inflation increased from 6.1 percent in July 2015 to 7.5 percent in June 2016.

At end-December 2016, annual average CPI inflation for food, non-food and general category stood at 4.5 percent, 7.1 percent and 5.5 percent respectively.

In FY16, inflation in the urban area was higher than that of the rural area. In rural area, average inflation was 5.3 percent in June 2016, decreasing from 6.2 percent of 2015, while in urban area it was 7.1 percent in June 2016, increasing from 6.8 percent of June 2015.

2.3 BALANCE OF PAYMENTS

Trade deficit stood at BDT 491.0 billion in FY16, decreasing by 9.3 percent from BDT 541.0 billion in FY15. This moderate decline in the trade deficit could largely be attributed to relatively larger gain in export earnings compared to the increase in import payments.

CHART 2.3: CURRENT ACCOUNT BALANCE TO GDP RATIO

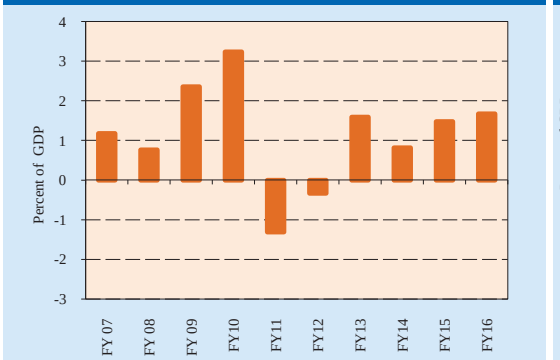
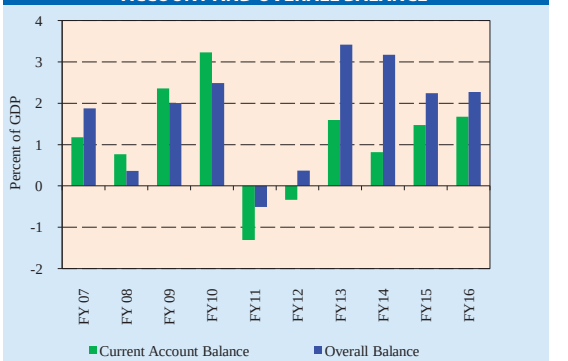


CHART 2.4: TRENDS OF TRADE, CURRENT ACCOUNT AND OVERALL BALANCE



Source: Research Department, BB

The deficit in the services account lessened by BDT 28.9 billion to BDT 218.6 billion in FY16 from BDT 247.5 billion in the previous fiscal year while the deficit in income accounts decreased by BDT 20.8 billion to BDT 202.1 billion in FY16 from BDT 222.9 billion in FY15. Current transfers decreased from BDT 1,234.7 billion in FY15 to BDT 1,201.7 billion (2.7 percent) in FY16. Current account balance increased significantly from BDT 223.3 billion in FY15 to BDT 290.0 billion (29.9 percent) in FY16 attributable to significant reduction in deficits in trade balance, service and income accounts. As a percentage of GDP, the current account balance stood at 1.7 percent in FY16 against 1.5 percent in FY15. Chart 2.3 shows the trend of current account balance to GDP ratio.

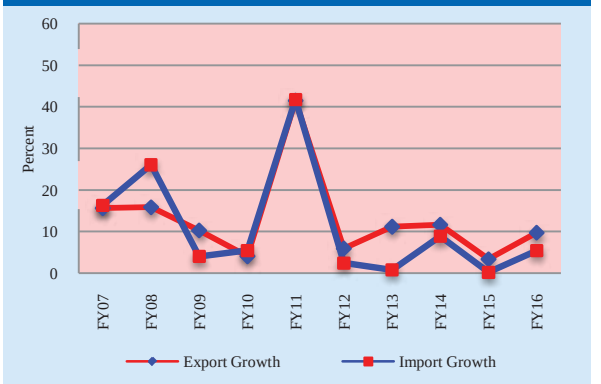
The decreased surplus in financial account is the overall outcome of a significant rise in other investments with FDI (net) and a moderate pace of portfolio investment inflow in the financial account, all of which contributed to make the surplus in overall balance. Chart 2.4 portrays the trends of trade, current account and overall balances as percentages of GDP in recent years. It can be noted that Bangladesh maintained a consistent current account surplus for the last 15 years with a few exceptions.

2.4 EXPORT AND IMPORT

Export growth in FY16 was 9.8 percent compared to 3.3 percent growth in FY15 (Chart 2.5). Aggregate exports increased by BDT 232.6 billion in FY16 to BDT 2,617.1 billion from BDT 2,384.5 billion in FY15. Apparels (woven garments and knitwear products) continued to occupy an overwhelming four fifth share of the export basket in FY16. Though traditional export items such as tea, and frozen shrimp and fish recorded negative growths of 30.8 percent and 7.1 percent

respectively, significant export growth of petroleum by-product (282.7 percent), raw jute (55.2 percent), engineering products (14.1percent), woven garments (12.8percent) and chemical products (10.5 percent) contributed to considerable growth of merchandise exports in FY16. While food grain imports declined, growth of other food items was healthy. Growth of imports of consumer, intermediate and capital goods was modest. However, import (fob) as a percentage of GDP decreased by 2.9 percentage points to 17.9 percent in FY16 from 20.9 percent in FY15.

CHART 2.5: EXPORT AND IMPORT GROWTH



Source: Research Department, BB

Merchandise imports (fob) increased by BDT 182.5 billion (6.2 percent) from BDT 2,925.6 billion in FY15 to BDT 3,108.1 billion in FY16. With the exception of negative import growth in rice (77.9 percent), milk and cream (22.4 percent), sugar (17.4 percent) and fertilizer (17.0 percent) all other imports increased significantly and resulted in an increase in overall import payments in FY16. However, import (fob), as a percentage of GDP, decreased by 2.9 percentage points from 20.9 percent in FY15 to 17.9 percent in FY16.

2.5 TERMS OF TRADE

The terms of trade was 85.88 in FY16 compared to 85.86 in FY15 (base year 2005-06). Both the export price index and import price index increased by 7.5 percent and 7.4 percent respectively during the year. Chart 2.6 depicts the scenario of the terms of trade.

CHART 2.6: TERMS OF TRADE OF BANGLADESH

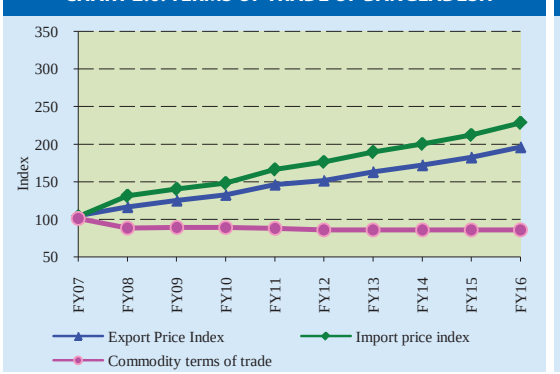
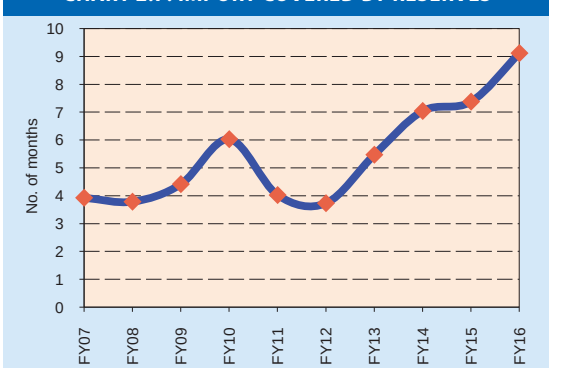


CHART 2.7: IMPORT COVERED BY RESERVES



Source: Research Department, BB

2.6 FOREIGN EXCHANGE RESERVE

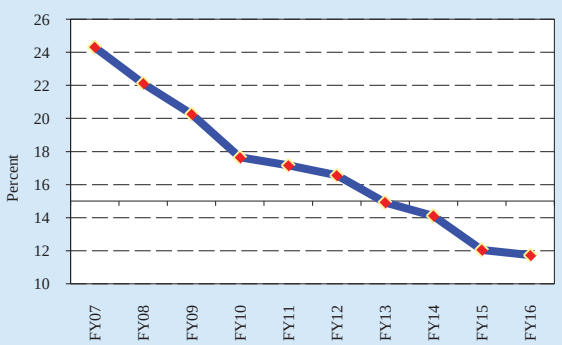
The gross foreign exchange reserves stood at USD 30.2 billion at the end of FY16. This figure was 20.8 percent higher than USD 25.0 billion at the end of FY15 [6] and was equivalent to covering about nine months of import payments (chart 2.7). It is mentionable that at end-December 2016 foreign exchange reserves stood at USD 32.1billion.

[6]The gross foreign exchange reserves held by Bangladesh Bank encompasses the holdings of gold and foreign exchange, the reserve position with the IMF and holding of Special Drawing Rights (SDR).

2.7 FOREIGN AID AND EXTERNAL DEBT REPAYMENT

Total official foreign aid disbursement increased by 13.3 percent to USD 3,450.0 million in FY16 from USD 3,044.0 million received in FY15. Food aid disbursements stood at USD 32.0 million in FY16, which was BDT 6.0 million lower than that of FY15. The disbursement of project assistance stood at USD 3,418.0 million in FY16, upward from USD 3,006 million in FY15. It is mentionable that no commodity aid was received in FY16 as in the preceding year. Total outstanding official external debt as of 30 June 2016 stood at USD 25,963 million (11.7 percent of GDP) against USD 23,901 million as on 30 June 2015 (12.1 percent of GDP). Repayment of official external debt stood at USD 1,045 million (excluding repurchases from the IMF) in FY16, which was USD 52 million or 4.7 percent less than the repayment of USD 1,097 million in FY15.

CHART 2.8: EXTERNAL DEBT/ GDP RATIO

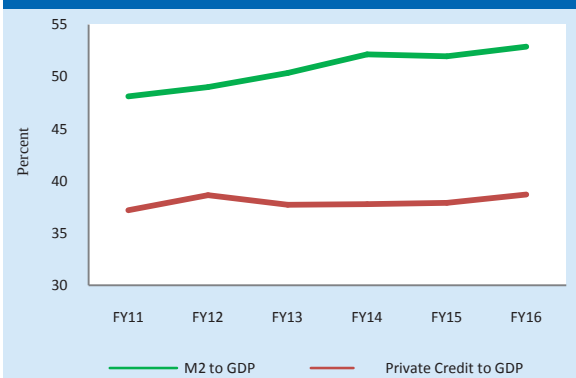


Source: Research Department, BB

Out of the total repayments in FY16, amount of principal payments was USD 842 million while amount of interest payments was USD 202 million. The corresponding figures in FY15, were USD 910 million and USD 188 million respectively. The debt-service ratio, as percentage of exports, was 3.1 percent in FY16.

2.8 MONEY AND CREDIT GROWTH

CHART 2.9: M2 AND PRIVATE CREDIT (PC) TO GDP



Source: Monthly Economic Trend, BB

Broad money (M2) growth was 16.3 percent in FY16, compared to 12.4 percent growth recorded in FY15. In FY16, the amplified growth in broad money was mainly endorsed by growth in net foreign assets (NFA), which stood at 22.8 percent in FY16 against 11.1 percent under the program. In FY16, the growth in domestic credit increased to 14.4 percent against 10.1 percent growth in FY15.

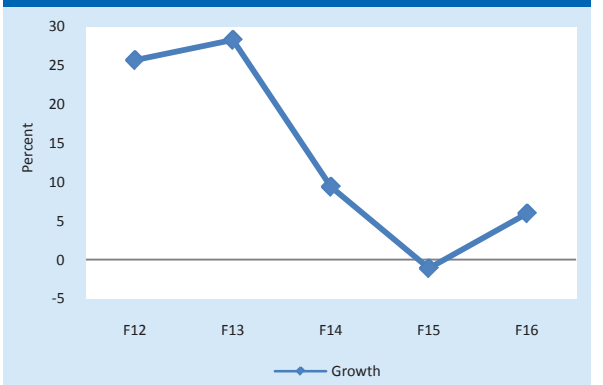
Lower domestic credit growth than the targeted level was mainly due to minor public sector credit growth which occurred at 3.3 percent against the targeted 18.7 percent in FY16 and negative growth (-2.5 percent) in FY15. The remarkable higher receipt of public credit mainly originated from higher net sale of saving certificates by the government and supernatural profit earnings by the state-owned Bangladesh Petroleum Corporation (BPC). Growth in private sector credit was recorded at 16.8 percent in FY16 against growth 13.3 percent of FY15.

The money multiplier decreased to 4.8 in FY16, compared to 5.4 in FY15. The two ratios of the money multiplier - the reserve-deposit ratio and the currency-deposit ratio - both increased over the year, leading to a decrease in the money multiplier. The former increased to 0.089 in FY16 from 0.086 in

FY15, while the latter increased to 0.154 during the period from 0.126 in FY15. Both the money multiplier and the reserve money growth justify the growth in broad money.

2.9 CREDIT TO GOVERNMENT (GROSS) BY THE BANKING SYSTEM

CHART 2.10: GROWTH OF CREDIT TO GOVERNMENT (GROSS)



Source: Monthly Economic Trend, BB

The credit to the Government (gross) by the banking system increased by BDT 101.5 billion from BDT 1,703.3 billion in FY15 to BDT 1,804.8 billion in FY16. In percentage terms, the annual growth of credit (gross) to the Government by the banking system increased by 5.9 percent in FY16.

In summary, overall macroeconomic situation including balance of payment position was favorable during the FY16, which contributed to maintaining stability in the financial system of Bangladesh.

Chapter 3

BANKING SECTOR

The banking sector in Bangladesh continued its evenness in the calendar year 2016 (CY16) like as last couple of years. In CY16, banking sector's total assets grew steadily; among these assets, loans and advances occupied the largest portion as usual followed by investments and other assets. Credit growth was higher in CY16 than that of the previous year, though growth of investment in government as well as other securities slowed down. Despite rigorous efforts of Bangladesh Bank, non-performing loan of banking sector incre ases slightly in CY16 due to deterioration of quality of the assets of state-owned commercial banks and specialized development banks. Moreover, banking system experienced lower provision maintenance than the previous year.

Though the banking sector is implementing Basel III as per roadmap released in 2014, the banking industry was successful in maintaining capital to risk weighted asset ratio (CRAR) same as previous year. Moreover, most of the banks maintained the required leverage ratio, a simple and non-risk based leverage ratio adopted under the Basel III framework, to avoid build-up of excessive on- and off-balance sheet leverage in the banking system. Low call money rate and low advance to deposit ratio (ADR) helped the banking sector edging liquidity stresses in CY16. The newly introduced Basel III liquidity indicators (LCR and NSFR) also revealed that banking industry was well set to absorb any liquidity shock. During the review year, operating profit decreased slightly, but net profit increased attributable to a decline in loan loss provision. PCBs performed well in terms of asset quality, capital adequacy and profitability while SCBs and SDBs found lagging behind the industry average and thereby required more vigilant supervision by their regulator.

3.1 FINANCIAL SYSTEM OF BANGLADESH

Based on the degree of regulation, the financial system of Bangladesh may be divided into three broad sectors. First, the formal sector, all regulated institutions like banks, Financial Institutions (FIs), insurance companies, capital market intermediaries like brokerage houses, merchant banks etc., and micro-finance institutions (MFIs). Second, the semi-formal sector, the regulated institutions but not under the jurisdiction of central bank, insurance or securities regulator or any other statutory financial regulator. This category includes specialized financial institutions like House Building Finance Corporation (HBFC), Palli Karma Sahayak Foundation (PKSF), Samabay Bank, Grameen Bank etc., Non Governmental Organizations (NGOs) and discrete government programs. Third, informal sector including shadow banking activities and activities of other financial intermediaries those are unregulated or less regulated.

Bangladesh Bank (BB), as the regulatory authority, oversees the activities of scheduled banks and financial institutions (FIs). Currently, there are 6 state-owned commercial banks[7] (SCBs), 2 specialized development banks (SDBs), 40 domestic private commercial banks (PCBs), 9 foreign commercial banks (FCBs), 4 non-scheduled banks, and 33 financial institutions (FIs) operating in Bangladesh.

Bangladesh Securities and Exchange Commission (BSEC) supervises the capital market, comprising 2 stock exchanges- Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE). The major capital market intermediaries are merchant bankers, stock brokers, dealers, security custodians and asset management companies. At present, 55[8] merchant banks, 8 credit rating companies, 391

[7] In CY2015, Bangladesh Development Bank Ltd. (BDBL) was included in the SCB category that was reported earlier in the SDB category.
[8] Source: http://www.secbd.org/List%20of%20Registered%20Merchant%20Banker..pdf

depository participants (stock dealers, brokers, security custodians, 19 asset management companies, etc.)[9] are working in capital market of Bangladesh. Insurance companies and micro-finance institutions are supervised by the Insurance Development and Regulatory Authority (IDRA) and the Micro-credit Regulatory Authority (MRA) respectively. At present 77[10] insurance companies and 759 registered[11] micro-finance institutes are working in Bangladesh. Cooperatives and credit unions are regulated by the Registrar of Cooperatives. Besides, the Ministry of Finance itself regulates the Bangladesh House Building Finance Corporation (HBFC) and Investment Corporation of Bangladesh (ICB). The Coordination Council, a forum of financial sector regulators chaired by Governor of Bangladesh Bank, has been facilitating exchange of views and promoting cooperation among the regulators to resolve overlapping issues. The Council met twice in CY16 to address the inter-regulatory issues in a coordinated manner.

3.2 ASSET STRUCTURE OF THE BANKING SECTOR

A persistent growth, i.e. 12.7 percent was observed in the asset structure of banking sector in CY16. This optimistic growth of total assets was achieved because of the rise of core earning assets.

The size of the banking sector balance sheet rose by 12.7 percent in CY16 and attained BDT 11,621.7 billion. This growth rate was almost same as recorded in the previous year of 12.8 percent, mostly accounted for modest deposit growth and growth in the interbank call money market. Besides, the phased-in reductions in share market exposure by banks and subsequent adjustments of provisions in their balance sheets also appear to be the reasons for slower growth. Nevertheless, most of the income-earning assets in the banking industry registered a positive growth in CY16.

The asset structure of the banking industry continued to be dominated by loans and advances, which secured 61 percent share in CY16 while it was 60 percent in CY15 and 59 percent in CY14. This increase was due to growth in loans and advances by 15.3 percent in CY16 compared to 14.8 percent in CY15.

CHART 3.1: YEAR-WISE BANKING SECTOR ASSET STRUCTURE

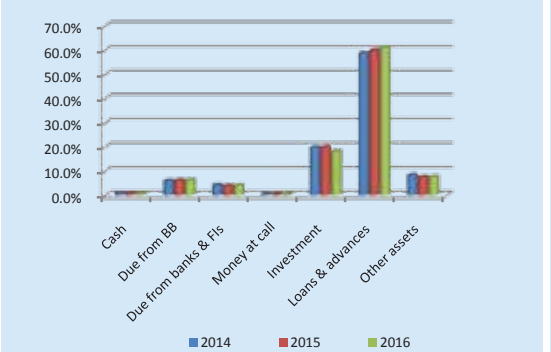
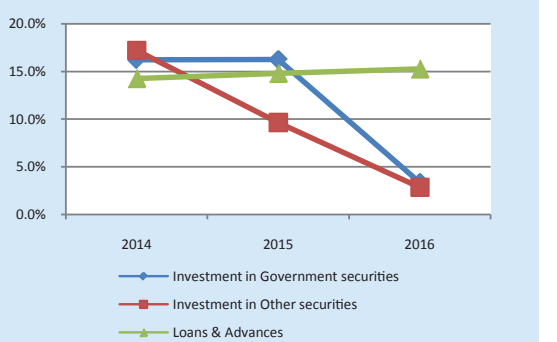


CHART 3.2: YEAR-WISE GROWTH OF LOANS AND ADVANCES AND INVESTMENT IN SECURITIES



Source: DOS, BB; compilation: FSD, BB.

Investment in government and other securities, the second highest asset share, decreased to 18.4 percent of total assets. Banks seem to be less interested to invest in government securities, as growth of these securities declined to 3.4 percent compared to 16.2 percent growth in CY15. However, the growth of investment in other securities also slowed down noticeably in CY16 (2.9 percent) compared to those of CY15 and CY14 (9.6 and 17.2 percent respectively) mainly due to phased-in reductions of banks exposures to stock market to comply with the Bank Company Act, 1991 (Amended in 2013).

[9]Source: http://www.secbd.org/CR_TRUSTY_ASSETManager_MF.htm

[10]Source: http://www.idra.org.bd/idra-org/index.htm

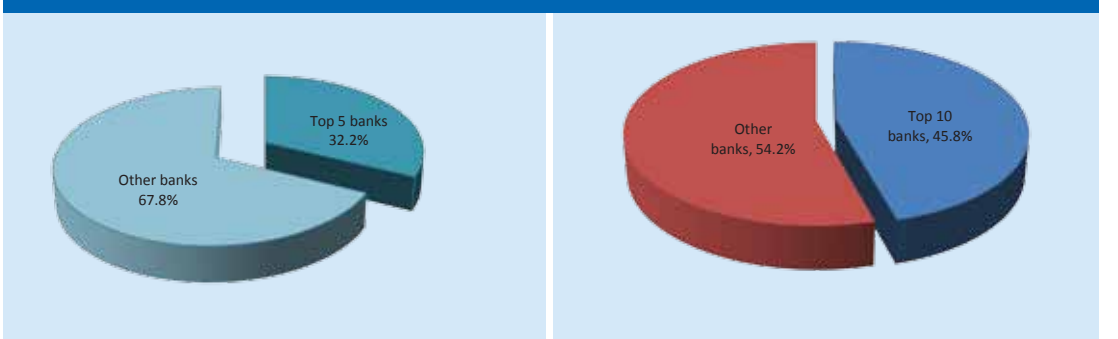
[11]Source: Information provided by MRA.

As of end-December 2016, the share of banks' assets with BB was same as preceding year while the share with other banks and FIs increased by 0.2 percentage points. During the same period, the share of money at call decreased by 0.1 percentage points. The decrease is due to the prevalent excess liquidity in the call money market. It can be assumed from the decline in the call money investment by 3.6 percent in CY16 compared to increase of 8.9 percent in CY15. Finally, the share of cash was similar to previous year while other assets increased by 0.1 percentage point in the reporting year.

Concentration of assets within a few banks reduced slightly in CY16 compared to CY15, indicating a positive sign from the view point of diversification of concentration risk.

The concentrations of assets among the top 5 and top 10 banks were 32.2 percent and 45.8 percent respectively as of end-December 2016, which were 32.5 and 46.2 percent respectively as at end-December 2015. During this period, the concentration of assets within a few banks went down marginally. In CY16, list of top 10 banks included 6 PCBs and 4 SCBs, as these two groups held 65.0 percent and 27.6 percent respectively of the total assets of the banking industry; FCBs and SDBs shared 4.8 and 2.6 percent respectively.

CHART 3.3: TOP 5 AND TOP 10 BANKS BASED ON ASSET SIZE



Source: DOS, BB; calculation: FSD, BB.

Concentration of loans and advances, the largest component in the asset structure of the banking industry, slightly increased in CY16. Since loan concentration still remains at moderate level, this may not appear to pose any significant threat to the stability of the financial system.

The calculated Herfindahl-Hirschman Index (HHI) of 1308.8 points appears to be a sign of moderate level sectoral concentration of loans and advances in the banking system. Though there are some changes observed in loans by sectoral categories, the data still reveal that the banking sector loans were concentrated within a few sectors in CY16. In particular, large industries showed 20.5 percent concentration in the total loan portfolio, followed by wholesale and retail trade with a share of 19.9 percent. The index value calculated below in Box 3.1 slightly increased in CY16 compared to that of CY15 (1300.6 points) indicating that the loans became somewhat less concentrated during this period. Moreover, it is still maintaining a considerable distance from the upper limit of high concentration, an HHI of 1800.

The Basel III framework[12] has also recommended the use of the Gini Coefficient (GC) as a measure of concentration risk. It can be used to verify the result of HHI as well. The value of GC ranges between 0 and 1 where 0 represents perfect equality or no concentration and 1 represents perfect inequality or highest level of concentration. The calculated GC of 0.69 for the 24 sectors of the banking industry of Bangladesh in CY16 provides the same result as HHI, thereby validating that there is no immediate stability threat from the view point of sectoral concentration in the banking industry.

[12]Refer to Guidelines on Risk Based Capital Adequacy (Revised Regulatory Capital Framework for banks in line with Basel III) issued through BRPD Circular No. 18, dated December 21, 2014.

BOX 3.1: SECTOR-WISE LOANS CONCENTRATION (CY16)				
Sl	**Sector**	**Amount (In Billion BDT)**	**% of total**	**HHI***
1	Sanitary Services	0.21	0.00	0.00
2	Forestry and Logging	0.24	0.00	0.00
3	Water-works	0.79	0.01	0.00
4	Procurement by Government	4.21	0.06	0.00
5	Air Transport	6.35	0.09	0.01
6	Cottage Industries/Micro Industries	10.06	0.15	0.02
7	Housing (Residential) in Rural Area for Individual Person	12.26	0.18	0.03
8	Road Transport (Excluding Personal Vehicle & Lease Finance)	21.85	0.33	0.11
9	Water Transport (Excluding Fishing Boats)	23.89	0.36	0.13
10	Fishing	28.75	0.43	0.18
11	House Renovation/Repairing/Extension	33.87	0.51	0.26
12	Lease Financing/Leasing	36.08	0.54	0.29
13	Infrastructure Development (Road, Culvert, Bridge, Tower etc.)	66.88	1.00	1.00
14	Other Construction	133.43	1.99	3.98
15	Housing (Residential) in Urban Area for Individual Person	169.87	2.54	6.45
16	Housing (Commercial) :-for Developer/Contractor	216.15	3.23	10.44
17	Agriculture	313.88	4.69	22.02
18	Service Industries	348.72	5.21	27.18
19	Export Financing(PC, ECC etc)	360.41	5.39	29.03
20	Small and Medium Industries	653.81	9.77	95.55
21	Import Financing (LIM, LTR, TR etc.)	681.91	10.20	103.94
22	Miscellaneous	768.29	11.49	131.94
23	Wholesale and Retail Trade (CC, OD etc.)	1330.67	19.89	395.79
24	Large Industries	1466.03	21.92	480.41
	Total Loans and Advances	**6688.63**	**100.00**	**1308.78**

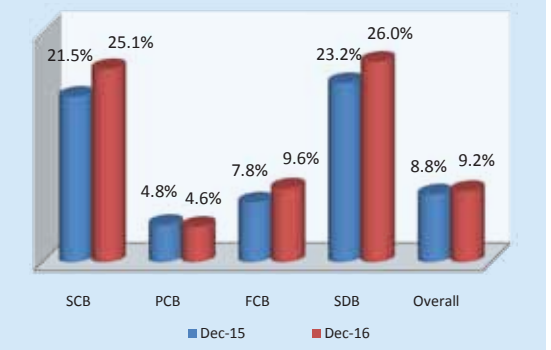
** HHI = Herfindahl–Hirschman Index*
Note: Total loans and advances exclude bills payable and OBU figures.
Source: Statistics Department, BB; Computation: FSD, BB.

3.3 NONPERFORMING LOANS, PROVISIONS, WRITTEN-OFF LOANS AND ADVANCES IN THE BANKING SECTOR

Nonperforming loans increased slightly in CY16 emanated from the deterioration in the quality of the loan portfolios mostly in the state owned commercial banks and specialized development banks.

The gross nonperforming loan (NPL) ratio[13] in the banking sector increased to 9.2 percent in CY16 from 8.8 percent in CY15. One of the main reasons for increase in NPL was inadequate due diligence in credit management.

CHART 3.4: DISTRIBUTION OF GROSS NPL RATIO

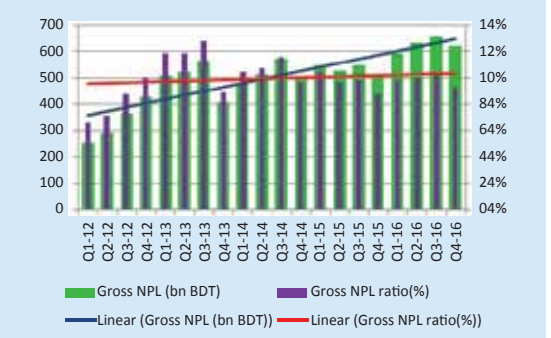


Source: BRPD, BB; compilation: FSD, BB.

The gross NPL ratios of different categories of banks are shown in Chart 3.4. The gross NPL ratios of all groups of banks except PCBs went up between end-December 2015 and end-December 2016. FCBs experienced a moderate increase of 1.8 percentage points (180 basis points) in gross NPL ratio during this period. Consequently, FCBs recorded a higher NPL ratio than that of the PCBs at end-December 2016 due to deterioration in asset quality of a particular bank in the group of FCBs.

The SDBs experienced their previous trend of higher NPL ratio during the review period. The gross NPL ratio of these banks increased to 26.0 percent in CY16 from 23.2 percent in CY15. Similarly, the gross NPL ratio of SCBs increased by 3.6 percentage points in CY16 and stood at 25.1 percent.

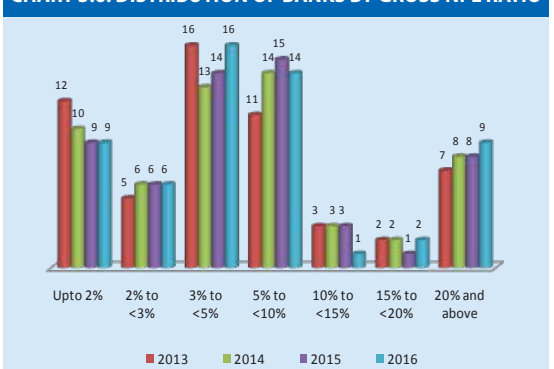
CHART 3.5: GROSS NPL AMOUNT AND GROSS NPL RATIO



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

Chart 3.5 shows an increasing trend in gross NPL in monetary value (left scale). It increased from BDT 513.7 billion in CY15 to BDT 621.7 billion in CY16 registering a growth of 21 percent. The quarterly analysis shows that the gross NPL ratio in the last quarter was lower than the previous quarters of CY16 in which Q1 (9.9 percent), Q2 (10.1 percent) and Q3 (10.3 percent) recorded a higher NPL ratio than that of the Q4 (9.2 percent)[14].

CHART 3.6: DISTRIBUTION OF BANKS BY GROSS NPL RATIO



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

Bank-wise NPL information indicates that the nonperforming loans were widely distributed among the banks. The distribution of banks based on their gross NPL ratio shows that the number of banks with gross NPL ratios of 10 percent or higher remained at 12 in both CY15 and CY16. A total of 9 banks recorded a gross NPL ratio over 20 percent which comprised of 4 SCBs, 2 SDBs, 2 PCBs and 1 FCB.

The industry NPL scenario slightly deteriorated mainly due to increase in the NPL ratio of SCBs and SDBs. However, 31 banks in the industry maintained a lower NPL ratio of below 5 percent. Seven FCBs out of nine recorded single-digit

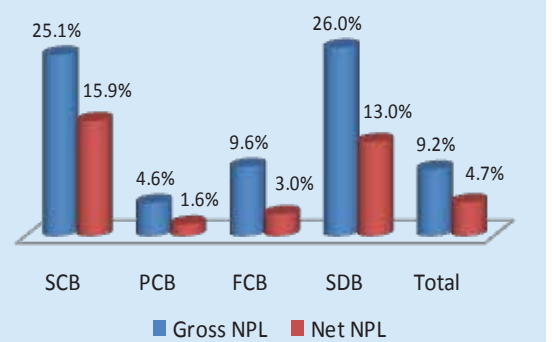
[13] Total classified loans as percentage of total loans outstanding

[14] This particular phenomenon suggests that the banking industry reschedules and/or restructures a portion of their bad assets at the Q4 of each calendar year which shoots up banks' profitability with lower provision requirements.

gross NPL ratio at end-December 2016, while all PCBs except 2 experienced less than 10 percent of gross NPL ratio. On the other hand, a very low NPL ratio (less than 1.0 percent) was observed for new banks commenced in 2013.

The net nonperforming loan (net NPL) ratio[15] increased to 4.7 percent at end-December 2016 from 4.2 percent at end-December 2015. This increase is mainly due to a higher provision shortfall of BDT 54.7 billion in CY16 compared to provision shortfall of BDT 42.8 billion in CY15.

CHART 3.7: GROSS AND NET NPL RATIO IN CY16



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

Chart 3.7 shows that the industry net NPL ratio stands at 4.7 percent calculated from gross NPL ratio of 9.2 percent after netting of specific provision. The lower the net NPL ratio of the banks, the more resilient they are thought to be to withstand stability (endogenous or exogenous) threats. Considering PCBs, which were holding the largest share of the industry assets, it is found that they had very low level of net NPL ratio indicating private sector banks' strong resilience to any stability shock.

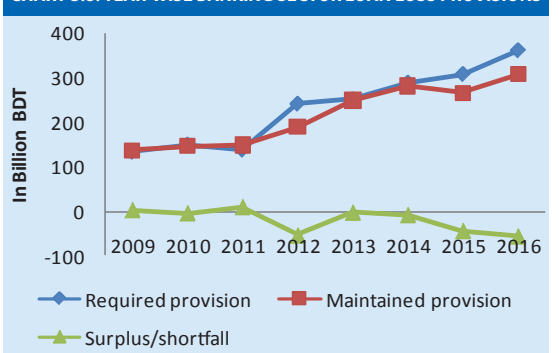
Despite having a higher gross NPL ratio of SDBs compared to SCBs, SDBs had a lower net NPL ratio due to maintaining surplus provisions.

Though the FCBs used to maintain relatively higher provisions against gross NPLs compared to other categories of banks, they did not follow their conventional trend in CY16 as they maintained only required provisions. As a result, FCBs' net NPL ratio was higher than that of the PCBs.

In CY16, all banks except only 3 SCBs and 3 PCBs maintained provisions as recommended by BB policies.

The gross NPLs increased by BDT 108.0 billion between CY15 and CY16. This increase as well as earlier NPLs required banks to maintain cumulative provisions of BDT 362.1 billion as of end-December 2016, against which banks actually maintained provisions amounting to BDT 307.4 billion. Though the maintained provision in CY16 is around BDT 41.2 billion higher than that of CY15, banks' provision maintenance ratio dropped from 86.1 percent to 84.9 percent within the review period. During the same period, the ratio of the maintained provisions to gross NPLs went down from 51.8 percent to 49.4 percent. This deterioration in ratio is primarily attributable to the provisions shortfall in SCBs which experienced a provision shortfall of BDT 45.7 billion in CY15, while they experienced a further provision shortfall reaching to BDT 60.8 billion in CY16. On the other hand, during this period, 3 PCBs (one of which is currently under restructuring arrangements of BB) had a provision shortfall amounting to BDT 4.6 billion only.

CHART 3.8: YEAR-WISE BANKING SECTOR LOAN LOSS PROVISIONS



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

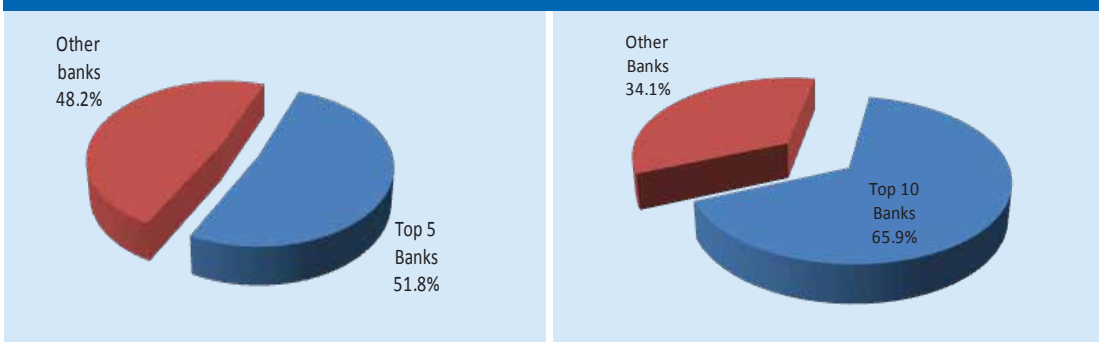
However, the rest of the banks in the industry were able to maintain required provisions and

[15]Net NPL ratio = (Gross NPLs - Loan-loss Provisions Maintained)/Total Loans Outstanding.

some of them enjoyed provision surplus. The SDBs showed signs of improvement with no provision shortfall, rather registering a provision surplus of BDT 0.5 billion in CY16, though it was lower than their previous surplus of BDT1.9 billion in CY15.

The concentration of gross NPL among banks increased slightly in CY16. Most of the SCBs and SDBs were listed in the top 5 and top 10 banks based on gross NPL amount.

CHART 3.9: TOP 5 AND TOP 10 BANKS BASED ON GROSS NPL SIZE



Source: BRPD, BB; computation: FSD, BB

The gross NPLs concentration ratios (based on the size of gross NPLs) of the top 5 and top 10 banks were 51.8 and 65.9 percent respectively as of end-December 2016 against the corresponding figures of 49.9 and 64.0 percent respectively in CY15. It is mentionable that the gross NPLs in SCBs were higher than those of other groups. In CY16, the top 10 banks in terms of NPL size consist of 5 SCBs, 3 PCBs, 1 FCB and 1 SDB. By considering highest order of gross NPL ratio, among the top 10 banks, 4 are SCBs, 2 are PCBs, 2 are SDBs and 2 are FCBs. The presence of SCBs and SDBs among the top 10 list (in terms of both size and ratio) may enervate the stability of financial system as these banks play critical roles in financial intermediation.

The sector-wise NPL distribution did not show much concentration of NPL in any particular sector in CY16.

It is evident from Table 3.1 that nonperforming loans (NPLs) were distributed throughout different sectors of the economy with a modest level of concentration in CY16. Commercial loans and RMG were the two sectors with the highest share of NPLs (23.4 and 12.6 percent respectively) against their 23.6 and 11.3 percent of total outstanding loans in the banking industry. The overall scenario, however, shows no significant concentration of banking sector's loan portfolio to any particular sector of the economy. It implies that banking sector's loan portfolio may withstand any sector-specific economic shock.

TABLE 3.1: SECTOR-WISE NON-PERFORMING LOANS DISTRIBUTION (CY16)

(Amount in billion BDT)

Sl No.	Name of Sector	Total loans outstanding	Gross GNPL	Gross GNPL ratio	% share of loans extended to a particular sector	% share of NPLs of a particular sector
1	Agriculture	307.8	55.2	17.9%	4.6%	8.9%
2	Industrial (Manufacturing):					
2.1	RMG	758.7	78.5	10.4%	11.3%	12.6%
2.2	Textile	543.7	52.5	9.7%	8.1%	8.4%
2.3	Ship building and Ship breaking Industry	117.2	18.1	15.4%	1.7%	2.9%
2.4	Agro-Based Industry	343.7	32.6	9.5%	5.1%	5.2%
2.5	Other Industries (Large Scale)	1002.2	61.1	6.1%	14.9%	9.8%
2.6	Other Industries (Small, Medium and Cottage)	331.1	43.8	13.2%	4.9%	7.0%
3	Industrial (Services):					
3.1	Construction Loans	482.8	39.7	8.2%	7.2%	6.4%
3.2	Transport and Communication	118.9	17.4	14.6%	1.8%	2.8%
3.3	Other Service Industries	227.8	11.2	4.9%	3.4%	1.8%
4	Consumer Credit:					
4.1	Credit Card	34.4	2.9	8.4%	0.5%	0.5%
4.2	Autos (Car) Loan	20.3	1.1	5.5%	0.3%	0.2%
4.3	Housing Finance	109.0	9.3	8.5%	1.6%	1.5%
4.4	Personal	131.3	7.0	5.3%	1.9%	1.1%
5	Trade and Commerce (Commercial Loans)	1589.5	145.7	9.2%	23.6%	23.4%
6	Credit to NBFI	55.3	0.0	0.0%	0.8%	0.0%
7	Loans to Capital Market:					
7.1	Merchant Banks	21.3	0.2	1.2%	0.3%	0.0%
7.2	Other than Merchant Banks	18.8	0.4	2.0%	0.3%	0.1%
8	Other Loans	523.4	45.0	8.6%	7.8%	7.2%
	Total	**6737.2**	**621.7**	**9.2%**	**100.0%**	**100.0%**

Source: Scheduled Banks and DOS, BB; compilation: FSD, BB

Bad and Loss loans to gross NPL ratio remained same in CY16 in comparison with the previous year.

The gross NPL ratio increased to 9.2 percent in CY16 from 8.8 percent in CY15. More than four-fifths of gross NPLs (i.e. 84.4 percent), amounting to BDT 524.45 billion, were bad/loss (BL), which is BDT 89.6 billion higher than that of CY15. On the other hand, Sub-standard (SS) and Doubtful (DF) categories constituted 10.2 percent and 5.4 percent respectively as shown in Chart 3.10.

CHART 3.10: GROSS NPLs COMPOSITION IN CY16

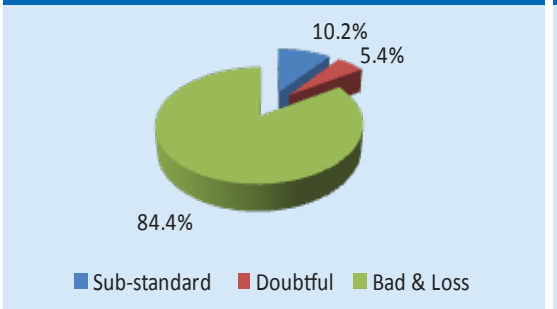
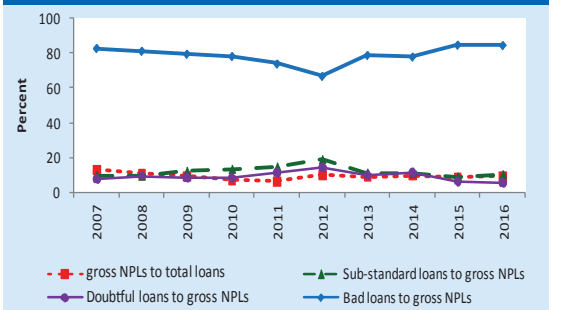


CHART 3.11: YEAR-WISE RATIOS OF THE THREE CATEGORIES OF NPLs



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

The increase in the BL loans to gross NPL ratio implies subsequent decreases in the SS loans to gross NPL ratio and the DF loans to gross NPL ratio, which are evident from Chart 3.11. Although the banks are required to maintain 100 percent provision against bad loans' provision base, which mitigates the further risk of deteriorating banks' profitability and capital; still an increase in the aggregate amount of bad loans is a matter of concern from the financial stability perspective.

The total loans written-off in CY16 decreased as compared to the written-off amount in CY15.

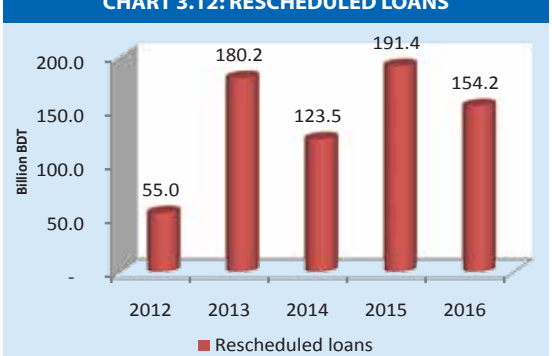
A total of BDT 34.8 billion adversely classified loans were written-off from the bank balance sheet in CY16, compared to BDT 41.6 billion in CY15. Despite the loan being written off, the legal procedures against the defaulted borrowers will continue and initiatives will be extended by the banks for successful recovery of those loans.

To improve the NPL scenario of the banking industry, BB is emphasizing on monitoring the NPLs of large groups and non-financial corporations.

The dominance of the banking sector highlights the crucial importance of the sector in resource mobilization and economic growth. The role of the banking sector in accelerating growth is contingent upon the soundness and depth of the sector. The adverse effect on banks' balance sheets arising from high amounts of nonperforming loans is a major concern for the well functioning of economy. BB issued new Guidelines on Internal Control & Compliance and Credit Risk Management[16] urging banks to take precautionary measures when extending loans to high-risk sectors and to prioritize loans to productive sectors. BB also continued stringent measures from CY15 in monitoring loan classification & provisioning along with systematic initiatives[17] to monitor NPLs of large groups and non-financial corporations. All of these efforts could support the banking sector towards improving the prevailing NPL scenario.

3.4 RESCHEDULED ADVANCES

CHART 3.12: RESCHEDULED LOANS



Source: BRPD, BB; computation: FSD, BB

The rescheduled loans have created extra stress to the banking system in recent time as these constitute a significant part of the banks' total loans portfolio. At the end of December 2016, the loans that had been rescheduled for at least once, reached to 10.5 percent of banks' total outstanding loans of which 75.8 percent were unclassified. Scheduled Banks occasionally reschedule classified loans according to the policy of the Bangladesh Bank.

[16] BRPD Circular No. 03 and 04, dated March 08, 2016.

[17] FSD Circular No. 01: Setting up of Central Database for Large Credit (CDLC), date: 24 December 2015.

Chart 3.12 shows the amount of rescheduled loans for the last five years. In 2013 it increased but in 2014 it decreased. Again in 2015 it peaked. However, in CY16, the amount of rescheduled loans has decreased by 19.5 percent from that of CY15. Along with the over-leverage, poor due diligence, influenced lending, fraud and negligence in compliance of risk management practices could be the reasons for the rise in rescheduled loans.

Chart 3.13 shows the sector-wise composition of rescheduled loans at end-December 2016. Loans rescheduled in RMG & Textile sector constituted the major segment (22.7 percent) of the industry's rescheduled loans as at end-December 2016. Industrial Loan other than working capital (regardless of the size of the industries) was 20.2 percent while with working capital, it was 30.0 percent. Loans categorized as other sectors (including ship building and breaking, transportation and communication and consumer credit, etc.) shared 14.6 percent and the foreign trade (Export credit, Import credit and Loans against Trust Receipts) shared 11.7 percent of total rescheduled loans.

CHART 3.13: SECTOR-WISE RESCHEDULED LOAN COMPOSITION

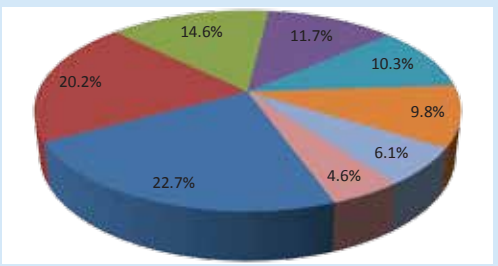
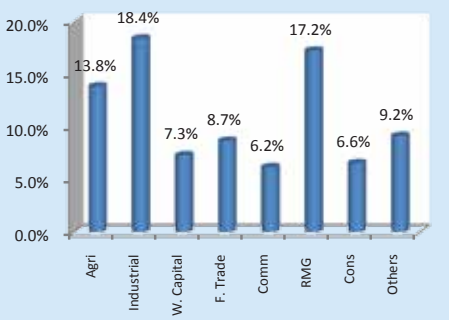


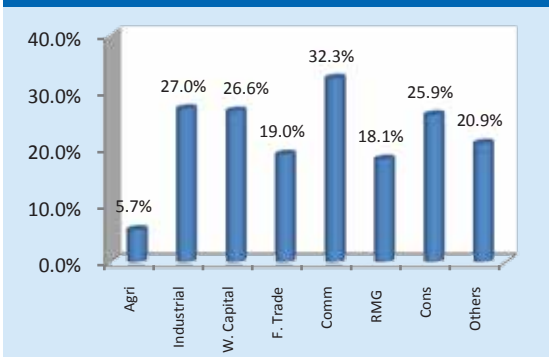
CHART 3.14: SECTOR-WISE RESCHEDULED LOAN RATIO



Source: Scheduled Banks; computation: FSD, BB

The rescheduled loan ratio of industrial sector ranked the top of all sectors (Chart 3.14) with 18.4 percent. It was followed by RMG with 17.2 percent. Agriculture sector ranked third position with 13.8 percent as Bangladesh Bank allowed banks to reschedule their short term agricultural credit with relaxed down payment condition. The percent of rescheduled loans in the remaining sectors were within 10.0 percent.

CHART 3.15: SECTOR-WISE NON-PERFORMING RESCHEDULED LOAN RATIO



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

Chart 3.15 shows the Sector-wise Non-performing rescheduled loans ratio. Though only 6.2 percent of commercial loans have been rescheduled, 32.3 percent of this remain as non-performing. For Industrial loans, Working capital and Construction loans, such ratios were 27.0, 26.6 and 25.9 percent respectively. Non-performing rescheduled loans of Agricultural sector was relatively low compared to other sector.

Industry-wise rescheduled loans' composition demonstrate (Chart 3.16) that the major portion (42.0 percent) of the rescheduled loans, amounting to BDT 298.0 billion, was under Large industry category as at end-December 2016. Medium and other industries secured second and third positions with share of 25.0 percent and 23.3 percent respectively.

CHART 3.16: INDUSTRY-WISE RESCHEDULED LOAN COMPOSITION

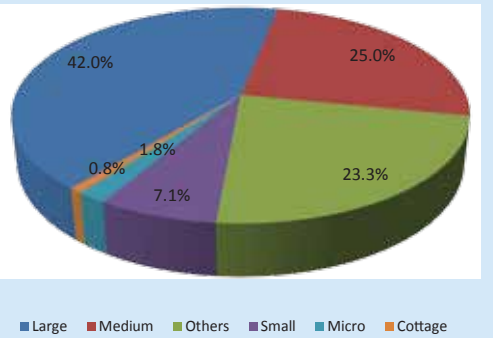
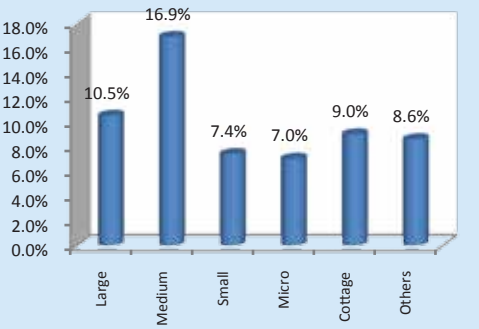


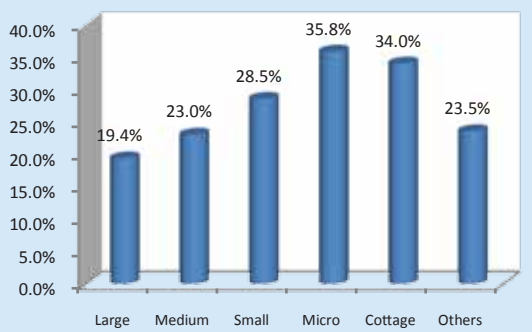
CHART 3.17: INDUSTRY-WISE RESCHEDULED LOAN RATIO



Source: Scheduled Banks; computation: FSD, BB

Chart 3.17 demonstrates the industry wise rescheduled loan ratio at end-December 2016. The highest rescheduled loan ratio was observed in medium industries with 16.9 percent. It was followed by Large, Cottage and other industries with 10.5, 9.0 and 8.6 percent respectively. Rescheduled loan ratios of Small (7.4%) and Micro (7.0%) industries were closed to each other.

CHART 3.18: INDUSTRY-WISE NON-PERFORMING RESCHEDULED LOAN RATIO



Source: Scheduled Banks; computation: FSD, BB

Chart 3.18 shows the Industry-wise Non-performing rescheduled loan ratios. Though only 7.0 percent loans in Micro Industries has been rescheduled, 35.8 percent of this remains as non-performing. Non-performing rescheduled loans in Cottage industry was also high (34.0 percent). For Large, Medium and Small Industries, such ratios were 19.4, 23.0 and 28.5 percent respectively.

At end-December 2016, PCBs occupied the highest amount of rescheduled loans, which accounted for 51.0 percent of total rescheduled loans of the banking industry. During the same period, SCBs, SDBs and FCBs shared 42.0, 6.1 and 1.0 percent of industry's total rescheduled loans respectively (Chart 3.19).

CHART 3.19: BANK CLUSTER-WISE RESCHEDULED LOAN COMPOSITION

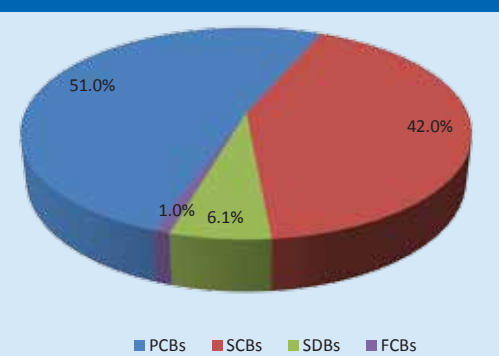
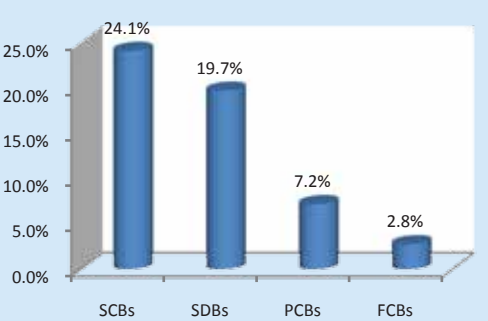


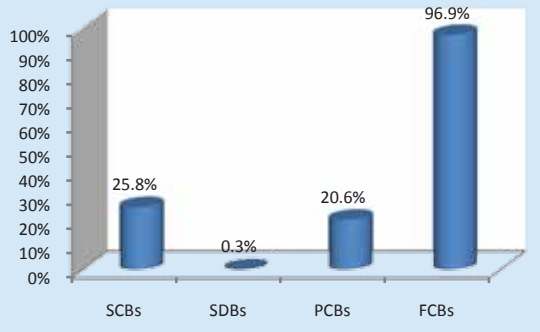
CHART 3.20: BANK CLUSTER-WISE RESCHEDULED LOAN RATIO



Source: Scheduled Banks; computation: FSD, BB

Chart 3.20 reveals that the SCBs, at end-December 2016, ranked top with rescheduled loan ratio (rescheduled loans as a percentage of total loans outstanding) of 24.1 percent followed by SDBs of 19.7 percent. The ratios were 7.2 percent and 2.8 percent respectively for PCBs and FCBs.

CHART 3.21: BANK CLUSTER-WISE NON-PERFORMING RESCHEDULED LOAN RATIO

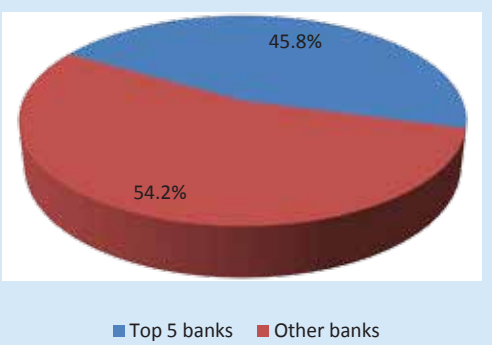


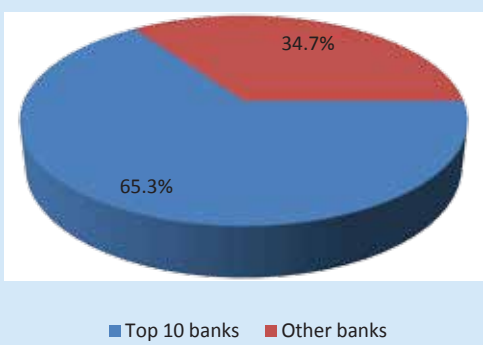
Source: Scheduled Banks; computation: FSD, BB

Chart 3.21 shows the cluster-wise non-performing rescheduled loan ratio. Though only 2.8 percent loan of FCBs has been rescheduled, 96.9 percent of these are non-performing. For SCBs and PCBs, such ratios were 25.8 and 20.6 percent respectively. Only 0.3 percent rescheduled loans of SDBs was found to be non-performing.

Chart 3.22 highlights the concentration of outstanding rescheduled loans among banks. The top 5 banks hold 45.8 percent while top 10 banks hold more than two third (65.3 percent) of total outstanding rescheduled loans at end-December 2016. The top 5 banks comprised of 3 SCBs and 2 PCBs whereas the top 10 banks comprised of 5 SCBs, 1 SDB and 4 PCBs.

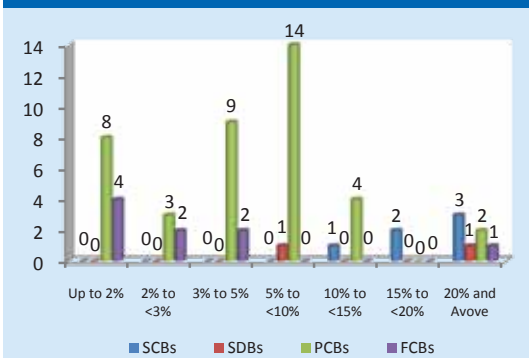
CHART 3.22: TOP 5 AND TOP 10 BANKS BASED ON RESCHEDULED LOAN SIZE





Source: Scheduled Banks; computation: FSD, BB

CHART 3.23: DISTRIBUTION OF BANKS BY RESCHEDULED LOAN RATIO



Source: Scheduled Banks; computation: FSD, BB

Chart 3.23 shows the distribution of banks by rescheduled loan ratio. Highest numbers of banks were found between 5 percent to 10 percent. Up to 2 percent, there were 12 banks of which 8 were PCBs and 4 were FCBs. It is notable that the 43 banks maintained their rescheduled loans within 10 percent and 7 banks maintained above 20 percent.

The banking sector is said to be the main source of fund in fueling economic growth through short term investment. However, the piles-up of rescheduled loans seems to be as a matter of concern, though the banks are expected to be cooperative in assisting viable customers to sustain during their difficult times by keeping their loans performing. Despite expected rescheduling, elevated amount of rescheduled loans in industrial sector, particularly in RMG and textile, in conjunction with the lack of required follow-up may create downside risks for banking system as a whole.

BOX 3.2: STRESSED ADVANCES[18] IN BANKING SECTOR

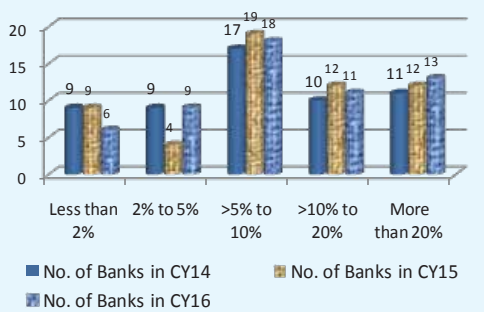
The stressed advances ratio (stressed advances as percentage of total loans outstanding) at end-December 2016 increased by 1.1 percentage points from end-December 2015.

The stressed advances ratio rose to 17.2 percent at end-December 2016 from 16.1 percent at end-December 2015. Though the gross NPL ratio at end-December 2016 was 43 basis points higher than that of previous year, rescheduled standard and restructured[19] loans to total outstanding increased by 67 basis points over the previous period which indicates a need for stronger risk management technique for improvement in the overall asset quality of the banking system.

B 3.2.1 Bank wise distribution of stressed advances ratio

Compared with the end-December 2015, equal number of banks experienced over 10 percent of stressed advances ratios at end-December 2016. However, the volume of stressed advances rose during the review period indicating a slight rise in credit risk.

Chart B3.2.1: Bank-wise stressed advance ratio

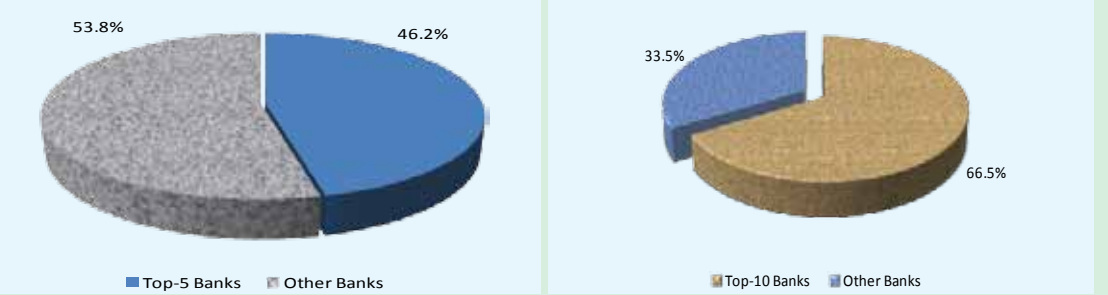


Source: Scheduled Banks; computation: FSD, BB

At end-December 2016, out of 57 banks, 15 banks were able to maintain their stressed advances ratios below 5 percent compared to 13 banks at end-December 2015. A total of 18 banks (19 banks in 2015) had their stressed advances ratios between 5 to 10 percent, while 24 banks had stressed advances ratios of more than 10 percent both at end-December 2015 and 2016.

An analysis of stressed advances concentration ratios shows that the top 5 and top 10 banks out of 57 banks held 46.2 percent and 66.5 percent of total stressed assets in the banking sector respectively at end-December 2016. Among the top 10 banks, 5 are SCBs, 1 is SDB, and 4 are PCBs.

Chart B3.2.2: Top 5 and top 10 banks based on size of stressed advances



Source: Scheduled Banks; computation: FSD, BB

B 3.2.2 Industry-wise stressed advances ratio

Stressed advances ratios at end-December 2016 are found to be higher for SDBs and SCBs than those of PCBs and FCBs revealing some weaknesses in credit risk management in SCBs and SDBs. Though large industries accounted for the highest volume of stressed assets, higher stressed advances ratios are observed for micro and cottage industries followed by medium industries.

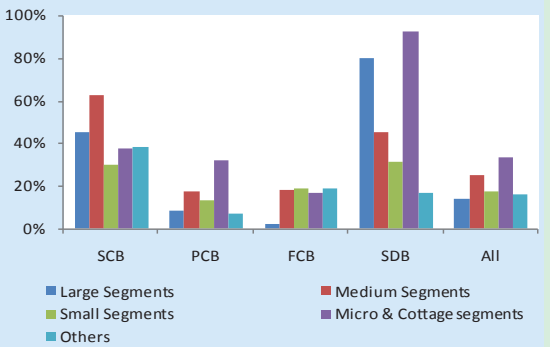
(Continued)

[18]Gross nonperforming advances plus restructured and rescheduled standard advances. Here, the terms 'loans' and 'advances' are used interchangeably

[19]Loans restructured as per BRPD circular no. 04, dated 29.01.2015.

The chart B3.2.3 shows the distribution of stressed advances ratios across five major borrower segments[20] comprising manufacturing and service sectors.

Chart B3.2.3: Industry-wise stressed advances ratio (end 2016)



Source: Scheduled Banks; computation: FSD, BB

As at end-December 2016, SDBs and SCBs were exposed to the highest stressed advances ratios, compared to other clusters of the banks in the industry. Higher stressed advances ratios observed for the micro & cottage and medium industries indicate the need for due diligence in managing credit risk in those sectors.

Table B3.2.1 shows that large industries at end-December 2016, having 42.2 percent of total advances of the banking industry, registered 33.8 percent of industry stressed advances. The stressed advances declined for large industries by 1.4 percentage points from the end-December 2015. On the other hand, medium industries possessing 15.6 percent share of total advances accounted for 22.9 percent of stressed advances which was 1.3 percentage points higher than that of the end-December-2015.

Table B3.2.1: Industry-wise composition of stressed advances

(Percent)

Particulars	Share in stressed advances		Share in total advances	
	End-Dec 2015	End-Dec 2016	End-Dec 2015	End-Dec 2016
Large Industry	35.2	33.8	42.4	42.2
Medium Industry	21.6	22.9	13.8	15.6
Small Industry	10.8	10.0	10.6	10.1
Micro and Cottage Industry	0.8	6.9	1.7	3.6
Others	31.6	26.4	31.5	28.5

Source: Scheduled Banks; computation: FSD, BB

Stressed assets can put adverse effects on bank balance sheets including profitability. Consequently, concerned scheduled banks should gear up their recovery drives to ensure collection of installments of rescheduled and restructured loans in due time. Banks should also give emphasis on sound risk management techniques and be aware of accumulation of stressed advances in their asset book as an early warning signal for further deterioration of their financial health.

3.5 LIABILITY STRUCTURE OF THE BANKING SECTOR

Deposits grew by 12.8 percent in CY16 compared to 12.5 percent in CY15. A reduced growth in term deposits was observed while deposit concentration within a few banks slightly decreased.

Deposits were the largest source of external funds in the banking sector. The share of total deposits was 84.2 percent of the total liabilities as of end-December 2016.

[20]Large segments, Medium Segments, Small Segments and Micro & Cottage segments: Definition based on SMESPD Circular No-01, dated 07 January, 2016. Other segments: Loans to individuals and other than MSME and Large segment.
(https://www.bb.org.bd/mediaroom/circulars/smespd/jan072016smespd01.pdf)

CHART 3.24: YEAR-WISE BANKING SECTOR LIABILITY STRUCTURE

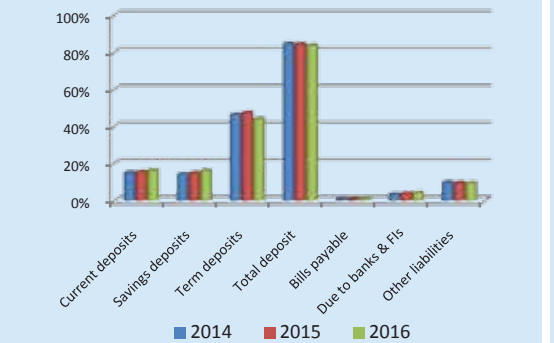
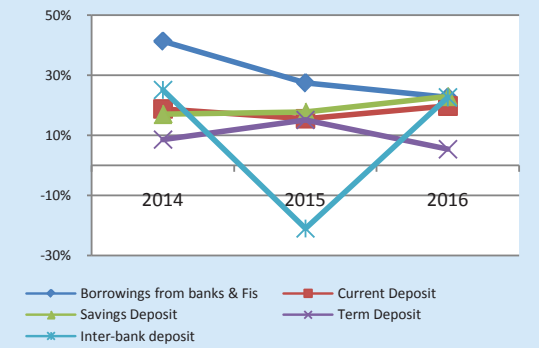


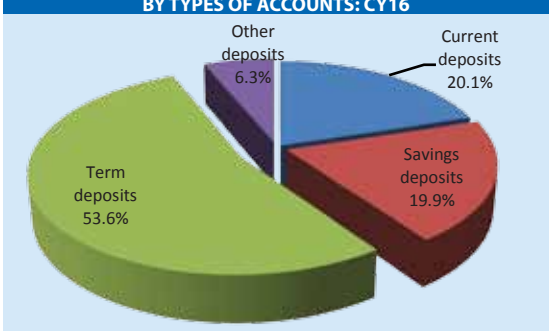
CHART 3.25: YEAR-WISE GROWTH OF DEPOSITS AND BORROWINGS FROM BANKS AND FIS



Source: DOS, BB; compilation: FSD, BB.

As of end-December 2016, total deposits and borrowings from other banks and FIs increased by 12.8 percent (12.5 percent in CY15) and 22.6 percent (27.4 percent in CY15) respectively. Bills payable recorded a sharp increase of 71.7 percent in CY16 compared to the decrease of 0.3 percent in CY15. The slowdown in growth rates of aggregate deposits and borrowings from other banks and FIs indicates that the banking industry was facing less liquidity pressure from new lending. The higher interest rates of government savings certificates also would have contributed in the slowdown of deposit growth. Though term deposits showed a moderate growth of 5.3 percent in CY16 (15.1 percent in CY15), it could not compensate for the slowdown in current deposit growth along with the sharp increase of 22.6 percent recorded in interbank deposits.

CHART 3.26: BANKING SECTOR DEPOSIT* STRUCTURE BY TYPES OF ACCOUNTS: CY16

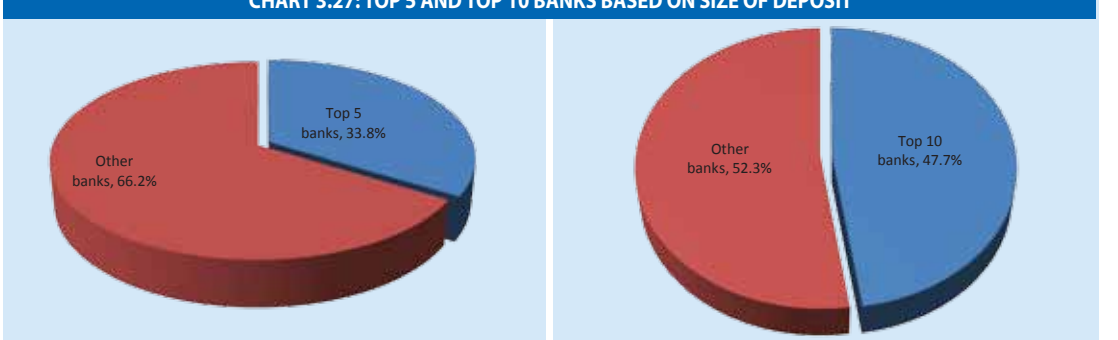


**Inter-bank deposits are excluded.*
Source: DOS, BB; compilation: FSD, BB.

As of end-December 2016, the share of term deposits was 53.6 percent of total deposits, whereas the shares of savings deposits, current deposits, and other deposits were 19.9, 20.1 and 6.3 percent respectively. The relative proportions of term deposit decreased whereas savings and current deposits increased moderately in CY16. The highest interest rate offered by national savings certificate might be the reason for public attraction rather than investing in term deposit.

The concentration of deposits among the top 5 and top 10 banks remained almost as same as in CY16. These banks accounted for 33.8 and 47.7 percent of total deposits respectively during this period, compared to 33.8 and 47.8 percent respectively in CY15. The top 5 banks included 4 SCBs and one PCB while the top 10 banks accommodated 5 more PCBs in addition to the top 5 banks.

CHART 3.27: TOP 5 AND TOP 10 BANKS BASED ON SIZE OF DEPOSIT



Source: DOS, BB; compilation: FSD, BB.

3.6 BANKING SECTOR DEPOSIT SAFETY NET

In Bangladesh, 88.4 percent of depositors of the banking system up to BDT 100,000 per depositor are fully protected under deposit insurance coverage, though, in amount, it stands at 26.9 percent of total deposits.

Deposit Insurance System (DIS) is one of the key elements of a financial safety net, and relies on supervision, regulation and resolution regime. The role and coverage of DIS is still a debatable agenda and the Global Financial Crisis (GFC) gave impetus to the policy makers around the globe for revisiting DIS as a safety net during crisis or building confidence on the banking system. Generally, it plays an important role in maintaining the financial stability by protecting the small depositors by guaranteeing their deposits with banks in line with the public policy of ensuring social justice. DIS reduces the probability of bank run, improves risk management capacity of banks, and provides arrangement for winding up of failing banks and establishing an exit path of insured depositors.

Bangladesh introduced DIS in August 1984 as a scheme under "The Bank Deposit Insurance Ordinance, 1984". In July 2000, the Ordinance was repealed by an Act called "Bank Amanat Bima Ain 2000 (The Bank Deposit Insurance Act, 2000)". The funding mechanism of the existing DIS is unidirectional; i.e. scheduled banks finance the scheme through regular contributions of premiums at a prescribed rate applicable to that particular category of bank and the amount of assessable deposits. A Deposit Insurance Trust Fund (DITF) has been created under the Bank Deposit Insurance Act, 2000 with the premiums received from banks. Bangladesh Bank invests the DITF mostly in government bonds and the remainder is kept as cash with Bangladesh Bank. Besides, Bangladesh Bank, an official insurer empowered by the act, became a member of International Association of Deposit Insurers (IADI) in 2006 and participating in international conferences and seminars to enhance the effectiveness of DIS in Bangladesh.

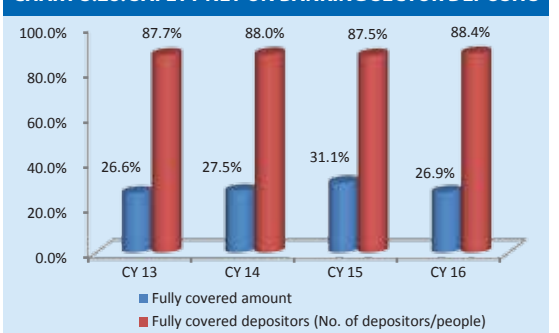
In Bangladesh, at the end of CY16, the capacity of DITF reached at BDT 53.74 billion. However, this fund, as of end-December 2016, in consideration of the current coverage of maximum of BDT 100,000 per depositor per bank, could cover 0.7 percent of the total insurable amount of deposits of the entire banking system. Indeed, the capacity seems infinitesimal compared to the size of the banking sector of Bangladesh.

TABLE 3.2: DEPOSIT INSURANCE TRUST FUND AND ITS COMPOSITION (AMOUNT IN BILLION BDT)

Particulars	2012	2013	2014	2015	2016
Insurable Deposits	4,229.77	5,322.93	6,034.86	6816.38	7918.17
Insurance Premium (during the year)	2.31	3.34	3.54	4.01	4.6
i. Investment	23.99	29.76	36.35	44.06	53.73[21]
ii. Cash	0.15	0.07	0.005	0.57	0.0086
Deposit Insurance Trust Fund Balance	24.14	29.83	36.36	44.63	53.74

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

CHART 3.28: SAFETY NET ON BANKING SECTOR DEPOSITS



Source: DID, BB; computation: FSD, BB

The percentage of covered deposits[22] to total insurable deposits, in amount, decreased to 26.9 percent in CY16, which was 31.1 percent in CY15. It could be the increase of large deposits or transfer of some of small deposits to some alternative investment destinations like capital market or government savings schemes.

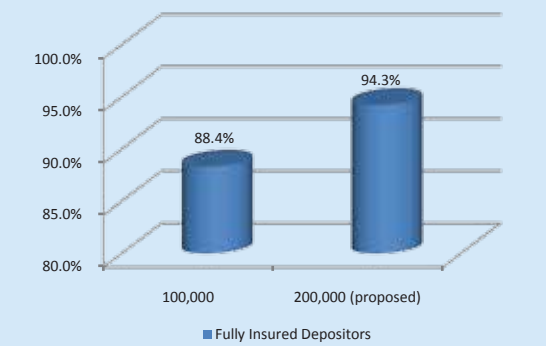
However, reduction in fully covered amount is not very significant to affect the prevailing deposit safety net in the country since the percentage of fully covered depositors increased a bit. Though the current maximum coverage

[21] Accumulation of the insurance premium after incorporation of deposit insurance in 1984.

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

limit is BDT 100,000 per depositor per bank, 88.4 percent of total number of depositors of the entire banking system is protected within this limit. The proposal to increase the coverage up to BDT 200,000 per depositor to enhance protection of small depositors is yet to be approved by the government.

CHART 3.29: PROTECTION OF DEPOSITORS ON ENHANCEMENT OF INSURED DEPOSIT COVERAGE LEVEL



Source: DID, BB; computation: FSD, BB

Upon approval of the extended coverage limit to BDT 200,000 per depositor per bank, by the upcoming amendment of the Bank Deposit Insurance Act, 2000, the percentage of fully covered depositors is expected to be increased to 94.3 percent of total number of depositors of the banking system. The proposed amendment also includes the depositors of non-bank financial institutions and mobile financial service providers. This implies that small deposits under NBFIs and mobile financial services will also be insured.

BOX 3.3: THE CAPACITY OF EXISTING DITF AND ITS FORECAST

The DITF is being accumulated by collecting insurance premium from the banking sector since its incorporation in 1984. Along this effort, investment of the same increases the size and capacity of this fund over time. It is evident that, upon liquidation, DITF is capable enough to pay off the insured depositors of two private commercial problem banks under the current deposit insurance (coverage) level, as well as under the proposed enhanced insurance level of deposits, i.e. up to BDT 200,000.

Chart B3.3.1: Usage of fund from DITF to liquidate two private commercial problem banks at current insured level.

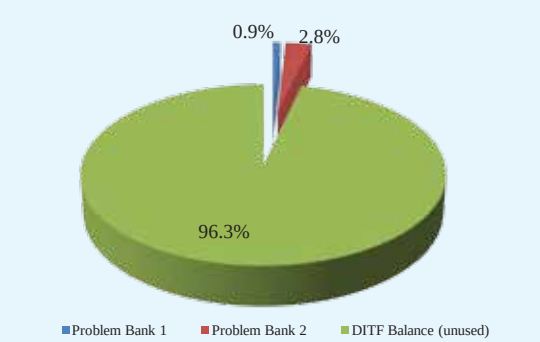
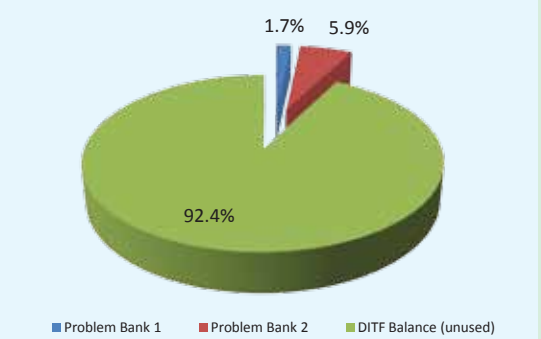


Chart B3.3.2: Usage of fund from DITF to liquidate two private commercial problem banks at proposed enhanced level.



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

Even, if a series of bank run occurs, DITF is able to compensate up to 29 small banks (Chart B 3.3.3), as an ascending order of their corresponding deposit base, irrespective of category. However, the covered amount of few large banks with large deposit base could not be compensated with the current capacity of the DITF (hypothetical scenario).

(Continued)

(Continued Box 3.3)

Chart B3.3.3: Optimum number of small banks an be liquidated using fund from DITF.

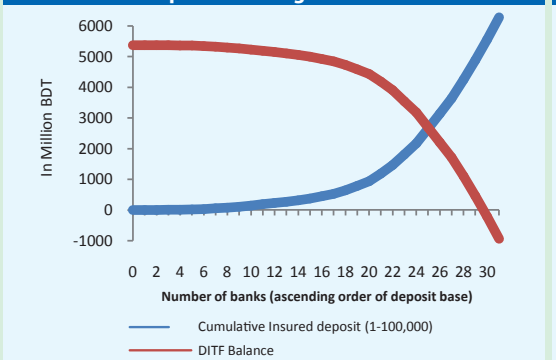
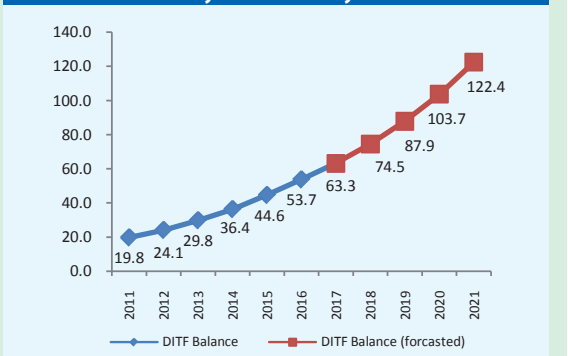


Chart B3.3.4: Forecasted Depositors' Safety Net in next 5 years



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

Since there is no history of liquidation of a single bank in Bangladesh since incorporation of deposit insurance system in 1984, the deposit insurance fund (later on, named as Deposit Insurance Trust Fund, DITF) has grown up to a sizeable amount of BDT 53.7 billion. Assuming no banks will fail and therefore be liquidated within the next 5 years, the fund may reach to BDT 122.4 billion in 2021* (Chart B 3.3.4).

*** Methodology of forecasting the Deposit Insurance Trust Fund (DITF):**

1. Total time and demand liabilities (TTDL) are forecasted with geometric mean;
2. Insurable deposits are forecasted based on their relationship between insurable deposits and TTDL;
3. Assessable deposits (base value for determining the premium) are computed by deducting the Statutory Liquidity Requirements (SLR);
4. The relationship between premium (collected) and insurable deposits is then estimated.
5. Cumulative premiums are forecasted;
6. The relationship between the deposit insurance trust fund (DITF) and cumulative premiums is estimated and used for forecasting the DITF.

3.7 BANKING SECTOR PROFITABILITY

The banking sector attained 4.9 percent growth in net profit (net income after provision and tax) in CY16 compared to that of CY15.

Banking sector's operating profit (profit before provision and tax) slightly decreased to BDT 215.6 billion in CY16 from BDT 216.8 billion in CY15, recording a decline of 0.5 percent. There was an increase (22.54%) in net interest income in CY16, however, this increase could not offset the decline in operating profit as net non-interest income[23] shrank in CY16 compared to that of CY15. This decline in net non-interest income was mainly due to the increase in the non-interest expenses.

In spite of the decrease in operating profit, net profit increased by 4.9 percent from BDT 79.2 billion in CY15 to BDT 83.1 billion in CY16. This improvement in reported net profit could be attributed to a decline in loan loss provision in CY16. The loan loss provisions decreased by 6.3 percent from BDT 76.9 billion in CY15 to BDT 72.1 billion in CY16.

While the ROA of the banking industry as a whole decreased slightly, the ROE increased a little in CY16 as compared to that of CY15.

[23] Non-interest Income – Non-interest Expenses.

Return on asset (ROA) decreased by 6 basis points and reached to 0.71 percent at end-December 2016 from 0.77 percent at end-December CY15. On the other hand, the return on equity (ROE) moved to the opposite direction, it increased by 34 basis points and reached to the levels of 9.71 percent in CY16 from 9.37 percent in CY15. Despite an increase in the net profit in CY16, the ROA decreased due to the fact that the total assets of the banking industry increased at higher rate than the increase in net profit.

CHART 3.30: BANKING SECTOR RETURN ON ASSETS (ROA): CY16

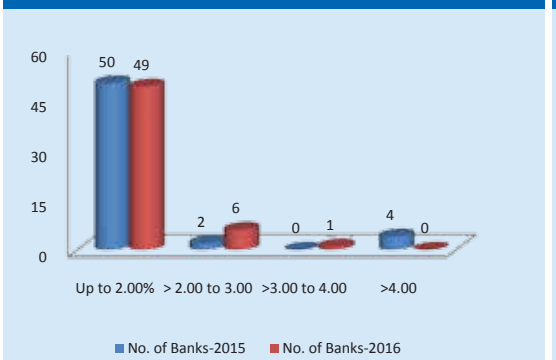
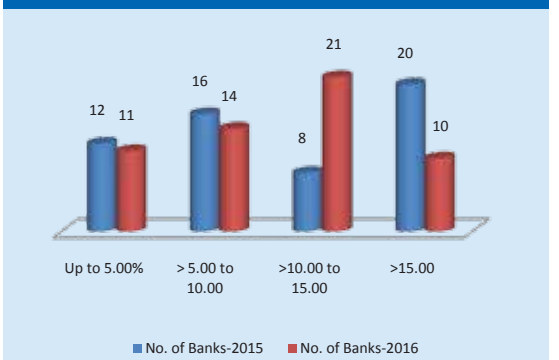


CHART 3.31: BANKING SECTOR RETURN ON EQUITY (ROE): CY16

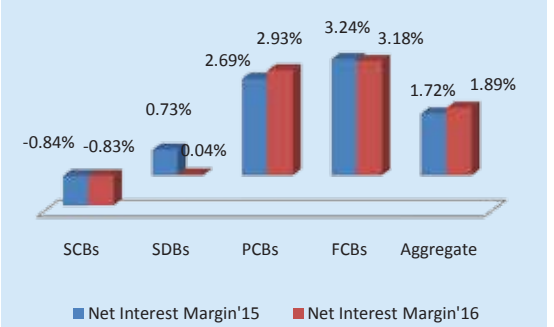


Source: DOS, BB, compilation: FSD, BB

Apart from a few banks, overall banking sector showed a stable performance in profitability during CY16 as indicated by the above graphs. Number of banks with higher ROEs increased in CY16; around 55 percent of total number of banks had ROEs higher than 10 percent. In terms of ROA, the performance appears not to be very different from CY15 level. However, it is noticeable that the number of banks having super profitability with ROA above 4.0 percent and ROE above 15.0 percent, declined in CY16. This decline indicates competitive profitability scenario for banks in CY16 than that of CY15.

In CY16, the overall Net Interest Margin[24] (NIM) for the banking industry increased to 1.89 percent from 1.72 percent in CY15.

CHART 3.32: BANK TYPE WISE NET-INTEREST MARGIN IN CY15 & CY16



Source: DOS, BB, compilation: FSD, BB

In terms of different components of profitability, the net interest margin (NIM) increased slightly, by 17 basis points from 1.72 percent in CY15 to 1.89 percent in CY16. The increase in NIM, among other factors, can be attributed to a decrease in overall interest expenses in the industry[25].

The NIM of FCBs was 3.18 percent in CY16, remaining slightly lower than that of last year (CY15). The NIM of FCBs also continued to remain higher than that of all other categories of banks in CY16. On the other hand, the NIM of PCBs increased from 2.69 percent (CY15) to 2.93 percent in CY16. This increase of NIM of PCBs actually contributed to the overall increase of NIM in CY16.

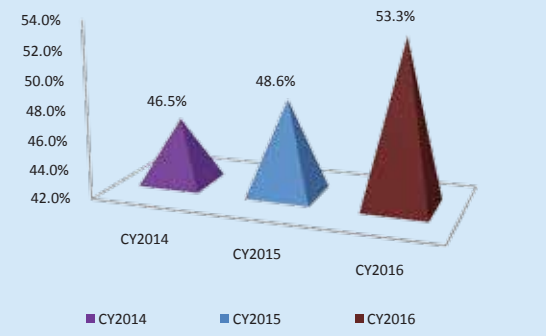
The SCBs, like previous year, also experienced negative NIM in CY16. The NIM of SDBs fell down to 0.04 percent in CY16.

[24]Net interest margin is a measure of the difference between the interest income generated and the amount of interest paid out to their lenders, relative to the amount of their (interest earning) assets.

[25]Total interest expenses decreased by 6.11% in CY16 from that of CY15.

The ratio of non-interest expense to gross operating income[26], a measure of the efficiency ratio, increased by 4.7 percentage points from 48.6 percent in CY15 to 53.3 percent in CY16, indicating that non-interest expenses increased at higher rate than the increase in gross operating income.

CHART 3.33: YEAR-WISE NON-INTEREST EXPENSE TO GROSS OPERATING INCOME RATIO

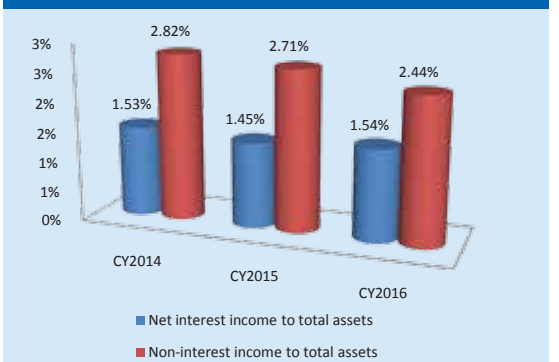


Source: DOS, BB; compilation: FSD, BB

The ratio of net interest income to total assets increased by 9 basis points from 1.45 percent in CY15 to 1.54 percent in CY16 while the ratio of non-interest income to total assets declined by 27 basis points from 2.71 percent in CY15 to 2.44 percent in CY16.

The interest rate spread reduced slightly in CY16 compared to that of CY15.

CHART 3.34: BANKING SECTOR INCOME BY SOURCES



Source: DOS, BB, compilation: FSD, BB

In CY16, the overall interest rate spread declined slightly. In most of the months in CY16 the spread was lower than that of CY15. The weighted average interest rate spread of all banks dropped from 4.8 percent in December 2015 to 4.7 percent in December 2016. The decline in the spread could have a number of causes, such as a shift among different classes of interest-earning assets or interest-bearing liabilities, general decline in market interest rates, BB's stringent supervision to keep the spread under the prescribed limit etc. It has been observed that the weighted average lending rate for the banking industry declined from 11.2 percent in December 2015 to 9.9 percent in December 2016. The weighted average deposit rate also experienced a decline from 6.3 percent in December 2015 to 5.2 percent in December 2016.

CHART 3.35: BANKING SECTOR MONTHLY WEIGHTED AVERAGE INTEREST RATE SPREAD FOR CY16

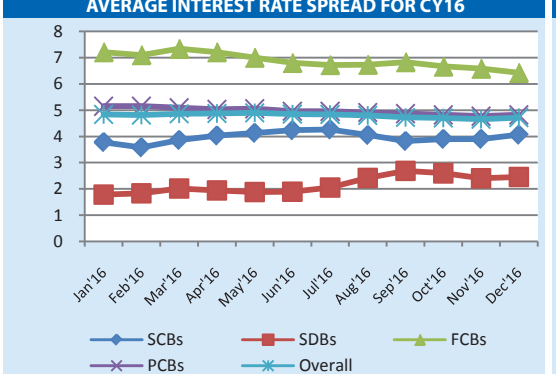
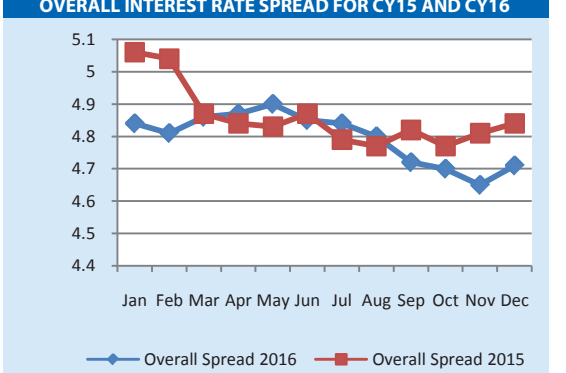


CHART 3.36: BANKING SECTOR MONTHLY WEIGHTED AVERAGE OVERALL INTEREST RATE SPREAD FOR CY15 AND CY16



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

[26]Gross Operating Income=Net Interest Income + Non-interest Income

A significant difference in spreads is noticeable among different categories of banks from the above chart. However, the weighted average spreads of SCBs, SDBs and PCBs remained close to the lower single digit level (5.0 percent) as instructed by Bangladesh Bank. On the other hand, for foreign banks, the spreads continued to remain comparatively higher. Overall, the spread tended to decline in CY16 which signals an improvement in efficiency and competitiveness in the banking sector of Bangladesh.

3.8 CAPITAL ADEQUACY

At end-December 2016, the capital to risk-weighted asset ratio (CRAR[27]) of the banking industry remained unchanged at 10.8 percent compared to that of end-December 2015.

In the review year, CRAR of the banking industry remained stable at the 2015 level (i.e. 10.8 percent). Compared with the end-December 2015 position, the proportion of banks compliant with the minimum CRAR improved slightly as of end-December 2016. Almost 88 percent of the scheduled banks were able to maintain their CRARs at 10.0 percent or higher in line with Pillar 1 of the Basel III framework[28]. Importantly, as evident from chart 3.45, a substantial share of banking assets was concentrated in the CRAR compliant banks; 35 banks' CRARs were within the range of 10-16 percent and their assets accounted for nearly 77 percent of the total banking industry's assets.

CHART 3.37: CRAR OF THE BANKING INDUSTRY

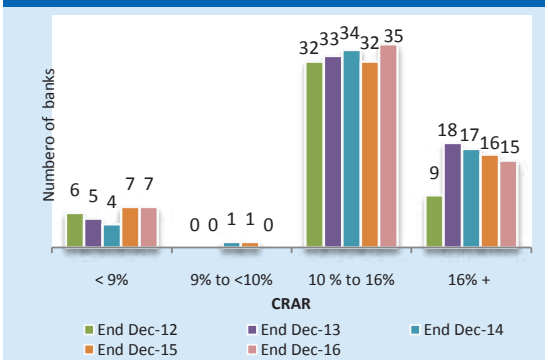
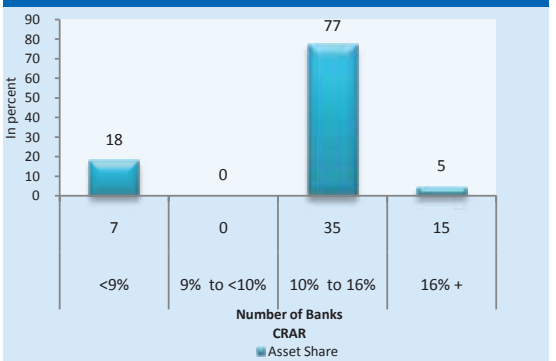


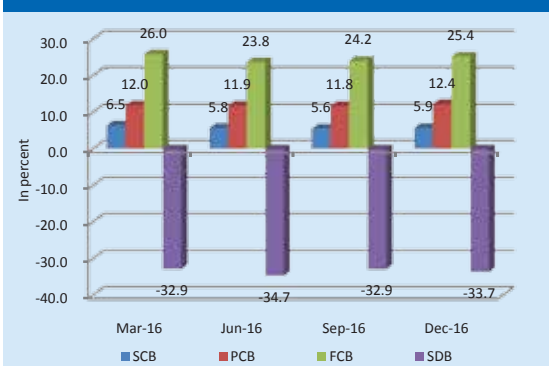
CHART 3.38: ASSET SHARE OF BANKS BASED ON CRAR IN CY16



Source: DOS, BB; computation: FSD, BB

The Capital Conservation Buffer (CCB) requirement for banks started from early 2016 and would be fully implemented by 2019 in line with the Basel III framework[29]. Against the regulatory requirement of 0.625 percent for CY16, banking industry maintained a CCB of 0.80 percent. During the reporting period, 47 out of 57 banks were able to maintain the minimum required CCB.

CHART 3.39: BANKING GROUP-WISE CRAR OVER THE CY16



Source: DOS, BB; computation: FSD, BB

Banking group-wise analysis of CRAR demonstrates that foreign commercial banks (FCBs) maintained the highest level of CRAR while specialized development banks (SDBs) and state-owned commercial banks (SCBs) could not maintain the minimum regulatory capital requirement. Private commercial banks (PCBs) maintained a steady rate of CRAR indicating notable soundness in that segment.

At end-December 2016, the CRAR of the banking industry stood at 10.8 percent remaining same compared with the position of end-December 2015. Moreover, Tier-1 capital ratio of the

[27]Termed as capital adequacy ratio (CAR) under Basel II.

[28]The minimum regulatory requirement for CRAR was 10 percent in 2016.

[29]Banks were required to maintain the CCB of 0.625 percent, above the regulatory minimum capital requirement of 10.0 percent during the review year.

banking industry reached 7.9 percent as opposed to 8.2 percent scored at end-December 2015. It is mentionable that Tier-1 capital ratios were 8.2, 7.6, 7.6 and 7.9 percent in the first, second, third and fourth quarters of CY16 respectively (Chart 3.40). Though the Tier-1 ratios were lower than those of the respective quarters of CY15, still the ratios were much higher than the minimum regulatory requirement of 5.5 percent.

As of end-December 2016, under Pillar 1 of the Basel-III framework, risk-weighted assets (RWA) arising from credit risk accounted for nearly 87 percent of the total industry's RWA. The next positions were held by operational and market risks respectively (Chart 3.41).

CHART 3.40: TIER-1 RATIO AND OVERALL CRAR

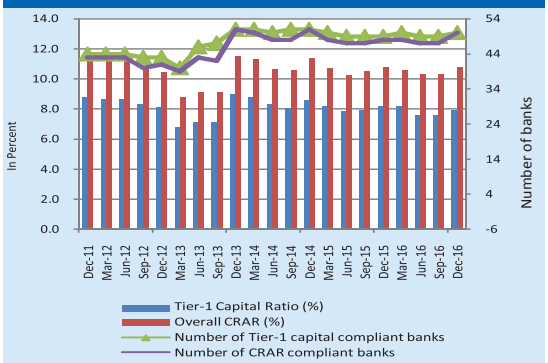
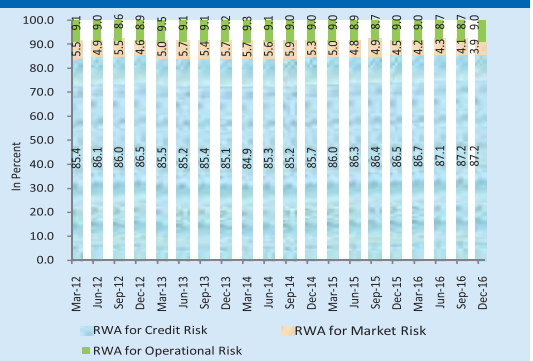


CHART 3.41: DISTRIBUTION OF RWA IN CY15



Source: DOS, BB; computation: FSD, BB

Taking the cross-country scenario into account (Table 3.3), however, the capitalization of the banking sector of the country is still somewhat lower compared with the ratios of India, Sri Lanka and Pakistan.

TABLE 3.3: COMPARISON OF CAPITAL ADEQUACY INDICATORS OF THE NEIGHBORING COUNTRIES

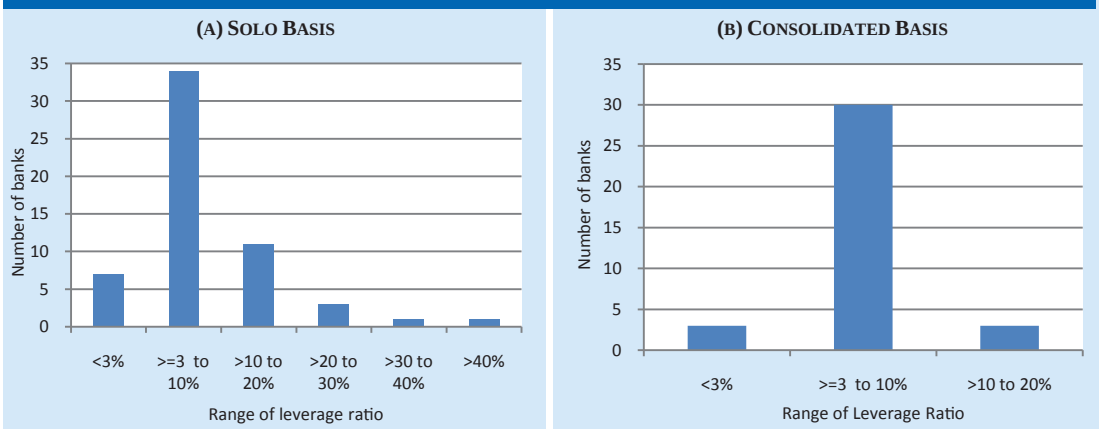
Countries	CAR/CRAR (%)					
	2011	2012	2013	2014	2015	2016
India	13.5***	14.3*	12.7***	12.8***	12.7***	13.3***
Pakistan	14.1**	15.4****	15.5**	17.1****	17.9****	16.2****
Sri Lanka	14.5***	15.0***	16.3****	16.9**	14.2****	14.3****
Bangladesh	11.4	10.5	11.5	11.4	10.8	10.8

as of end-March, **as of end-June, * as of end-September, ****as of end-December*
Source: RBI, SBP, CBSL, and BB

3.9 LEVERAGE RATIO

In order to avoid build-up of excessive on- and off-balance sheet leverage in the banking system, a simple, transparent, non-risk based leverage ratio has been introduced under the Basel III framework. The leverage ratio is calibrated to act as a credible supplementary measure to the risk-based capital requirements.

CHART 3.42: LEVERAGE RATIO OF BANKS AT END-DECEMBER 2016



Source: DOS, BB.

At end-December 2016, the minimum requirement for leverage ratio was 3.0 percent, on both solo and consolidated bases[30]. As evident from Chart 3.42, against the regulatory requirement the banking sector maintained a leverage ratio of 4.9 and 5.2 percent on solo and consolidated basis respectively; out of 57 banks, 50 maintained leverage ratio of 3.0 percent or higher. On the other hand, in the case of consolidated data, out of 36 banks, 33 were able to fulfill the regulatory requirement.

3.10 INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

Banks in Bangladesh have entered into the Basel III regime in a phased manner started from January 01, 2015 with full implementation planned to be achieved by the end of 2019. As a step towards implementation of Pillar 2 of Basel III, Bangladesh Bank (BB) commenced working for implementation of Internal Capital Adequacy Assessment Process (ICAAP) in the banks of Bangladesh. BB provided the banks a process document to help evaluate their internal processes and strategies to ensure adequate capital resources covering all material risks. Banks are preparing ICAAP reports annually and submitting the same to BB along with supplementary documents while BB reviews and evaluates banks' ICAAP and strategies. Based on the findings of the ICAAP reports and SREP[31] inspection based on December 2015, a series of bilateral meetings with the banks has been started on January 23, 2016 and expected to be completed by May 2017.

Under ICAAP, banks need to calculate capital charges against various risks, e.g., residual risk, concentration risk, liquidity risk, reputation risk, strategic risk, settlement risk, appraisal of core risk management practice, environmental and climate change risk and other material risks. From the experience of last meetings (held for 2014, 2013 and 2012) it has been observed that additional capital requirement against residual risk mainly due to documentation error would be the highest among the pillar 2 risks. Apart from that, strategic risks and appraisal of core risk management practice are the other major concerns for banks.

[30]For the quarter ended December of CY16, all 57 scheduled banks submitted leverage ratio returns on a solo basis. In addition, 36 banks also submitted their returns on a consolidated basis.

[31]Supervisory Review Evaluation Process.

3.11 BANKING SECTOR LIQUIDITY

The banking industry did not experience any liquidity pressure in CY16, as indicated by falling call money rate and low advance-to-deposit ratio (ADR).

The liquidity scenario which is assessed mainly by the advance-to-deposit ratio (ADR) and call money rate remained mostly stable during CY16. ADR remained at a low level albeit slightly higher than the CY15 level, while the call money rate continued to decrease, indicating prevalence of no liquidity stress in the banking system.

In CY16, the ADR increased to 71.9 percent after being remained stable at 71.0 percent in the previous two years. This is because of the higher growth rate of loans and advances (15.3 percent) recorded during the year than that of deposits (12.8 percent). However, the ADR of the banking industry remained much below the benchmark[32] set by BB due to the fact that, in monetary terms, deposits were 27.0 percent higher than loans and advances in CY16.

CHART 3.43: BANKS' CATEGORY-WISE ADR: DEC 2016

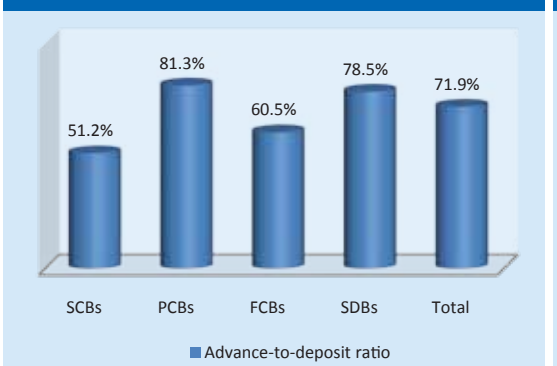
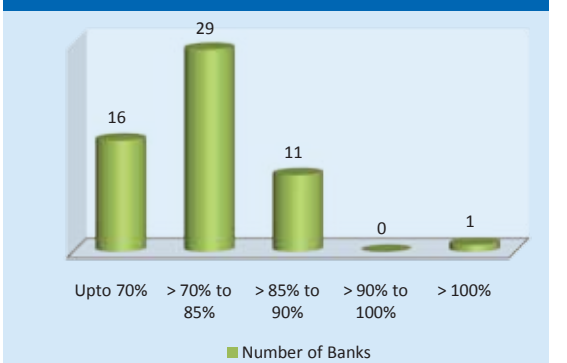


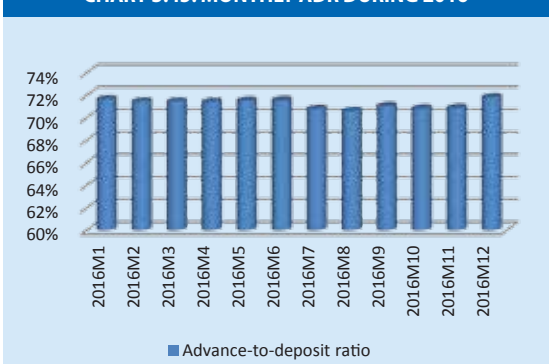
CHART 3.44: DISTRIBUTION OF BANKS BY ADR: DEC 2016



Source: DOS, BB.

During the review year, ADR of PCBs increased notably to 81.3 percent from 79.5 percent in CY15. This is an encouraging sign for the Bangladesh economy as PCBs as a whole provide much of the financing required for business activities in Bangladesh. On the other hand, FCBs demonstrated a decline in their ADR from 63.8 percent in CY15 to 60.5 percent in CY16. As of December 2016, only 12 banks had ADR above 85 percent, among which 6 are Islamic Shari'ah based banks and one is SDB. This indicates that most of the banks did not face any liquidity pressure during the reporting period.

CHART 3.45: MONTHLY ADR DURING 2016

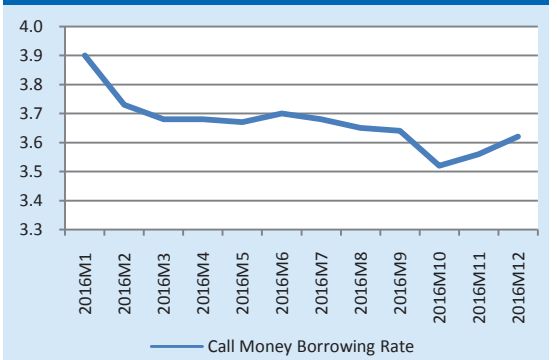


Monthly ADR data demonstrates that ADRs remained well below the maximum allowable limit throughout the year with no abrupt volatility in the liquidity condition in the market. The ADR showed a declining trend from the mid-2016; however it picked up at the end of the year. Compared with the previous year, monthly ADRs showed improvement, which is encouraging for economic growth and financial stability as well.

Source: DOS, BB.

[32]With a surge in ADR in the banking system in early 2011, banks were instructed in February 2011 to rationalize their ADRs within a prescribed level (maximum 85 percent and 90 percent for conventional and Islamic Shari'ah based banks respectively) by June 2011. Since then BB has been pursuing the policy and monitoring the ADRs of banks within that limit, other than a few exceptions.

CHART 3.46: BANKING SECTOR CALL MONEY BORROWINGS RATE



Source: Monthly Economic Trends, February 2017, BB.

The interbank call money rate continued the declining trend during the first three quarters of 2016. Since January 2015, the call money rate kept falling to reach 3.5 percent in October 2016 and then increased marginally to 3.6 percent in December 2016. This trend too suggests that there is no liquidity stress in the banking industry.

The newly introduced liquidity indicators[33] also demonstrate that banking industry was well positioned to absorb any liquidity shock. Group-wise[34] analysis shows that all banking groups maintained LCRs[35] much above the minimum regulatory requirement of 100 percent throughout CY16 (Chart 3.47). Noteworthy that SCBs maintained the highest ratios over the years. During this period, all bank groups were also able to maintain the minimum regulatory requirement of NSFR[36] (Chart 3.48).

CHART 3.47: BANKS' GROUP-WISE MONTHLY LCR IN 2016

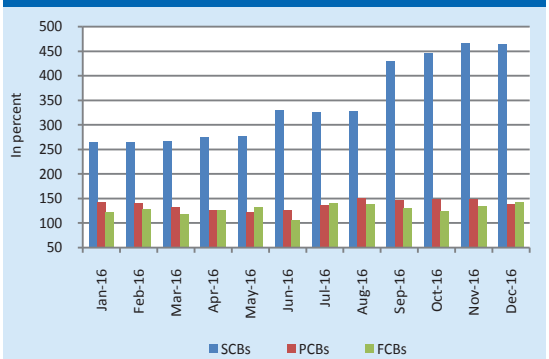
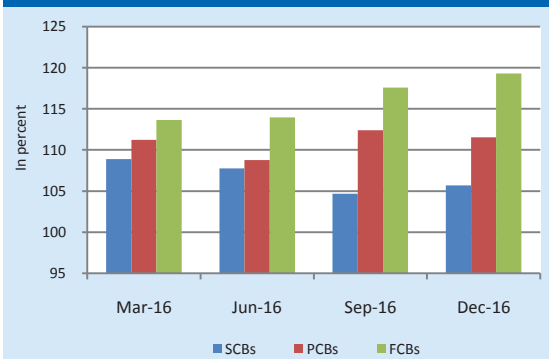


CHART 3.48: BANKS' GROUP-WISE QUARTERLY NSFR IN 2016



Source: DOS, BB.

In addition to ADR, LCR and NSFR as measures of liquidity, Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) can be used to ascertain the liquidity position of banks. As of end-December 2016, all banks were able to maintain the minimum CRR (6.5 percent) and SLR (13.0 percent for conventional banks and 5.5 percent for Islamic Shari'ah based banks). In general, liquidity situation of the banking industry continued to indicate a position of excess liquidity in CY16; at the same time, the industry remained well positioned to withstand any liquidity stress.

[33] Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NFSR) introduced in CY15.

[34] SDBs are exempted from maintaining LCR and NSFR.

[35] LCR, which measures a bank's need for liquid assets in a stressed environment over the next 30 calendar days is used by banks to assess exposure to contingent liquidity events.

[36] NSFR aims to limit over-reliance on short-term wholesale funding during times of abundant market liquidity and encourage better assessment of liquidity risk across all on- and off-balance sheet items. It measures a bank's need for liquid assets in a stressed environment over one year period. Minimum regulatory requirement is 100 percent.

BOX 3.4: INTERBANK MARKET

Interbank market is one of the important sources of funding (both for long and short tenure) for banks and FIs. Bangladesh Bank (BB) launched a liquidity assessment tool named Interbank Transaction Matrix (ITM) in 2014. This analytical tool enables BB to assess the positions and sources of liquidity in the interbank market. At end-December 2016, interbank funded and non-funded exposures were BDT 580.77 billion and BDT 101.98 billion respectively.

Volume of transactions in the call money was BDT 27.72 billion, decreased by BDT 0.54 billion from December 2015 and that in interbank repo market was BDT 9.86 billion, decreased by BDT 16.88 billion from December 2015.

The interbank deposit exposure, at end-December 2016, was BDT 415.99 billion, increased by 9.51 percent from December, 2015 (BDT 379.87 billion). During calendar year 2016 (CY16) additional BDT 36.12 billion has been deposited into interbank deposit market.

Chart B3.4.1: Fund Providers in Interbank Deposit Market

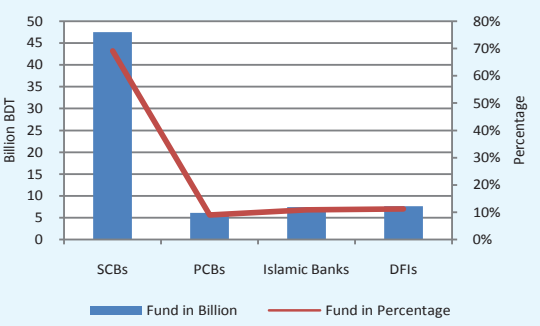
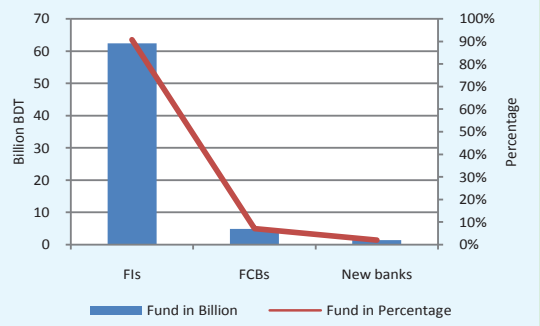


Chart B3.4.2: Fund Receivers in Interbank Deposit Market



Source: FSD, BB.

As on December, 2016, SCBs are the major fund providers with BDT 47.49 billion in interbank deposit market and FIs are the major fund receivers with BDT 62.37 billion covering 90.79 percent of the total borrowing from interbank deposit market.

Table B3.4.1: Interbank transactions at end-December, 2015 and 2016

(Figure in billion BDT)

Components	December-16	December-15	Change	Change (%)
Funded	**580.77**	**536.31**	**44.46**	**8.29%**
Deposit	415.99	379.87	36.12	9.51%
Call Money	27.72	28.26	-0.54	-1.92%
Investments	68.90	51.89	17.01	32.78%
Loans	52.99	45.24	7.75	17.13%
Non- Funded	**101.98**	**90.45**	**11.53**	**12.75%**
Guarantee	33.78	25.96	7.82	30.13%
Off Balance	31.69	27.86	3.83	13.74%
Commitment	36.50	36.63	-0.13	-0.35%
Share	16.60	19.35	-2.75	-14.20%
Director Loan	956.80	909.58	47.22	5.19%
Liquid Asset	1731.97	1538.46	193.51	12.58%
Capital	929.15	872.11	57.04	6.54%
Repo	9.86	26.74	-16.88	-63.13%

Source: FSD, BB.

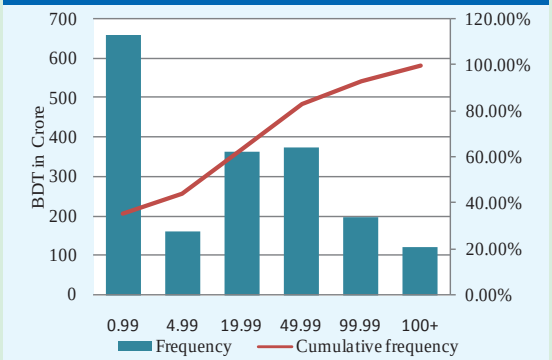
At end-December 2016, there were 1,881 financial transactions established between the banks and FIs (25.0 percent of the total available financial transactions) with an average weight of BDT 0.28

(Continued)

(Continued Box 3.4)

billion. 1,061 financial transactions are above BDT 0.05 billion and 920 transactions are above BDT 0.10 billion. 62.89 percent of the transactions are below BDT 0.20 billion.

Chart B3.4.3: Histogram of link weight, December 2016



Source: FSD, BB.

A histogram showing distribution of the weight of the transactions is shown in Chart B3.4.3. There were 124 transactions whose exposure exceeds BDT 1.00 billion. Top 30 transactions (by the weight of exposure) accounted for BDT 110.30 billion or 18.99 percent of the total funded exposures (repo adjusted). Number of transactions (between BDT 0.05-0.20 billion) decreased by 3.46 (13 transactions decreased) percent since October 2016. It shows that the market is somewhat stable in terms of establishing or eliminating bilateral transactions among banks.

On the other hand, large exposures (exposures above BDT 1.00 billion) increased by 10.71 (12 transactions increased) percent since October 2016. Increase in number of the high valued transactions compared to total funded exposure growth suggests that banks are now more concentrated to certain lending institutions.

3.12 PERFORMANCE OF BRANCHES OF LOCAL BANKS OPERATING ABROAD

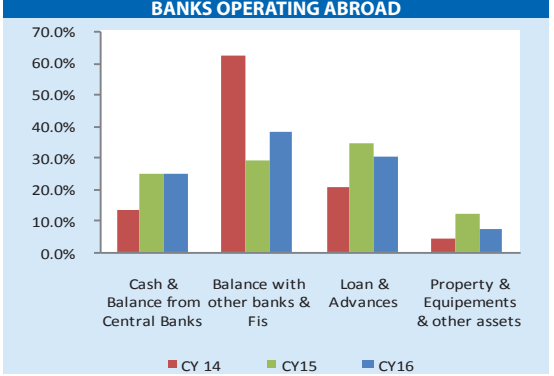
Exposures of local banks operating abroad are steadily growing for the last couple of years. Local commercial banks are now operating in 15 countries with 7 branches, 5 representative offices and 34 exchange houses as of end-December 2016. Three bank branches are located in Southeast Asia and the rest are in the Middle East.

One state-owned and one private commercial bank are operating with three branches in India, whereas one state-owned commercial bank is operating with 4 branches in United Arab Emirates (UAE). The overseas business networks of local banks are performing their core banking operations as deposit taking and lending institutions with gradual growth as well as serving Bangladeshi expatriates working in the respective countries to facilitate remittance to Bangladesh. These bank branches are encouraging and helping Non-Resident Bangladeshis (NRBs) to send their hard earned money using formal banking channel. Moreover, these bank branches are contributing to enhance the international trade services to local importers and exporters.

3.12.1 ASSETS STRUCTURE OF OVERSEAS BRANCHES

Overseas branches of local banks experienced a mixed growth in their asset composition in CY16 compared to CY15 as the share of loans and advances slightly declined whereas the share of balance with host central banks as well other banks and FIs increased.

CHART 3.49: ASSETS COMPOSITION OF BANGLADESHI BANKS OPERATING ABROAD



Source: Scheduled Banks; compilation: FSD, BB

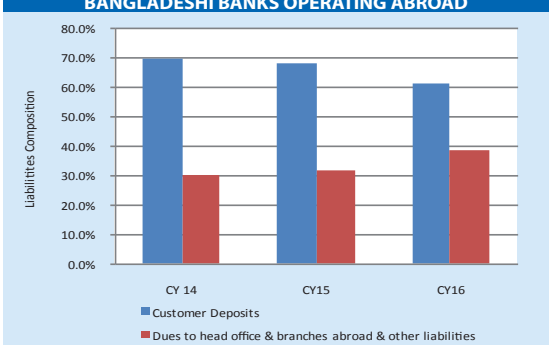
The total assets of overseas branches of local banks were USD 500.4 million at end-December 2016, which was only 0.34 percent of total industry assets and USD 103.6 million higher than that of the end-December 2015. This asset growth was mostly due to the increase in balance with other banks & financial institutions by USD 76.5 million between end-December 2015 and end-December 2016.

In CY16 the asset growth of the overseas branches was 25.84 percent in comparison with the preceding year. Mainly balance with the central bank and interbank market of USD 191.0 million played a significant role in this growth of assets. Though the shares of loans and advances were 30.2 percent of the total assets which is 3.9 percentage points lower than the previous year, indicating that these branches were drifting away from lending towards traders, NRBs or business enterprises and more keen to invest to financial markets which are subjected to market risks. However, the share of assets and liabilities of overseas bank branches are still insignificant which is indeed less than one percent of banking system.

3.12.2 LIABILITIES STRUCTURE OF OVERSEAS BRANCHES

In 2016 the total liabilities of the overseas branches increased by 29 percent in comparison with 2015.

CHART 3.50: LIABILITIES COMPOSITION OF BANGLADESHI BANKS OPERATING ABROAD



Source: Scheduled banks; compilation: FSD, BB

Various deposit accounts constituted 61.5 percent of the total liabilities of overseas branches of local banks. However, customer deposits increased by USD 38.2 million in CY16 while liabilities in the sub-head of dues to head offices & branches abroad and other liabilities, which constituted around 38.5 percent of the total liabilities, increased by 57.6 percent from the preceding year due to accumulation of various payables by one state-owned commercial bank operating in middle east.

3.12.3 PROFITABILITY OF OVERSEAS BRANCHES

Aggregate net profit of the overseas bank branches in 2016 increased by 34 percent from that of 2015.

Net profit of all the overseas branches[37] of local banks during CY16 was USD 6.7 million, which is 1.7 million higher than that of the previous year. As a result ROA increased from 1.26 percent to 1.34 percent in the year 2016. Two state-owned commercial banks with their six overseas branches contributed 83.7 percent of total overseas profit, whereas one private bank with one branch contributed 16.3 percent of total overseas profit. Lending by these overseas branches was mostly concentrated in financial institutions where credits to non-financial corporate were found as sensitive to economic cycles of their host countries. This behavior might be their strategy to cope with business cycle, which may affect their profitability during economic downturn in host countries. The financial health of overseas branches of local banks did not pose any systemic consequences on the business of their parents in Bangladesh during 2016.

3.13 ISLAMIC BANKING

The introduction of equity based interest-free Islamic banking system remains significant in the country's money market demonstrating its continuous strong growth since its inception in 1983. This achievement is fairly reflected in its steady market share in various financial products. Islamic banks also play considerable role in financing key sectors of the economy in Bangladesh. At present, 8 full-fledged Islamic banks are operating with 1047 branches out of total 9654 branches of the banking industry; in addition, 18 Islamic banking branches of 9 conventional banks and 25 Islamic banking windows of 8 conventional banks are providing Islamic banking services. These banks have been operating in the financial system of Bangladesh successfully over the last three decades not as a separate component but as an alternative to conventional banks.

[37]Balances denominated in foreign currencies are converted to USD and recorded at the exchange rate from the January 2016 issue of Monthly Economic Trend, Bangladesh Bank as on 31 December 2016.

3.13.1 GROWTH OF ISLAMIC BANKING

Islamic banks are showing a steady growth over the last couple of years in terms of assets, deposits, investments (loans and advances);[38] and shareholders' equity.

CHART 3.51: GROWTH OF ISLAMIC BANKING: END-DECEMBER, 2016

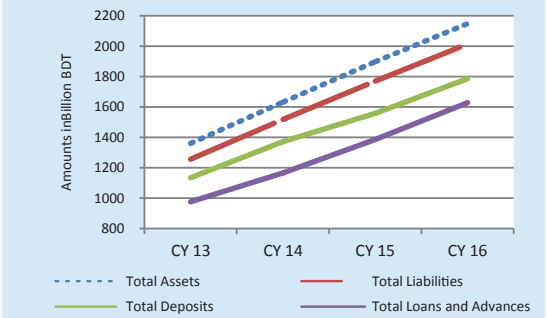
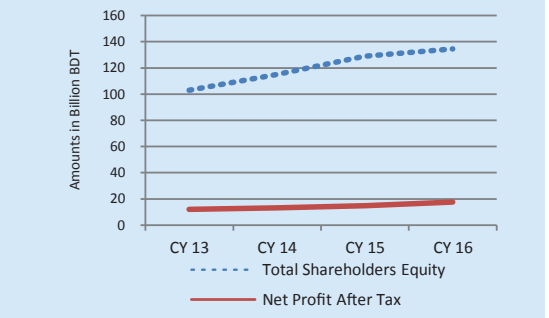


CHART 3.52: GROWTH OF ISLAMIC BANKING: END-DECEMBER, 2016



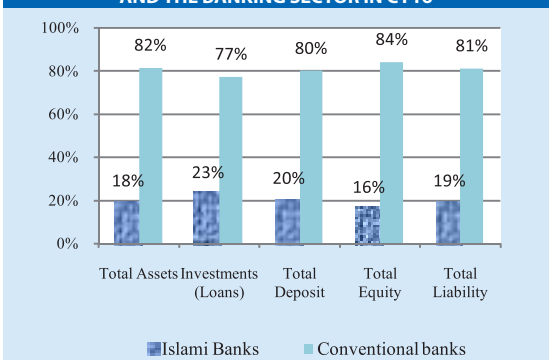
Note: Excluding Islamic banking branches/windows of conventional banks.
Source: DOS, BB; computation: FSD, BB.

The persistent growth of Islamic banking sector is depicted in the charts 3.51 and 3.52. It appears that the growth of Islamic banking sector decreased in CY16 compared to the previous year. In CY16, Islamic banking assets increased by 13.2 percent (16.3 percent in CY 15); investments (loans and advances) grew by 17.5 percent (18.6 percent in CY15), while the overall growth of loans of the banking industry was 15.3 percent. The liabilities also grew by 13.8 percent (16.6 percent in CY15), mostly due to a positive growth in the deposit base of 14.7 percent (13.6 percent in CY15) compared to growth of 12.8 percent in the overall deposit base of the banking industry.

3.13.2 MARKET SHARE OF ISLAMIC BANKS

Islamic banks' market share remains mostly static at about one-fifth of the total banking system.

CHART 3.53: MARKET SHARE OF ISLAMIC BANKS AND THE BANKING SECTOR IN CY16



Source: DOS, BB; computation: FSD, BB.

The aggregate market share of Islamic banks in CY16 (excluding Islamic banking branches/ windows of conventional banks) remained almost same as CY15. In a nutshell, at end December 2016, Islamic banks possessed 18 percent (18 percent in CY15) of total assets, 23 percent (22 percent in CY15) of investments (loans), 20 percent (19 percent in CY15) of deposits, 16 percent (15 percent in CY15) of equity and 19 percent (19 percent in CY15) of liabilities of the overall banking industry .

3.13.3 PROFITABILITY OF ISLAMIC BANKS

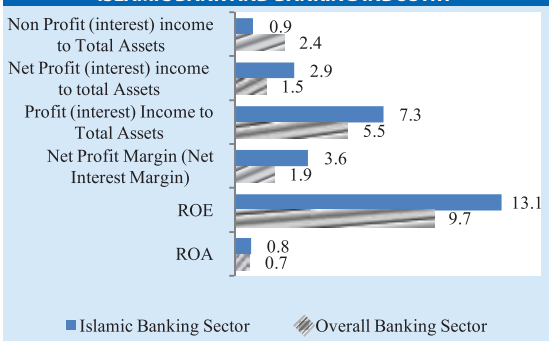
Profitability of Islamic banking sector in CY16 was higher compared to the overall banking industry. The key indicators of profitability were very competitive with the banking sector. In terms of individual earning of banks, one of the Islamic banks ranked at third from the top in the entire banking industry.

In 2016, the net profit of Islamic banks increased by 18.1 percent from CY15. In contrast, the net profit of the overall banking system was increased by 4.9 percent in CY16 (31.7 percent in CY15). On

[38] Islamic Shari'ah based banks term loans and advances as investments.

the other hand, in the absence of an established Islamic bond market, these banks operate with a special liquidity arrangement, and that may also help them to generate more income with higher investment funds compared to loanable funds of conventional banks.

CHART 3.54: SELECTED INCOME RATIOS FOR ISLAMIC BANK AND BANKING INDUSTRY



Source: DOS, BB; computation: FSD, BB.

During CY15, Islamic banks contributed to 21.2 percent of total industry profits. The profit income[39] to total assets ratio of Islamic banks reached 7.3 percent, which is higher than that of the industry average (interest income to total assets ratio was 5.5 percent).

On the other hand, the non-profit income to total assets ratio was only 0.9 percent as compared with the industry average of 2.4 percent, representing a lower income from off-balance sheet (OBS) transactions and service and fee-based incomes.

The ROA of the Islamic banking industry was 0.8 percent, a bit higher than the overall banking industry in CY16, indicating a comparatively more efficient use of assets by the Shari'ah compliant banks. On the other hand, the ROE of the Islamic banking industry in CY16 stood at 13.1 percent, which is higher than the overall banking industry's ROE of 9.7 percent, indicating the higher earnings of Islamic banks with relatively lower amount of equity.

3.13.4 ISLAMIC BANKS' LIQUIDITY

Islamic banks are found to have sufficient liquidity over the CY16 considering their Cash Reserve Ratio (CRR), Statutory Liquidity Requirement (SLR), and newly introduced Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) under Basel III accord.

Islamic banks are allowed to maintain their statutory liquidity requirement (SLR) at a concessional rate compared to that of the conventional banks, as Shari'ah-compliant SLR eligible instruments are not widely available in the market. Islamic banks are consistently maintaining statutory liquidity requirement of CRR and SLR as 6.5 percent and 5.5 percent of their total time and demand liabilities[40] respectively.

According to the roadmap towards implementation of Basel III, banks are required to maintain at least 100 percent (the minimum standard) of Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) from January 2015[41]. It may be mentioned that the banks in Bangladesh are maintaining LCR and NSFR, a new liquidity standard, introduced by the Basel Committee. LCR aims

CHART 3.55: LCR MAINTAINED BY CONVENTIONAL BANKS AND ISLAMIC BANKS

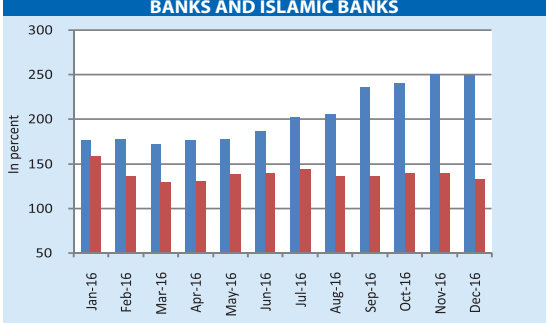
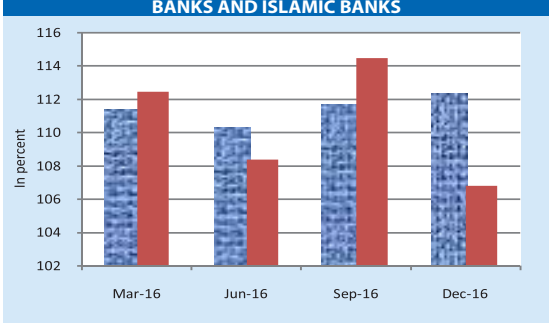


CHART 3.56: NSFR MAINTAINED BY CONVENTIONAL BANKS AND ISLAMIC BANKS



Source: DOS, BB; computation: FSD, BB.

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

[40]Refer to MPD Circular No. 02, dated-10/12/2013, and MPD Circular No. 01, dated-23/06/2014.

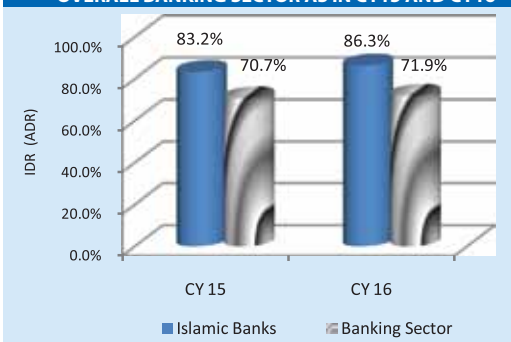
[41]Refer to DOS Circular No. 01, dated 01/01/2015.

to ensure that a bank maintains an adequate level of unencumbered, high-quality liquid assets that can be converted into cash to meet its liquidity needs for 30 calendar days. On the other hand, NSFR aims to limit over-reliance on short-term wholesale funding during abundant market liquidity and encourage better assessment of liquidity risk across all on- and off-balance sheet items.

Chart 3.55 and Chart 3.56 show that Islamic banks as well as conventional banks consistently maintained the required level of LCR and NSFR throughout the calendar year 2016.

The aggregate Investment-Deposit Ratio (IDR) of Islamic banks was 86.3 percent at end-December 2016, higher from 83.2 percent at end December 2015.

CHART 3.57: IDR (ADR) OF ISLAMIC BANKING AND THE OVERALL BANKING SECTOR AS IN CY15 AND CY16



Source: DOS, BB; computation: FSD, BB.

The ADR of the overall banking industry was 71.9 percent[42], lower than that of the Islamic bank group, due to a higher SLR requirement for conventional banks but yet quite below the maximum permissible level of 90 percent. Since there are limited sources of Shari'ah-compliant funds, Islamic banks can borrow funds either from the Islamic inter-bank money market, which started in 2012, or from the Islamic Investment Bonds Fund issued by the Government.

Since the IDRs of Islamic banks were below the regulatory maximum level of 90 percent, it indicates no sign of liquidity stress in these banks in CY16. To address the excess liquidity holding in the Islamic banks, Bangladesh Bank amended the 'Bangladesh Government Islami Investment Bond (Islami Bond) Policy, 2004'. The objective of such amendment was to develop a solid base for the Islamic bond market and also to channel excess liquidity into investments through Islamic bonds. The Debt Management Department (DMD) of Bangladesh Bank also issued a circular to introduce the auction process of Islamic bonds, referring to a gazette notification of 18 August 2014.

With the amendment of the Islamic Bond Policy, the maturity periods of Islamic bonds were re-fixed at 3 months and 6 months to help the Islamic banks/FIs to manage their funds smoothly; previously which were 6 months, 1 year and 2 years. The bonds will be issued based on the Profit Sharing Ratio (PSR) through open auction, i.e., the profit earned by investing in these bonds will be shared by the buyer and by the Bangladesh Bank as issuer. The profit of Islamic bonds will be equal to the profit of a three-month fixed deposit scheme of the issuing Islamic banks, instead of the previous profit rate of savings (Mudaraba) deposits. The bonds will be inter-changeable among the eligible[43] individuals and institutions, and will be used as an instrument for repo operations.

In case of selling Bangladesh Government Islami Investment Bonds (BGIIB), the government will have to share the profit (or loss) with the investing banks that accrue from the use of fund collected from such sales, and the fund will be used by the government complying Shari'ah requirements. This aspect of concern will be taken care of by the government to the satisfaction of the investing banks. If the government wants to use the funds for a longer term and in specific projects, then this type of short-term bond would not be the right choice. Financial instruments like long-term bonds, complying with Shari'ah requirements, popularly known as 'Sukuk', would be more appropriate. From specific projects, it becomes easier to calculate profit and loss, and the profit (also loss) can be shared with the fund suppliers or Sukuk buyers on a pre-agreed terms. It can be noted here that Bangladesh is yet to issue any Sukuk.

[42]Recommended maximum level is 85 percent.

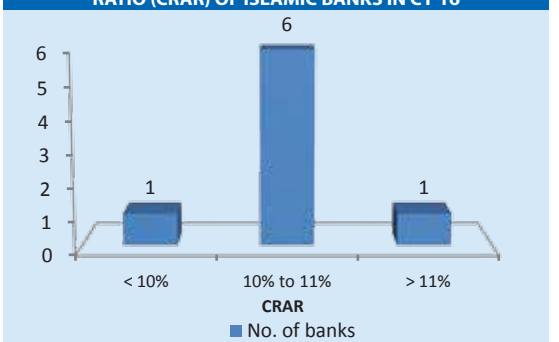
[43]Shari'ah based banks/financial institutions, conventional banks having Islamic windows, any person or institution are eligible to buy the bonds through the Shari'ah based banks/financial institutions, conventional banks having Islamic windows.

3.13.5 CAPITAL POSITION OF ISLAMIC BANKS

Under the Basel-III framework of Bangladesh, given the minimum Capital to Risk weighted Assets Ratio of 10 percent, seven out of eight full-fledged Islamic banks complied with the regulatory capital requirement in CY16.

For the banking system to be more resilient and shock absorbent, Basel Committee on Banking Supervision (BCBS) recommended to raise the quality and levels of regulatory capital. In line with the international best practices, Bangladesh Bank introduces Capital to Risk Weighted Assets Ratio (CRAR) in its 'Guidelines on Risk Based Capital Adequacy' and instructed the banks to maintain their CRAR to a fair ratio of at least 10 percent.

CHART 3.58: CAPITAL TO RISK WEIGHTED ASSETS RATIO (CRAR) OF ISLAMIC BANKS IN CY 16



Note: Excluding Islamic banking branches/windows of conventional bank
Source: DOS, BB; computation: FSD, BB.

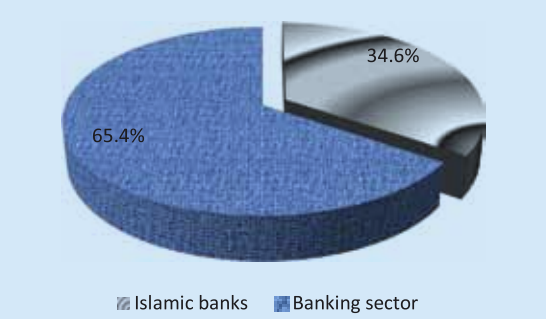
The stronger capital base maintained by Islamic banks indicates that these banks are strong enough to meet various kinds of shocks they are exposed to. Out of 8, 7 banks having CRARs more than 10 percent in CY16. However, from 2006, one Islamic bank's CRAR remained negative for historical huge cumulative loss and provision shortfall, and not changed much despite change of ownership. This bank has been operating under a restructuring plan since 2008.

3.13.6 REMITTANCE MOBILIZATION BY THE ISLAMIC BANKS

Islamic banks of Bangladesh collected and mobilized more than one-third of total wage earners' remittance in CY16, while holding one-fifth of total banking sector assets.

Bangladesh belongs to one of the top 10 wage earners' remittance recipient countries of the world. Foreign remittance has already been emerged as a prime driving force to the economic growth and poverty alleviation in the country. It is second in position among the foreign currency earning sector of Bangladesh economy.

CHART 3.59: SHARE OF REMITTANCES COLLECTED BY THE ISLAMIC BANKS AND THE OVERALL BANKING SECTOR IN CY16



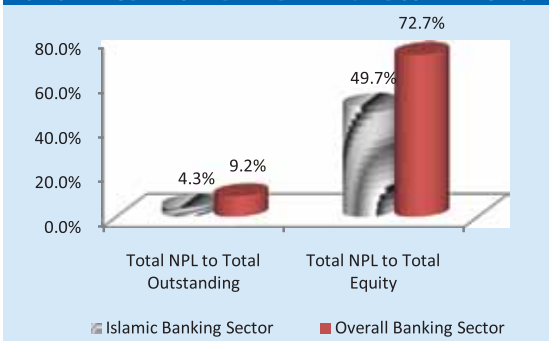
Source: Developments of Islamic Banking Sector in Bangladesh, BB publication (quarterly); and Quarterly Report on Remittance inflow. Computation: FSD, BB.

Besides conventional banks, Islamic banks also play an important role in collecting foreign remittances and disbursing them among its beneficiaries across the country. In CY16, the total inward foreign remittance was BDT 1067.9 billion, of which BDT 369.5 billion was collected and distributed by the Islamic Banking sector. This implies that the Islamic banks accounted for a 34.6 percent share of foreign remittances collected by the entire banking industry.

3.13.7 CLASSIFIED INVESTMENTS OF ISLAMIC BANKS[44]

Islamic banks also showed a better position regarding the classified investments to total investments ratio in the review year 2016. The ratio was 4.3 percent, substantially lower than the industry score of 9.2 percent. However, if only private commercial banks are considered rather than the overall banking industry, the ratio drops to 4.6 percent from 9.2 percent.

CHART 3.60: CLASSIFIED INVESTMENTS (LOANS AND ADVANCES) OF ISLAMIC BANKS AND THE BANKING INDUSTRY IN CY16



Note: Excluding Islamic banking branches/windows of conventional bank
Source: DOS, BB; computation: FSD, BB.

Islamic banks, therefore, had slightly less NPL compared to their closest peer group (PCBs). The classified investment to total equity was 49.7 percent for Islamic banks, as compared with 72.7 percent for the overall banking industry, indicating that Islamic banks were more resilient in case of possible losses from their investments (loans and advances) compared to the overall banking industry.

From the stability point of view, Islamic banks are less vulnerable to risks as they are able to pass the negative shocks on the asset side (Loss in Musharaka a/c) to the investment depositors (Mudaraba a/c arrangement).

Such arrangements proportionately transfer the credit, market, and liquidity risk of their assets to their depositors, and thereby, in principle, discourage the shareholders from taking excessive risks compared to conventional banks. In other words, depositors may provide a degree of market discipline.

However, it is evident that Islamic banks, in practice, do not necessarily pass the risk from its assets to its depositors in stressed scenarios. Instead, Islamic banks smoothly distribute their profits to depositors at benchmark rates and thereby do pass the asset portfolio risk onto the shareholders. Moreover, when investment revenues are substantially higher, Islamic banks usually provide a higher percentage of revenues to depositors as a rate of return in line with market deposit interest rates rather than the full profit due to them. On the other hand, they will do the opposite in years when investment revenues are low by reducing its own management (Mudarib) fee share to increase the share of distributions for the depositors.

3.14 PERFORMANCE OF NEW BANKS

A total of 10 new banks, nine (9) of which were incorporated in 2013 and the last one in 2016, aggregately accounted for 3.6 percent of the banking industry's assets as at end December 2016. The NPL ratio of these banks was 0.96 percent as on the reference date.

All the new banks[45] are categorized as private commercial banks (PCBs) according to their ownership. Out of ten new banks, one is offering Shariah-based banking and others are providing conventional banking services to their customers. Moreover, three of them are sponsored by Non-Resident Bangladeshis (NRBs). The aggregate assets of these banks at end-December 2016 accounted for 3.6 percent of the total banking industry's assets while the same figure was 2.9 percent at the end- December 2015.

The share of loans and advances of the new banks reached at 4.2 percent of the overall industry's loans and advances at end-December 2016, while the share was 3.2 percent at end-December 2015. Loans and advances constituted the largest segment of the assets of these banks, and the proportion was slightly higher than that of the overall banking industry. At end-December 2016,

[44]The loans and advances are termed as investments in Islamic banks.

[45]Banks incorporated in 2013 and 2016 are analyzed as new banks in the system.

loans and advances accounted for 68.7 percent of the total assets of these banks, while their corresponding figure was almost as same as end December 2015 (62.7 percent). The same ratio was 61.4 percent for the overall banking industry.

These new banks were operating with 351 branches including 169 rural branches at end-December 2016 against 268 branches at end-December 2015. In consideration of number of bank branches under operation, new banks accounted for around 3.6 percent (351 out of 9654) of the banking industry at end-December 2016, while the ratio was 2.9 percent (268 out of 9397) at end-December 2015.

The quality of assets of the new banks as at end December 2016 appears to be high as their gross NPL ratio was reasonably low (0.96 percent) compared to the total banking industry's NPL ratio (9.2 Percent). The gross NPLs of the 9 new banks incorporated in 2013 and the banking industry as a whole were 0.24 percent and 8.79 percent respectively as at end December 2015.

All these new banks successfully maintained their required provisions as at end December 2016. The maintained to required provisions ratio of the new banks was greater than 100 percent whereas the same ratio of the industry was 84.9 percent as at end December 2016.

CHART 3.61: ROA AND ROE COMPARISON IN CY16

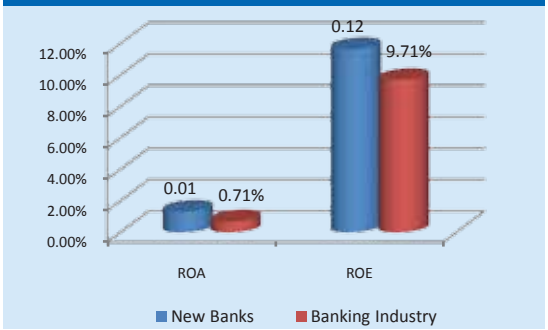
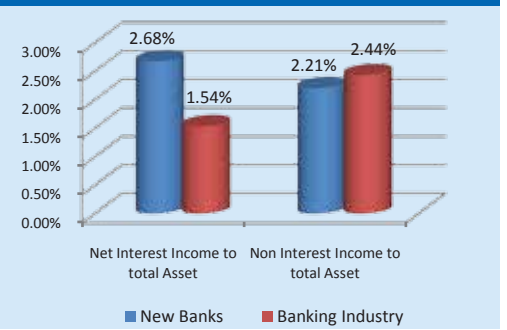


CHART 3.62: COMPARISON BY SOURCES OF INCOME IN CY16



Source: DOS, computation: FSD, BB

The new banks performed with higher profitability in CY16 compared to CY15. In CY16, their net profit increased almost 162.45 percent compared to CY15. Consequently, their ROA in CY16 (1.33 percent) was much higher than that of the banking industry (0.71 percent). Moreover, the new banks' ROE increased from 7.8 percent in CY15 to 11.67 percent in CY16, which was also higher than industry ROE of 9.7 percent.

The capital to risk-weighted assets ratio (CRAR) of these new banks was significantly higher than the industry CRAR as a whole and also higher than that of other categories of banks operating in the industry. CRAR of these banks remained 16.94 percent at end-December 2016 against 19.5 percent at end-December 2015. The CRAR started decreasing from CY14. It was not unexpected because of their gradual move towards the comparable levels of RWAs as prevailing in the industry for the purpose of expanding business. The current level of CRAR of new banks indicates that these banks had higher loss absorption capacity than the overall industry.

CHART 3.63: CRAR OF NEW BANKS

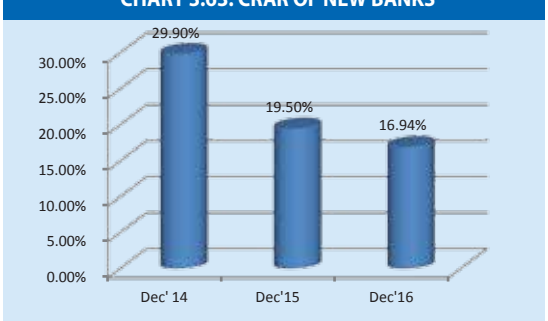
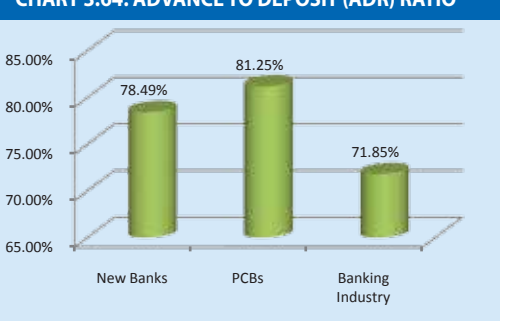


CHART 3.64: ADVANCE TO DEPOSIT (ADR) RATIO



Source: DOS, BB; computation: FSD, BB

Moreover, the new banks had higher liquidity compared to their peer group (PCBs), but somewhat lower compared to the banking industry as a whole at end December 2016 as expressed by their ADR. The ADR of these new banks (78.5 percent) found lower than that of PCBs (81.3 percent) but higher than the overall industry (71.9 percent).

BOX 3.5: COMPOSITE FINANCIAL STABILITY INDEX (CFSI)

Composite financial stability index (CFSI) is a tool to measure the stability of a financial system as well as to monitor any buildup of systemic stress in the system. It takes into account the interconnectedness among different sectors of the economy and thus reflects any stress in the financial sector stemming from other sectors as well. Following the approach of Nayn and Siddiqui (2014)[46], CFSI has been constructed for the financial system of Bangladesh. This Index is a combination of three sub-indices - Banking Soundness Index (BSI), Financial Vulnerability Index (FVI) and Regional Economic Climate Index (RECI). Each sub-index is an aggregation of different indicators representing particular sector(s) of the economy. Eighteen indicators[47] under the three sub-indices have been combined to prepare the CFSI. For the purpose of aggregation and comparison, each indicator is normalized through statistical normalization (z score) and then combined under each sub-index assigning equal weights. Subsequently, CFSI has been prepared by aggregating the sub-indices with weights[48] as follows:

$$CFSI_t = 0.6 \times BSI_t + 0.4 \times (FVI_t + RECI_t)$$

Where,

$BSI_t = \frac{\sum_{i=1}^{7} BS_{it}}{7}$; BS_{it} refers to normalized value of the i^{th} banking soundness (BS) indicator during period *t*;

$FVI_t = \frac{\sum_{j=1}^{9} FV_{jt}}{9}$; FV_{jt} refers to normalized value of the j^{th} financial vulnerability (FV) indicator during period *t*;

$RECI_t = \frac{\sum_{k=1}^{2} RE_{kt}}{2}$; RE_{kt} refers to normalized value of the k^{th} regional economic (RE) indicator during period *t*;

This index is a measure of the volatility of the financial system. Excess volatility in any direction for a prolonged period can be an indication of build-up of systemic risk in the system provided that other relevant information is taken into consideration during the time of analyzing the index.

The CFSI has been calculated using semi-annual data for the period ranging from December 2004 to December 2016. It shows that the financial system of Bangladesh has been mostly stable during this period with minor stresses at some points of time.

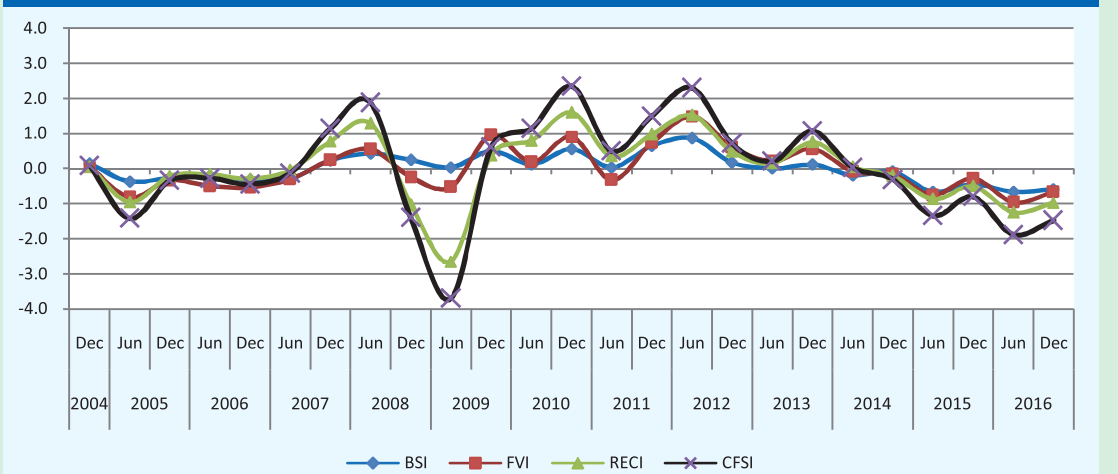
(Continued)

[46]Nayn, M. Z. and M. S. Siddiqui (2014) "Measuring Financial Stability: The Composition of an Aggregate Financial Stability Index for Bangladesh", Bank Parikrama, Vol. XXXIX, Nos. 3 & 4, September & December, pp. 109-134.

[47]See Appendix XLI for the list of indicators.

[48]Net trade, market capitalization and domestic credit of Bangladesh as percentage of GDP have been considered for assigning weights.

Chart B3.5.1: Composite Financial Stability Index (CFSI)



Notes: *Considering risk-based approach, CAR requirement and calculation method have considerably changed twice: Basel I to Basel II in 2010 and to Basel III in 2015; Minimum capital requirement (in amount) for banks increased (BDT 2 billion in 2007 and BDT 4 billion in 2011); From June 2013 base year of CPI changed from 1995-96=100 to 2005-06=100.*

The CFSI captures the deterioration in the current account of Bangladesh during January-June, 2005 followed by a relatively stable financial condition from the end of 2005 till June 2007. Due to persistence of high oil prices in the global market and high inflationary expectation in the country, a moderate level of stress was experienced during July 2007-June 2008. Thereafter, the CFSI reflects the impacts of global financial meltdown up to June 2009 and the historic rise of the country's stock market index from mid-2009 up to December 2010 and subsequent price correction. The liquidity crisis in the financial sector as well as banks' maintenance of higher capital adequacy ratio (CAR) for adoption of Basel II framework in Bangladesh is reflected in the CFSI during July-December 2011. During the first half of 2012, huge current account surplus was recorded. From the mid-2012 to the end of the December 2016, the Bangladesh financial system has been comparatively stable. However, during the first half of the review year (2016), the CFSI went down below the 2015 level due to the deteriorating performance of the banking sector and the capital market. In the second half, the CFSI moved upward as the banking sector performance improved and private sector credit growth picked up to a satisfactory level; performance of capital market also improved in that period. It appears from the movement of the Index is that the financial system of Bangladesh was mostly stable during the year 2016 albeit experienced a minor stress in the first half of the year.

Chapter 4

BANKING SECTOR RISKS

This chapter analyses various risk aspect of the banking sector in Bangladesh. Instead of traditional form of categorization, banks can be re-categorized into five different groups for the purpose of risk analysis. Table 4.1 demonstrates the details of the groups as noted below:

TABLE 4.1: GROUPING OF BANKS FOR THE PURPOSE OF RISK ANALYSIS

(As of end-December 2016)

Bank Group	Description of the group	Number of banks	Share in total banking sector assets
Group 1	Private commercial banks (Long-standing conventional banks)	22	43.4%
Group 2	State-owned and Private commercial banks under special attention[49]	10	30.6%
Group 3	Private commercial banks (Full-fledged Islamic banks)	7	18.4%
Group 4	Foreign commercial banks	9	4.8%
Group 5	Fourth generation[50] private commercial banks	9	2.9%

Source: DOS, BB; computation: FSD, BB.

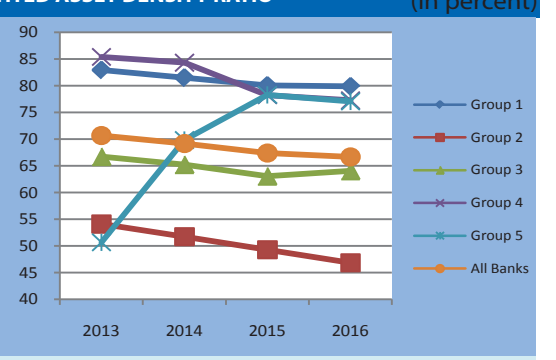
4.1 OVERALL RISK PROFILE OF THE BANKING SECTOR

Table 4.2 shows the risk weighted assets (RWA) density ratio[51], the ratio of RWA to total assets, had been decreasing for all categories of banks except the fourth generation banks (group 5) during the past four years. The fall in the RWA density ratio indicates that the banking assets are less exposed to risks, such as credit, market and operational risk, reflecting banks' prudence in investing their funds in businesses where risk is low. Conversely, the higher level of density ratio of the banks reflects that they are expanding their banking activities towards more risky business. However, in 2016, the growth of RWA-density ratio of the fourth generation banks had been stabilized and decreased slightly.

TABLE 4.2: RISK WEIGHTED ASSET DENSITY RATIO

(in percent)

Bank Group	2013	2014	2015	2016
Group 1	82.0	81.5	80.1	79.9
Group 2	54.1	51.7	49.3	46.9
Group 3	66.7	65.2	63.1	64.1
Group 4	85.4	84.3	78.3	77.3
Group 5	50.7	69.8	78.3	77.1
All Banks	70.7	69.2	67.4	66.7



Source: DOS, BB; computation: FSD, BB.

[49]Banks operating under memorandum of understanding (MOU) or Directives of Bangladesh Bank (DOBB), which requires additional amount of supervision and suffer from various constraints inhibiting their performance, including poor asset quality, capital inadequacy and weak governance.

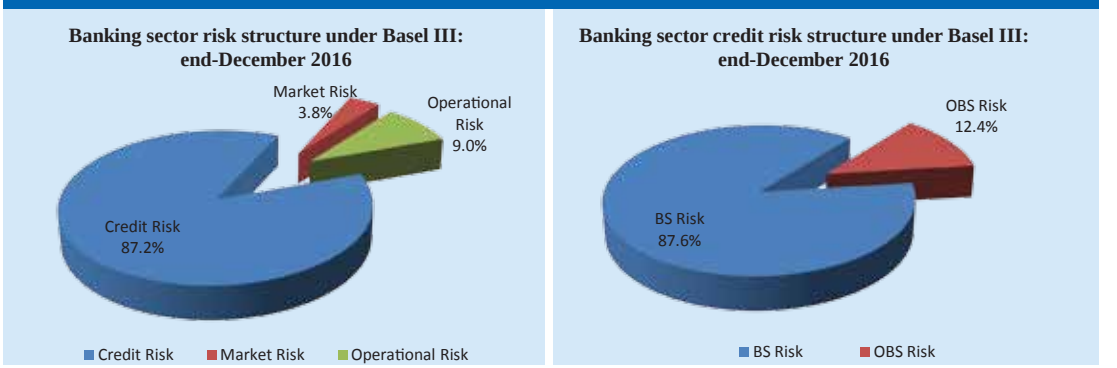
[50]Banks granted license in 2013 onward to operate as scheduled banks in Bangladesh (except one Islamic bank that is included in group 3).

[51]The RWA density ratio is a simple and quick measure of weighted average relative risk of a bank's on- and off-balance sheet exposures. However, there are some criticisms of this ratio for its significant divergences across banks and jurisdictions due to the inconsistency of risk measurement methodologies across jurisdictions. As RWA density ratio, in this case, is calculated for the whole banking system under one jurisdiction, there may be less bias in the result.

4.2 CREDIT RISK[52] STRUCTURE IN BANGLADESH

Chart 4.1 reveals that the share of RWA attributed to credit risk was 87.2 percent of the total RWA of the banking system at the end of December 2016, whereas the RWA associated with market and operational risks were 3.8 and 9.0 percent respectively. The chart also shows that 87.6 percent of the credit risk derived from balance sheet exposures. In 2016, RWA for credit risk as a ratio of total RWA increased by 0.7 percentage points compared to the previous year. While RWA for market risk decreased largely due to decrease in equity price, the operational risk remained unchanged.

CHART 4.1: CREDIT RISK STRUCTURE



Source: DOS, BB; computation: FSD, BB

The capital to risk-weighted asset ratio (CRAR) of the banking system remains almost same (decreased by 4 basis points) as previous year which was 10.8 percent as on 31 December 2016. It seems that the increase of credit risk did not affect much on the CRAR of the banking system in 2016. However, the gross NPL ratio increased to 9.2 percent at end December 2016 from 8.8 percent at end December 2015.

The nominal value of RWA for credit risk was BDT 7754.4 billion (BS and OBS), while the same for market risk and operational risk were BDT 299.7 billion and BDT 696.4 billion respectively.

In CY16, credit risk of the top 5 banks accounted for 23.6 percent of the total credit risk of the financial system, while more than 40 percent of credit risk was held by the top 10 banks (Table 4.3). However, the concentration of credit risk within top 5 and top 10 banks slightly decreased during the period despite increase in credit risk in the banking industry.

TABLE 4.3: CREDIT RISK UNDER BASEL III IN THE BANKING INDUSTRY

(As of end-December 2016)

Banks	Share in industry credit risk	Share in industry overall[53] risk
Top 5	23.6%	20.6%
Top 10	40.9%	35.7%
All banks	100.0%	87.2%

Source: DOS, BB; computation: FSD, BB

The group-wise analysis of credit risk (Table 4.4) shows that group 1 (22 banks), possessing 43.4 percent of total assets, contained more than half of the industry credit risk (52.4 percent), and 45.7 percent of overall industry risk. Group 2 (10 banks), on the other hand, possessed 30.6 percent of the

[52]Credit risk can be defined as the probability of loss (due to non-recovery) emanating from the credit extended, as a result of the non-fulfillment of contractual obligations arising from unwillingness or inability of the counter-party or for any other reason.

[53]Total of credit risk, market risk and operational risk.

assets but contained about one-fifth of the industry credit risk (20.6 percent), and 17.9 percent of overall industry risk. The remaining groups (foreign banks and fourth generation domestic private banks) contained credit risk almost similar to their asset shares of the banking system. Thus, the credit risk in the banking system was, indeed, mostly concentrated in the conventional private commercial banks, state-owned banks and commercial banks operating under special attention.

TABLE 4.4: GROUP-WISE DISSECTION OF CREDIT RISK IN THE BANKING SYSTEM

(As of end-December 2016)

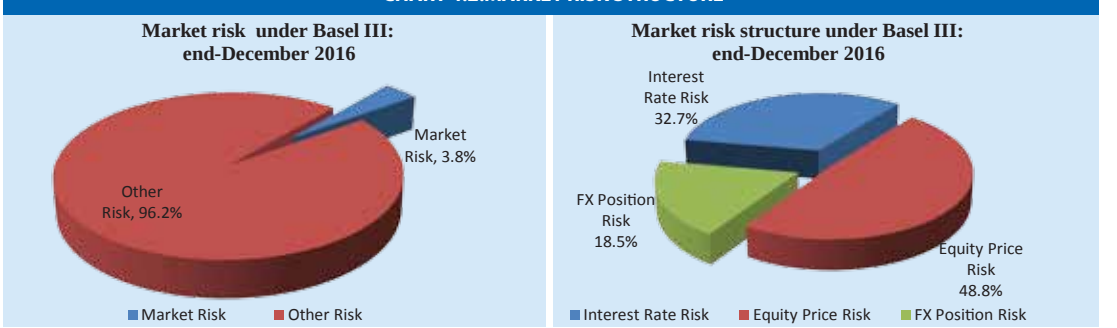
Bank Group	Share in industry credit risk	Share in overall industry risk
Group 1	52.4%	45.7%
Group 2	20.6%	17.9%
Group 3	18.2%	15.9%
Group 4	5.3%	4.7%
Group 5	3.5%	3.0%
Total	100.0%	87.2%

Source: DOS, BB; computation: FSD, BB.

4.3 MARKET RISK[54] STRUCTURE UNDER BASEL III

Under Basel III, the sources of market risk are mainly attributed to the risks pertaining to interest rate related instruments and equities in the trading book and, also to foreign currencies and guarantees in FX. Chart 4.2 shows that market risk decreased from 4.5 percent in December 2015 to 3.8 percent in December 2016. Equity price risk constituted the highest stake (48.8 percent) of the market risk in 2016 followed by interest rate risk (32.7 percent) and foreign exchange risk (18.5 percent).

CHART 4.2:MARKET RISK STRUCTURE



Source: DOS, BB; computation: FSD, BB.

Table 4.5 demonstrates group-wise analysis of market risk in the banking system. The table reveals that group 1 (22 banks) and group 2 (10 banks) were combinedly exposed to more than 90 percent of total interest rate risk in the segment of market risk in 2016. Besides, total equity price risk of the both groups was 86.4 percent. These statistics reveal that local private commercial banks and state owned banks possessed in most of the interest-rate related instruments and accounted for capital market investment of the banking system. Moreover, these banks contained about 62 percent of the exchange rate risks of the system. The group 3 banks (Islamic banks) possessed 27 percent of the exchange rate risks in 2016, which is about 5 percentage points more than the previous year. The Islamic banks were increasing their proportion of risk in FX market. Foreign banks and fourth generation commercial banks were less exposed to market risk in the system.

[54]Market risk can be defined as the risk of loss in on- and off-balance sheet positions arising from movements in market prices.

TABLE 4.5: GROUP WISE DISSECTION OF MARKET RISK IN THE BANKING SYSTEM (As of end-December 2016)			
Bank Group	**Share in industry interest rate risk**	**Share in industry equity price risk**	**Share in industry exchange rate risk**
Group 1	32.8%	53.1%	36.6%
Group 2	57.4%	33.3%	25.7%
Group 3	0.0%	12.2%	27.0%
Group 4	2.4%	0.0%	9.0%
Group 5	7.4%	1.4%	1.7%
Total	100.0%	100.0%	100.0%

Source: DOS, BB; computation: FSD, BB.

4.3.1 INTEREST RATE RISK (IRR)[55]

The share of RWA assigned to interest rate risk (IRR) was 1.3 percent at the end-December 2016, which was 1.5 percent at the end-December 2015. However, IRR contributed 32.7 percent of the market RWA in 2016, which was close to the previous year. Banks' capital charge for interest rate risk was BDT 9.8 billion in 2016, which was BDT 10.3 billion in 2015. Table 4.6 reveals that the top 5 banks contained about 67 percent of industry interest rate risk. Three SCBs and two PCBs were ranked in the top 5 banks in terms of capital charges for IRR in the banking system. In 2016, top 5 banks experienced decrease in IRR while top 10 banks exhibited increase in IRR.

TABLE 4.6: INTEREST RATE RISK IN THE BANKING SYSTEM (As of end-December 2016)			
Banks	**Interest rate risk**	**Share in market risk**	**Share in overall risk**
Top 5	67.0%	21.9%	0.9%
Top 10	83.7%	27.4%	1.1%
All banks	100.0%	100.0%	100.0%

Source: DOS, BB; computation: FSD, BB.

4.3.2 EXCHANGE RATE RISK[56]

The share of RWA assigned to exchange rate risk was 0.7 percent of total RWA in the banking system as at end-December 2016, whereas the exchange rate risk was 18.5 percent of the market risk. The banks' capital charge for exchange rate risk declined to BDT 5.5 billion as at end-December 2016 from BDT 5.8 billion as at end-December 2015. Table 4.7 shows that top 10 banks were exposed to 64.6 percent of the industry's exchange rate risk while the top 5 banks exposed to 48.4 percent. One SCB and four PCBs were ranked in the top 5 positions in regard to exchange rate risk.

TABLE 4.7: EXCHANGE RATE RISK IN THE BANKING SYSTEM (As of end-December 2016)			
Banks	**Exchange rate risk**	**Share in market risk**	**Share in overall risk**
Top 5	48.4%	9.0%	0.4%
Top 10	64.6%	11.9%	0.5%
All banks	100.0%	100.0%	100.0%

Source: DOS, BB; computation: FSD, BB.

[55]Interest rate risk can be defined as potential risk to interest sensitive assets and liabilities of a bank's on- and off-balance sheet items arising out of adverse or volatile movements in market interest rate.

[56]Exchange rate risk can be defined as the variability of a firm's earnings or economic value due to changes in the rate of exchange. In other words, this is the risk of possible direct loss (as a result of an unhedged exposure) or indirect loss in the firm's cash flows, assets and liabilities, net profit and, in turn, its estimated market value of equity occured due to exchange rate movement.

4.3.3 EQUITY PRICE RISK[57]

As at end-December 2016, the share of RWA assigned to equity price risk was 1.9 percent of the total RWA in the banking system, while the equity price risk was 48.8 percent of total market risk. The banks' capital charge for equity price risk was BDT 14.6 billion as at end- December 2016, which was BDT 0.6 billion lower compared to the previous year end. Table 4.8 depicts that the top 10 banks contained 59.5 percent of the industry's equity price risk, which was 67.3 percent at end-December 2015. Three SCBs and two PCBs occupied the top 5 positions from the perspective of equity price risk.

TABLE 4.8: EQUITY PRICE RISK IN THE BANKING SYSTEM
(As of end-December 2016)

Banks	Equity price risk	Share in market risk	Share in overall risk
Top 5	38.1%	18.6%	0.7%
Top 10	59.5%	29.0%	1.1%
All banks	100.0%	100.0%	100.0%

Source: DOS, BB; computation: FSD, BB.

4.4 OPERATIONAL RISK[58]

Banking sector data at end-December 2016 indicates that the share of RWA assigned to operational risk was 8.9 percent of total RWA of overall banking system, which was at the same level of end-December 2015. In 2016, the CRAR of the overall banking system was 10.8 percent, same as previous year; the banks were aggregately charged BDT 69.7 billion as capital for operational risk at end-December 2016. Table 4.9 shows that the top 10 banks, sharing 43.8 percent of the system assets, were exposed to 44.4 percent of the industry operational risk. The remaining 47 banks having 56.2 percent of the system assets contained the rest of the share of the operational risk. The top 10 banks shared almost the same level of total operational risk for the past three years, i.e.; 4.1 percent in both 2014 and 2015, and 4 percent in 2016.

TABLE 4.9: OPERATIONAL RISK UNDER BASEL III IN THE BANKING INDUSTRY
(As of end-December 2016)

Banks	Share in industry operational Risk	Share in industry overall risk
Top 5	27.5%	2.5%
Top 10	44.4%	4.0%
All banks	100.0%	9.0%

Source: DOS, BB; computation: FSD, BB

Group-wise analysis of operational risk (Table 4.10) demonstrates that half of the operational risk was confined within the banks under group 1. However, the group's share in the overall industry risk was 4.6 percent in 2016.

[57]Equity price risk is the possible risk of reduction in profitability or capital caused by adverse movements in the values of equity securities, owned by the banks, whether traded or non-traded, or taken as collateral securities for credits extended by the bank. Equity risk, at its most basic and fundamental level, is the financial risk involved in holding equities in a particular investment.

[58]Operational risk can be defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputation risk. Under Basel III, two methods - Basic Indicator Approach (BIA) and The Standardized Approach (TSA) - have been recommended for calculating operational risk capital charges in Bangladesh. Banks in Bangladesh are now implementing BIA, no bank has adopted TSA so far. They are allowed to adopt TSA subject to attaining the qualifying criteria stipulated under the Basel III framework.

TABLE 4.10: GROUP WISE DISSECTION OF OPERATIONAL RISK IN THE BANKING SYSTEM (As of end-December 2016)		
Bank Group	**Share in industry operational risk**	**Share in overall industry risk**
Group 1	50.9%	4.6%
Group 2	22.2%	2.0%
Group 3	14.9%	1.3%
Group 4	9.7%	0.9%
Group 5	2.3%	0.2%
Total	100.0%	9.0%

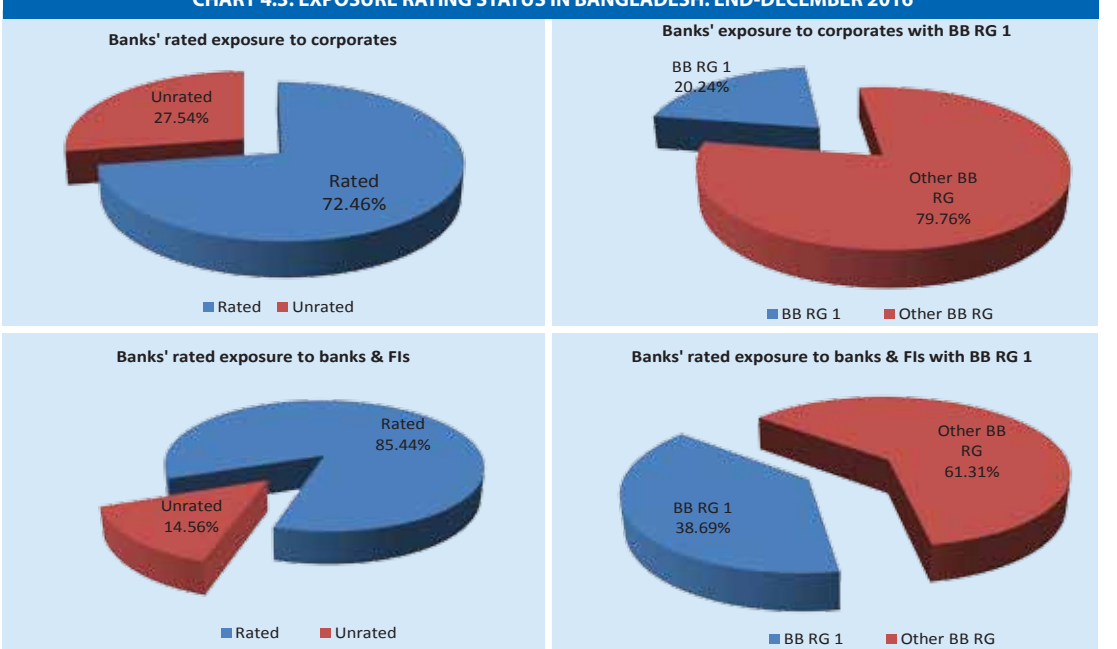
Source: DOS, BB; computation: FSD, BB.

4.5 RISK MITIGANTS

Credit ratings are viewed as one of the inputs into the risk assessment process, combined with banks' own credit analysis, may assist banks to mitigate their credit risk effectively. Further increase in banks' exposures that were rated and attained the highest credit rating (BB rating grade 1) in CY16 but not in CY15 is an encouraging sign for the banking system from the viewpoint of credit risk mitigation.

Basel III allows banks to choose one of the two widely used approaches for calculating their capital requirements in relation to credit risk: the standardized approach and the internal rating based (IRB) approach. Banks in Bangladesh have adopted standardized approach. This approach requires credit ratings[59] of banks' corporate clients or entities by external credit assessment institutions (ECAIs) recommended by Bangladesh Bank (BB). As of end-December 2016, 08 credit rating companies got license from Bangladesh Securities and Exchange Commission (BSEC), also accorded the status of ECAIs by BB. Banks are also allowed to use the ratings (if available) of the three international Rating Agencies; Fitch, Moody's, Standard & Poor's for rating their exposures abroad.

CHART 4.3: EXPOSURE RATING STATUS IN BANGLADESH: END-DECEMBER 2016



Source: DOS, BB; computation: FSD, BB.

[59]Credit ratings are opinions about the ability and willingness of counterparty or an issuer to meet its financial obligations in accordance with the terms of relevant obligations.

Banks in Bangladesh exposed to non-financial corporations (NFC) as well as other banks and financial institutions (FIs). Under the standardized approach, these exposures are also required to be rated by ECAIs to determine the capital requirements against credit risks. The better the ratings of the exposures, the less vulnerable the banks are to default risk.

As at end-December 2016, corporate exposure of the banking system was BDT 4107.07 billion, out of which 72.5 percent was rated and remaining 27.5 percent was not rated. Among the rated exposures, a total of 20.2 percent carried the best rating[60], BB rating grade 1 (BB RG 1). The best rated exposures in 2016 is higher than the previous year. In 2015, 66.5 percent exposures were rated, of which 19.0 percent of them carried BB RG1. The banking sector exposures to banks and FIs in CY16 stood at BDT 766.5 billion of which 85.4 percent are rated exposures. In 2015, the rated exposures were 84.8 percent. Out of the rated exposures, in 2016, 38.7 percent received BB RG1, which was 36.1 percent in 2015. Thus, banks' rated exposure to banks and FIs including BB RG1 increased in CY16 which is an indication of lower credit risk as well as systemic risk.

In the context of Bangladesh, credit rating is an auxiliary tool for credit information which may assist banks in their own credit analysis. For mitigating credit risk, banks depend on collateral against the debt where there is a possibility of increasing residual risk e.g. legal risk, operational risk, liquidity risk and most importantly market risk. Therefore, utilizing the credit rating of the counterparty for mitigating the credit risk would provide banks some advantage of moving away from collateral based operation if implemented with due diligence.

4.6 CREDIT RATING TRANSITION MATRIX

A stable credit rating along with very little downward migration of ratings was observed during 2015-16. This indicates the resilience of the financial system from the standpoint of corporate solvency.

The credit rating transition matrix in Table 4.11 shows the transition or migration of NFC entities from one rating category to another over two consecutive years (2015 and 2016). In this framework, excessive migration, especially excessive downgrading of most entities in the matrix indicates a potential stability threat for the economy.

TABLE 4.11: ONE YEAR TRANSITION MATRIX (2015-16)[61]

From 2015	To 2016 rating*					
Rating*	1	2	3	4	5	6
1	50 (100.0%)	-	-	-	-	-
2	4 (4.0%)	93 (92.0%)	4 (4.0%)	-	-	-
3	-	5 (2.7%)	175 (95.6%)	3 (1.6%)	-	-
4	-	-	9 (17.3%)	43 (82.7%)	-	-
5	-	-	-	1 (33.3%)	1 (33.3%)	1 (33.3%)
6	-	-	-	-	-	-

*Source: BRPD, BB; computation: FSD, BB. *Rating grades are BB equivalent.*

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

[61]The analysis considers the entity-wise long-term rating under surveillance category. The 4th quarter ratings of 389 entities of Argus, CRAB, CRISL, ACRL and NCRL in 2016 and 2015 have been compared.

The transition matrix of 2015-16 shows a very stable credit rating scenario where around 98.2 percent (382 out of 389) were able to maintain either their previous rating or upgrade to higher rating categories. On the other hand, the magnitude of downward migration was very low during 2015-16. It was 1.8 percent during 2015-16 compared to 0.9 percent during 2014-15. At the same time, 5.1 percent of the entities migrated to higher rating categories during 2015-16 compared to 6.9 percent during 2014-15. It is a good sign that the number of upgraded entities was much higher than that of downgraded entities during 2015-16. About 85.9 percent of the total entities secured a rating of 3 or higher in 2016 indicating a low to moderate level of credit risk in the financial system. It is noteworthy that the number of rated corporate entities analyzed here increased from 320 in 2014-15 to 389 in 2015-16.

TABLE 4.12: ONE YEAR TRANSITION MATRIX (2014-15)[62]

From 2014	To 2015 rating*					
Rating*	1	2	3	4	5	6
1	56 (100.0%)	-	-	-	-	-
2	4 (4.1%)	92 (94.9%)	1 (1.0%)	-	-	-
3	-	15 (10.5%)	127 (88.8%)	1 (0.7%)	-	-
4	-	-	3 (13.6%)	18 (81.8%)	1 (4.6%)	-
5	-	-	-	-	2 (100.0%)	-
6	-	-	-	-	-	-

*Source: BRPD, BB; computation: FSD, BB. *Rating grades are BB equivalent.*

Table 4.12 reveals that a stable credit rating transition matrix for 2015-16 along with very little downward migration, which indicates a stable and resilient financial system. No immediate threat of credit risk shock in the financial sector is expected from the credit exposures to the non-financial corporate entities. It also shows no major instability in the economy, which is evident from a less volatile macroeconomic outlook in 2016[63].

[62]The analysis considers the entity-wise long-term rating under surveillance category. The 4th quarter ratings of 320 entities of Argus, CRAB, CRISL and ECRL in 2015 and 2014 have been compared.

[63]The stability of ratings, indeed, does not necessarily mean that they are accurate. The reliability of such ratings lies with the reliability and accuracy of the assessment process employed by credit rating companies, which also in turn leads to the reliability of this analysis. However, this analysis is subject to survivorship bias. Only the entities with stable performance might wish to be rated subsequently, whereas many entities with poor performance might decide not to be rated again, and therefore, are not covered under the above transition matrix.

Chapter 5

STRESS TESTING

Stress tests are conducted by Bangladesh Bank (BB) to assess the resilience of all scheduled banks and financial institutions to different extremes but plausible shock scenarios based on data as of end-December 2016. The results of stress tests are discussed below in brevity.

5.1 BANKING SECTOR RESILIENCE

A number of single factor sensitivity stress tests, covering credit risk, market risk and liquidity risk, are conducted to assess the resilience of the banks. Under each scenario, the after-shock Capital to Risk-weighted Assets Ratio (CRAR)[64] is compared with the minimum regulatory requirement of 10 percent[65]. Particular attention is paid to credit risk, which is the major risk in the banking sector.

At present, Bangladesh banking sector consists of 57 scheduled banks including Shimanto Bank Limited, which has resumed its commercial operation on 09 October 2016. Banking sector data reveals that, out of 56 scheduled banks (excluding Shimanto Bank)[66], 49 banks have been able to meet the minimum regulatory limit of CRAR while remaining 07 banks had a Capital to Risk-weighted Assets Ratio (CRAR) of less than the minimum regulatory requirement as of end-December 2016. It is mentionable that, out of 07 under-capitalized banks, 04 had negative CRAR due to a cumulative loss and provision shortfall.

5.1.1 CREDIT RISK

A number of tests for credit risk have been conducted to assess the impact of different shocks on banks' capital. Generally, the ratio of gross NPL[67] to total gross loans is taken as the main measure of credit risk from the standpoint that credit risk is associated with the quality of the sector's loan portfolio.

TABLE 5.1: STRESS TESTS FOR CREDIT RISK: CRAR AND NPL RATIO AFTER SHOCKS

(Percent)

Scenarios	Required Minimum CRAR	Maintained CRAR	Gross NPL Ratio
Banking System	10.00	10.80	9.23
Stress Scenarios[68]:			
	Required Minimum CRAR	**CRAR after shock**	**Gross NPL Ratio**
Shock-1: NPL increase by 3%	10.00	9.94	9.50
Shock-2: NPL increase by 9%		7.75	10.06
Shock-3: NPL increase by 15%		4.15	10.61

Source: FSD,BB

[64] CRAR-Capital to Risk-weighted Assets Ratio.

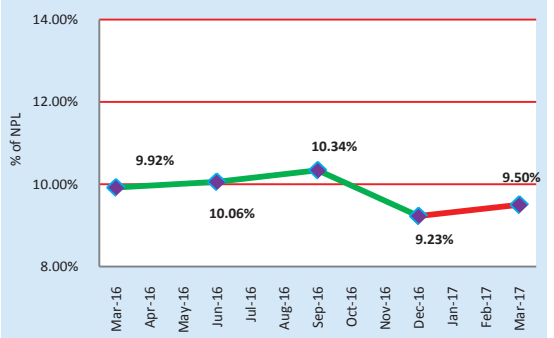
[65] The results are based on the unaudited data for the calendar year ended at December 2016.

[66] Shimanto Bank Ltd. has not yet commenced submitting stress testing report.

[67] NPL (Non-performing loan) means aggregate of loans in the substandard, doubtful, or bad/loss category.

[68] Shock-1, Shock-2, and Shock-3 stand for minor, moderate and major shocks respectively.

CHART 5.1: PROBABLE NPL RATIO AFTER MINOR SHOCK



Source: FSD,BB

In chart 5.1, historical gross NPL ratios of 4 quarters of Calendar Year 2016 (CY16) are illustrated with a green solid line and the dotted red line shows the stressed NPL ratio. Under the minor shock situation, the banking sector's gross NPL ratio is likely to rise to 9.50 percent from the current level of 9.23 percent. Consequently, the banking sector CRAR would have declined to 9.94 percent.

The results also reveal that under stress scenario, 5 out of 49 banks might become undercapitalized; the CRAR of 17 banks could have decreased by 1.0 percentage point or more.

TABLE 5.2: STRESS TESTS FOR CREDIT RISK: DEFAULT BY LARGEST BORROWERS

(Percent)

Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	10.80
Stress Scenarios	**After-Shock CRAR**	
Shock-1: 3 largest borrowers	9.05	
Shock-2: 7 largest borrowers	7.53	
Shock-3: 10 largest borrowers	6.69	

Source: FSD,BB

The ***second test*** has been conducted on the credit concentration risk of banks to measure the effect of default by top borrowers of each bank. Under the assumed scenarios of bank-wise default of the three largest individual/group borrowers, the system would not be able to withstand this shock. At the individual bank level, 23 out of 49 banks are likely to become undercapitalized. The CRAR for 24 of the remaining banks may also decrease by 1.0 percentage point or more.

TABLE 5.3: STRESS TESTS FOR CREDIT RISK: INCREASE IN NPLs IN PARTICULAR SECTOR

(Percent)

Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	10.80
		After-Shock CRAR
Shock-1: 3% of performing loans directly downgraded to bad/loss		10.76
Shock-2: 9% of performing loans directly downgraded to bad/loss		10.66
Shock-3: 15% of performing loans directly downgraded to bad/loss		10.57

Source: FSD,BB

In the ***third test,*** shock has been applied to unclassified loans of selected business sectors such as readymade garments (RMG), textiles, ship building, ship breaking, real estate (residential and commercial), construction, power and gas, transport, storage and communication, capital market, consumer credit, etc based on data at end-December 2016. The results reveal that although the RMG sector/has the highest exposure (8.81 percent of the total loans), risk potential from this sector would be minimal. If an additional 3 percent of this sector's loans become non-performing

(bad/loss), the banking sector's CRAR is likely to decrease to 10.76 percent, but would still be above the minimum regulatory requirement. Therefore, sectoral concentrations of loans, under a minor shock, would have only a trivial impact on banking sector's aggregate capital.

TABLE 5.4: STRESS TESTS FOR CREDIT RISK: DECREASE IN FSV OF THE COLLATERAL (Percent)

Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	10.80
		After-Shock CRAR
Shock-1: 10% decline in the forced sale value of mortgaged collateral		10.32
Shock-2: 20% decline in the forced sale value of mortgaged collateral		9.83
Shock-3: 40% decline in the forced sale value of mortgaged collateral		8.85

Source: FSD,BB

The ***fourth test*** deals with the fall in the forced sale value (FSV) of mortgaged collateral. Shock has been applied on the FSV of mortgaged collateral assuming its value would be declined by 10, 20 and 40 percent under different stress scenarios. The result, due to these shocks, reveals that 2 out of 49 banks are likely to become undercapitalized.

TABLE 5.5: STRESS TESTS FOR CREDIT RISK: NEGATIVE SHIFT IN NPL CATEGORIES (Percent)

Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	10.80
		After-Shock CRAR
Shock-1: 5% negative shift in the NPLs categories		10.20
Shock-2: 10% negative shift in the NPLs categories		8.14
Shock-3: 15% negative shift in the NPLs categories		7.09

Source: FSD,BB

The ***fifth test*** assumes negative shifts in the existing NPL categories, due to some adverse events for the banks, which result in more provision requirements. The uniform shocks are 5, 10 and 15 percent downward shift in the NPL categories (amount of loan shift from one category to another inferior category). 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 of the first level of shock reveals that 2 out of 49 banks are likely to become undercapitalized. The CRAR for 2 banks would have also decreased by 1.0 percentage point or more.

CHART 5.2: STRESS TESTS: MINOR SHOCK ON DIFFERENT CREDIT RISK FACTORS

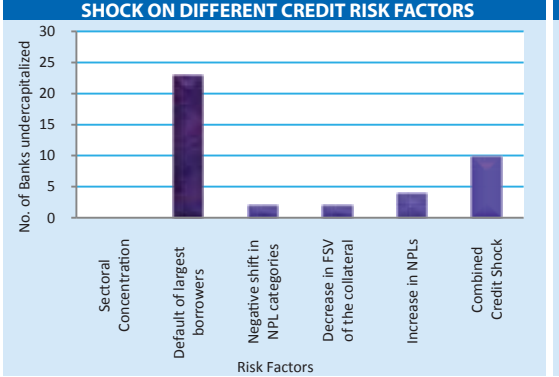
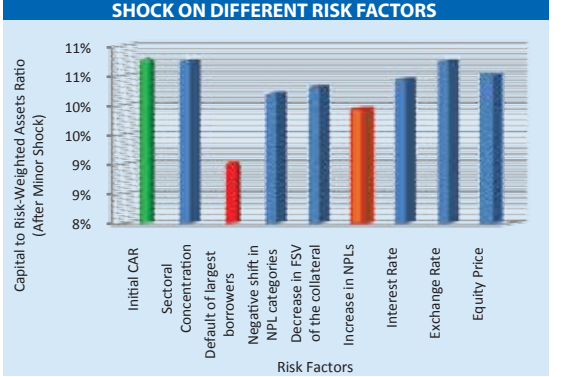


CHART 5.3: STRESS TESTS: MINOR SHOCK ON DIFFERENT RISK FACTORS



Source: FSD,BB

The results suggest that credit risk is the most dominant one in terms of its impact on CRAR. Based on the data as of end-December 2016, the sensitivity analysis on the banking sectors' credit portfolio reveals that the banking sector is relatively less resilient when different types of credit shocks are applied. Out of 49 banks, due to default of the largest borrowers, 23 banks would become undercapitalized. Due to an increase in NPL, 5 banks would fall short of minimum capital requirements, and due to a combined credit shock, 10 banks would become undercapitalized. In brief, default of the largest borrowers is likely to have the highest impact on the banks' soundness.

5.1.2 LIQUIDITY RISK

The liquidity stress test considers excessive withdrawal of demand and time deposits both in local and foreign currency[69]. A bank is considered to be well-liquid if it can survive (after maintaining SLR[70]) up to 5 consecutive days under a stressed situation. Standard shocks are 2, 4 and 6 percent withdrawal of deposit, in excess of bank's normal withdrawal[71]. However, withdrawal is to be adjusted with available liquid assets (excluding SLR).

TABLE 5.6: STRESS TESTS: LIQUIDITY RISK

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		1	1	1
Day:3		1	1	1
Day:4		1	1	1
Day:5		1	1	1

Source: FSD,BB

The results of liquidity shocks reveal that the individual banks and the banking system, as a whole, would likely to remain resilient against specified liquidity stress scenarios.

5.1.3 MARKET RISK

The banking industry is found to be fairly resilient in the face of various market risk shocks[72]. The CRAR of none of the banks would be impacted much under the exchange rate shock. However, 5 and 3 banks are likely to become undercapitalized due to interest rate shock and equity price shock respectively.

TABLE 5.7: STRESS TESTS: INTEREST RATE RISK

(Percent)

Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	10.80
Stress Scenarios		**After-Shock CRAR**
Shock-1: 1% increase in interest rate		10.45
Shock-2: 2% increase in interest rate		10.10
Shock-3: 3% increase in interest rate		9.75

Source: FSD,BB

[69] A liquidity stress test in the context of banks in Bangladesh shows how many days a bank and the banking sector would be able to survive a liquidity drain without resorting to liquidity from outside (other banks, financial institutions or central bank).

[70] SLR= Statutory Liquidity Requirement.

[71] Withdrawal means only deposit outflow.

[72] Market risk shocks: Interest rate, exchange rate and equity price movements.

TABLE 5.8: STRESS TESTS: EXCHANGE RATE RISK (Percent)		
Before Stress Scenario	**Required Minimum CRAR**	**Maintained CRAR**
Banking System	10.00	10.80
Stress Scenarios		**After-Shock CRAR**
Shock-1: Currency appreciation/depreciation by 5%		10.76
Shock-2: Currency appreciation/depreciation by 10%		10.71
Shock-3: Currency appreciation/depreciation by 15%		10.66

Source: FSD,BB

TABLE 5.9: STRESS TESTS: EQUITY PRICE RISK (Percent)		
Before Stress Scenario	**Required Minimum CRAR**	**Maintained CRAR**
Banking System	10.00	10.80
Stress Scenarios		**After-Shock CRAR**
Shock-1: Fall in the equity prices by 10%		10.52
Shock-2: Fall in the equity prices by 20%		10.24
Shock-3: Fall in the equity prices by 40%		9.68

Source: FSD,BB

The results of the stress tests demonstrate that most of the banks have been able to maintain a sufficient capital buffer that enables them to absorb adverse shocks. The liquidity stress test also reveals banks' resilience to liquidity shocks. However, among different specified shocks, the default of the top large loan borrowers and increase in NPLs would have the most adverse impact on the banking sector CRAR.

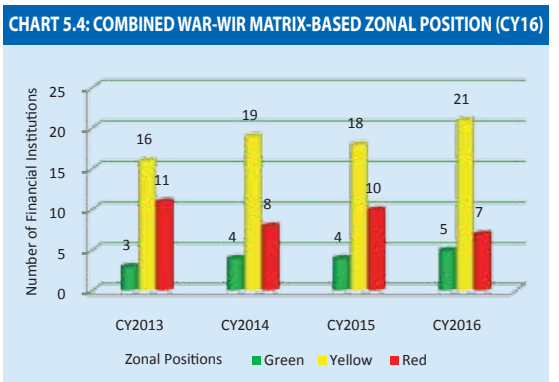
5.2 RESILIENCE OF THE FINANCIAL INSTITUTIONS

The financial institutions (FIs) conduct stress test to assess their resilience to different shock events. The Weighted Average Resilience (WAR) of an FI is calculated based on the weights of 10.0 percent for interest rate, 60.0 percent for credit, 10.0 percent for equity price and 20.0 percent for liquidity at three levels of shock scenarios.

The NPL to loan ratio of an FI is denoted as the Infection Ratio. An Infection Ratio, which can completely erode the regulatory capital of the FI to zero, is called the Critical Infection Ratio (CIR). Insolvency Ratio (IR) implies the percentage; an FI is, towards insolvency. For stress testing, minor, moderate and major level of shocks are applied giving weights of 50.0 percent, 30.0 percent and 20.0 percent respectively to derive the Weighted Insolvency Ratio (WIR).

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

CHART 5.4: COMBINED WAR-WIR MATRIX-BASED ZONAL POSITION (CY16)



Source: DFIM,BB

Stress test results, based on end-December 2016 data, reveal that out of 33 FIs, 5 are positioned in green and 21 in yellow zone. Therefore, 24 FIs would have performed as resilient institutions during October-December 2016 quarter. On the other hand, 7 FIs are positioned in red zone. Overall, a majority of the FIs would remain resilient in the face of different shock scenarios.

The above analyses concluded that banking system (including FIs) stability would be resilience to different shock simulations. However, the existence of few banks with double digit NPL ratio has been a risk to the financial stability. Therefore, provision requirements might be stiffen to mitigate the potential emerging risks. Besides, if there is a potential risk escalation in any specific sector's credit, sector-specific provision requirements can be implemented to shield the risk in that specific sector. Moreover, the guidelines on large exposures would be helpful in reducing risks on banks' exposures to large corporate or group. Monitoring of financial fragilities is essential to issue policies which could prevent or mitigate systemic risk.

Chapter 6

FINANCIAL INSTITUTIONS

6.1 INTRODUCTION

Financial institutions (FIs) constitute a growing segment of the financial system in Bangladesh. Along with the banking sector they contribute to broadening our financial system by reaching the segments which are often not targeted by conventional banking. FIs provide multiple alternatives to transform economy's savings into capital investment and play active role in manufacturing and service industries, trade, housing, transport, information and communication technology, and capital markets.

As of end-December 2016, 33 FIs are operating their business across the country; 3 of them are government-owned, 20 privately-owned local companies, and the remaining are established under joint venture with foreign participation. FIs are operating their business with 225 branches throughout the country.

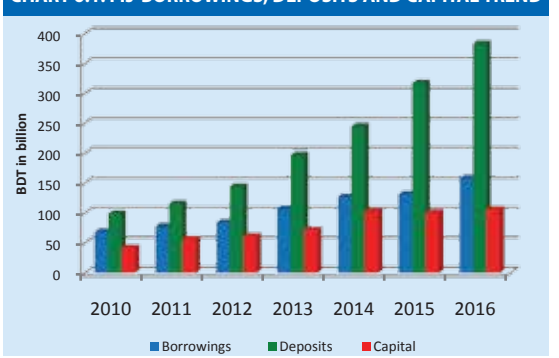
6.2 PERFORMANCE OF FINANCIAL INSTITUTIONS

Performance of FIs is mainly measured by their funding sources, deposit safety net, asset composition, asset quality and profitability.

6.2.1 FUNDING SOURCES

FIs collect funds from a wide range of sources including loans from banks, financial institutions, insurance companies and international agencies as well as deposits from institutions and public. Lines of credit from banks and deposits from the public constitute the major sources of total funds for FIs. FIs are allowed to mobilize term deposits only, with tenor not less than three months. Other than those, the major funding sources are capital, call money, bonds and securitization.

CHART 6.1: FIs' BORROWINGS, DEPOSITS AND CAPITAL TREND



Source: DFIM,BB

Considering composition of fund, it appears that deposits, borrowings and capital respectively constituted 59.1, 24.4 and 16.5 percent of total funds as of end-December 2016.

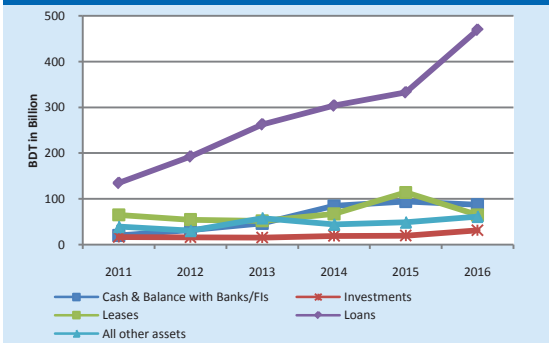
It is noteworthy that, in Calendar Year 2016 (CY16), the borrowings, deposits and capital of FIs increased by 19.8, 20.6 and 5.5 percent respectively compared to those of the previous year.

6.2.2 DEPOSIT SAFETY NET

At present, there is no deposit insurance coverage for the depositors of FIs. However, the proposal for bringing the FIs' depositors under insurance coverage is under process of approval with the Ministry of Finance.

6.2.3 ASSETS COMPOSITION

CHART 6.2: FIs' FINANCING TREND



Source: DFIM,BB

In CY16, total assets of FIs increased by 17.1 percent, compared to that of CY15. The major components of asset were loans, and cash and balances with banks/FIs which were 65.6 percent and 12.3 percent of total assets respectively. It was followed by other components such as leases, investments, and all other assets (including fixed and non-financial assets) with shares of 9.1, 4.4 and 8.6 percent of total assets respectively.

BOX 6.1: FIs' SECTOR-WISE LOANS AND LEASES AS OF END-DECEMBER 2016

Sl.	Major Sectors	Amount (in billion BDT)	Percent	HHI*
1	**Trade and Commerce**	91.3	17.0	289
2	**Industry**			
	a) Garments and Knitwear	24.1	5.0	25
	b) Textile	26.1	5.0	25
	c) Pharmaceuticals & Chemicals	12.7	2.0	4
	d) Iron, Steel and Engineering	28.9	5.0	25
	e) Transport and Aviation	22.5	4.0	16
	f) Food Production and Processing Industry	25.8	5.0	25
	g) Power, Gas, Water and Sanitary Service	50.7	10.0	100
	h) Telecommunication & IT	10.6	2.0	4
	i) Other Industrial Sectors (minor share)	39.9	8.0	64
3	**Agriculture**	11.0	2.0	4
4	**Housing**	89.6	17.0	289
5	**Others**			
	a) Merchant Banking	23.3	4.0	16
	b) Margin Loan	12.7	2.0	4
	c) Others	64.2	12.0	144
	Total	533.3	100.0	1,034

** HHI = Herfindahl–Hirschman Index*
Source: DFIM, BB

The calculated Herfindahl-Hirschman Index (HHI) indicates that FIs' loans and leases were moderately concentrated[73] during CY16. Both housing sector and trade and commerce sector accounted for 17 percent of total loans and leases on an individual basis. The major portion of loans and leases was distributed in 9 sub-sectors of industrial sector with highest allocation for Power, Gas, Water and Sanitary Service.

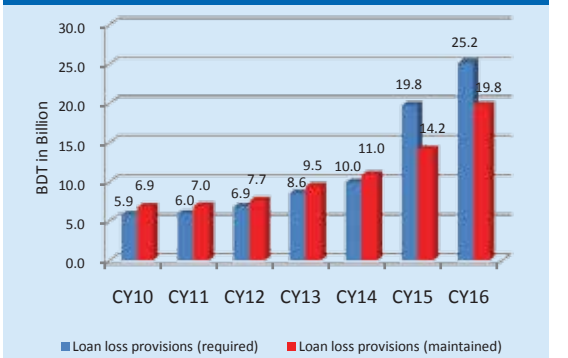
[73] HHI lying between 1000-1800 points indicates moderate concentration.

6.2.4 ASSET QUALITY

FIs' asset quality improved in CY16 compared to that of CY15. The ratio of non-performing loans and leases to total loans and leases stood at 7.3 percent in CY16, 1.6 percentage points lower than the level recorded in CY15.

CHART 6.3: FIs' CLASSIFIED LOANS AND LEASES

CHART 6.4: FIs' LOAN LOSS PROVISIONING



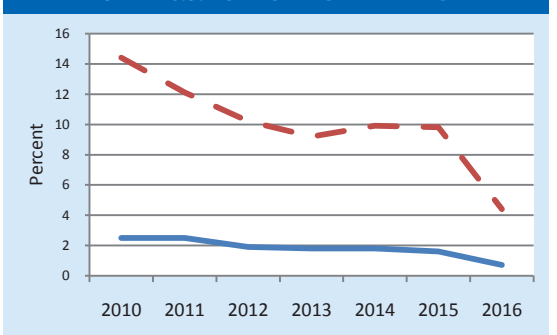
Source: DFIM, BB

During CY16, loan loss provisions amounting to BDT 19.8 billion was maintained by FIs, against a requirement of BDT 25.2 billion, representing a coverage ratio of 50.5 percent of non-performing loans and leases, which was 15.0 percentage points higher from the previous year. Pertinently, two FIs with high level of non-performing assets could not maintain required provision, which in turn led to the provision shortfall in the industry.

6.2.5 PROFITABILITY

In CY16, principal portion of income of FIs was generated from loans and leases. Interest on deposits and borrowings was the major outlay of total expenses. FIs' profit before taxes decreased by 37.6 percent compared to that of CY15, attributable to 11.7 percent decrease in investment income, 20.1 percent decrease in net interest income, 30.2 percent decrease in other operating income and 21.5 percent decrease in income from commission and brokerage.

CHART 6.5: FIs' PROFITABILITY TREND

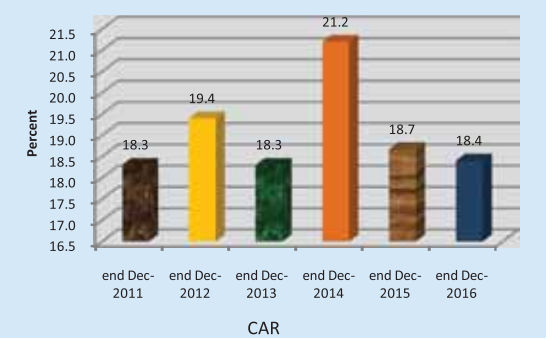


Source: DFIM,BB

During the same period operating expenses and loan loss provisions increased by 17.1 percent and 39.4 percent respectively and tax provisions decreased by 17.6 percent compared to those of the previous year. Consequently, the key profitability ratios-return on assets (ROA) and return on equity (ROE)-decreased moderately. The ROA and the ROE were 0.7 percent and 4.4 percent respectively at end-December 2016.

6.3 CAPITAL ADEQUACY

CHART 6.6: FIs' CAPITAL ADEQUACY RATIO (CAR)

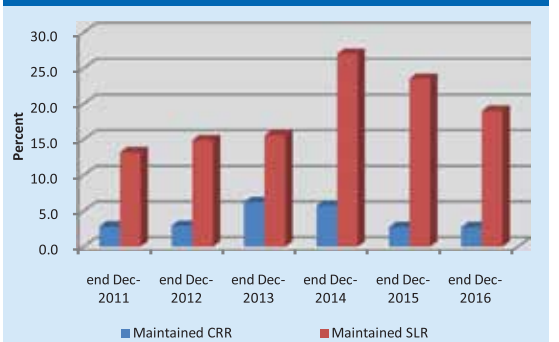


Source: DFIM,BB

FIs are required to maintain capital adequacy as per Bangladesh Bank regulations. The capital adequacy ratio (CAR), maintained in line with Basel II accord, reached 18.4 percent at end-December 2016, compared to 18.7 percent recorded at end-December 2015. However, the total capital alone increased by 8.5 percent compared with that of the previous year. The overall CAR was well in excess of the regulatory minimum requirement of 10.0 percent.

6.4 LIQUIDITY

CHART 6.7: FIs' CRR AND SLR



Source: DFIM,BB

As of end-December 2016, the FIs sector maintained a 2.7 percent CRR and 19.0 percent SLR. Balances with other banks and FIs, call money investment, investments in government securities and any other assets, approved by BB, are considered as the components of SLR. For this reason, the SLR maintained by the FIs was much higher than the amount required. However, 6 FIs could not maintain minimum CRR and 1(one) FI could not maintain minimum SLR as of end-December 2016[74].

In sum, financial institutions exhibited a mixed performance during the year 2016. Higher loan loss provision caused reduction in the profitability which in turn led to a reduction in capital adequacy. Rise in maintained provision may have exerted positive impact on financial institutions' stability though decline in profitability and capital adequacy remained as a source of concern.

[74]FIs, taking term deposits, are required to maintain a statutory liquidity requirement (SLR) of 5.0 percent of their total liabilities, inclusive of an average 2.5 percent cash reserve ratio (CRR) of their total term deposits. FIs, operating without taking term deposits, are required to maintain an SLR of 2.5 percent and are exempted from maintaining CRR.

Chapter 7

FINANCIAL MARKETS

The financial markets of Bangladesh remained mostly stable in CY16. The inter-bank call money market rate maintained a lower trend during 2016. The capital market displayed improved performance over the previous year. Regardless of few internal and external challenges, a new scheduled bank has entered in the financial market of Bangladesh. Slower investment within the country and possible consequences of BREXIT in European Union and US election during 2016 may be considered as possible sources of concerns for Bangladesh financial markets.

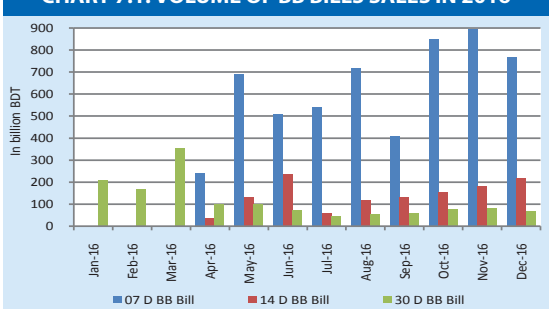
7.1 MONEY MARKET

Bangladesh Bank (BB) occasionally provided Liquidity Support Facilities (LSF) along with Special Repo facility to meet banks' day to day liquidity needs. The Repurchase Agreement (Repo) and Reverse Repo auction remained suspended since 2012 and December 2015 respectively. Banking sector dominated money market during 2016 and did not seem to face any liquidity pressure during this period as evident from a downward moving call money rate.

Bangladesh Bank (BB) bills were used heavily throughout the year for sterilization purpose as well as to continue BB's liquidity management. Sales of treasury bills (T-bills) decreased during the review year.

In 2016, BB introduced 07 and 14 day[75] BB bills for sterilization purpose as well as to manage liquidity in the banking system to keep reserve money growth in line with the program level. Subsequently, BB bills worth BDT 8,257.5 billion were issued in 2016 where 07, 14 and 30 day BB bills were BDT 5,612.1 billion, 1,259.7 billion and 1,385.7 billion respectively.

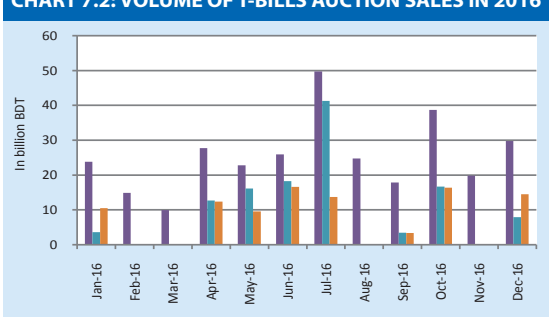
CHART 7.1: VOLUME OF BB BILLS SALES IN 2016



Source: BB website, Economic Data; calculation: FSD, BB

In the first quarter of 2016, BDT 729 billion was mopped up from the banks whereas BDT 3289.4 billion was mopped up in the last quarter indicating heavy use of shorter-term BB bills for implementing BB's monetary policy more effectively. Mentionable that 30 day BB bills worth BDT 507.3 billion made up the total sales of BB Bills in 2015.

CHART 7.2: VOLUME OF T-BILLS AUCTION SALES IN 2016



Source: BB website, Economic Data; calculation: FSD, BB

In 2016, treasury bills (T-bills) worth BDT 522.7 billion were sold through primary treasury auction sales which was 15.9 percent lower than that of the previous year. Shorter-term treasury bills (91-day T-bills) remained as the most common instruments for the Government, as these provide more flexibility for managing public fund than longer-term ones.

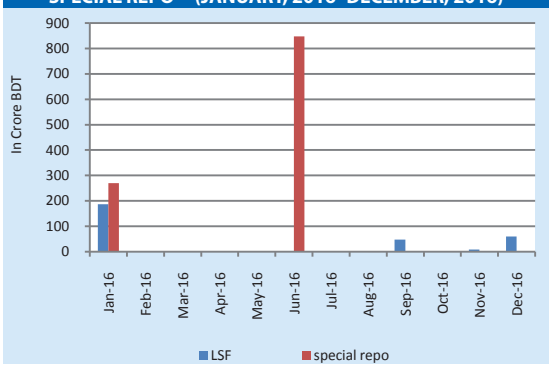
In 2016, among the short-term instruments, the sale of 91-day treasury bills ranked first with BDT 305.9 billion, followed by 182-day and 364-day treasury bills worth BDT 120.0 and 96.9 billion respectively.

[75] DMD Circular No. 03, dated 05 April 2016.

7.1.1 REPO MARKET (WITH BANGLADESH BANK)

The financial institutions collectively became net borrowers to the central bank (in the form of LSF and Special Repo). Earlier they were net lenders (in the form of Reverse Repo). It signifies a structural change in both the financial intermediaries' strategic position and the central bank's monetary policy stance.

CHART 7.3: AVERAGE MONTHLY TURNOVER OF LSF AND SPECIAL REPO[76] (JANUARY, 2016- DECEMBER, 2016)



Source: MPD, BB; calculation: FSD, BB

Turnover of both the Special Repo and LSF were negligible throughout 2016. Indeed, LSF had not been utilized by the banks from February 2016 to August 2016 and Special Repo facility was finally suspended in September 2016. In contrast, no investment was made by banks in the reverse repo since December 2015. During the review period, borrowing of banks, in the form of LSF and Special Repo peaked at BDT 152.1 crore on 12 January 2016 and BDT 848.0 crore on 30 June 2016 respectively.

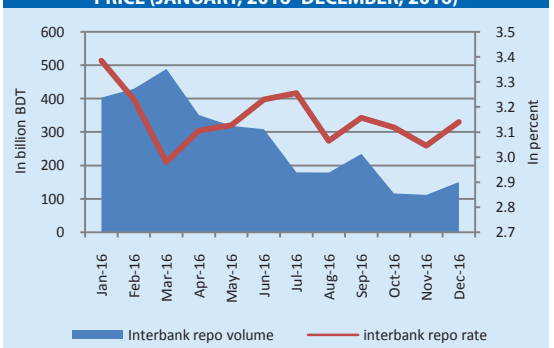
Such low level of repo operation with BB indicates that the financial system had adequate liquidity throughout 2016.

7.1.2 INTERBANK REPO MARKET

The downward trend in the volume of interbank repo was observed throughout 2016. The interbank repo rate[77] decreased by 30 basis points from January 2016 to December 2016. A decreasing volume of interbank repo, over the year, suggests that the market players are becoming less interested in collateralized transactions despite the falling rates.

The interbank repo rate represents the money market rate, as it is determined by the prevailing market forces of demand and supply of funds.

CHART 7.4: INTERBANK REPO TURNOVER AND PRICE (JANUARY, 2016- DECEMBER, 2016)



Source: BB Website, Economic Data; calculation: FSD, BB

Overall interbank repo transactions, which amounted to BDT 3278.3 billion in 2016, showed a 25.0 percent drop from 2015. Volume of transactions declined since April 2016 and remained low throughout the year. The interbank repo rate showed mixed trend reaching the lowest of 3.0 percent in November 2016 from December 2010. Excess liquidity seemed to be eminent throughout the year in 2016.

However, BB was able to reduce excess liquidity in banks and helped to manage inflationary pressure by its prudent measures.

[76] In August 2016, turnover of special repo was BDT 0.5 crore.

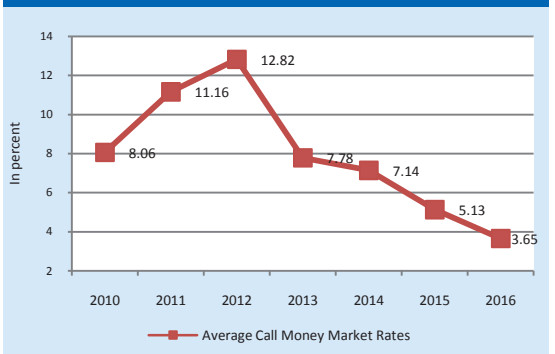
[77] Monthly weighted average interbank repo rate.

7.1.3 INTERBANK CALL MONEY AND INTERBANK DEPOSIT MARKET[78]

Similar to the interbank repo rate, a fall in call money rate was also observed during January 2016 to December 2016 but the transactions in terms of volume were volatile. The presence of FIs in both the call money market and interbank deposit market was significant.

The call money market plays a significant role in the day-to-day liquidity management of the entire financial system. Like the interbank repo rate, the call money rate also reflects money market conditions. However, the call money rate, unlike the interbank repo rate, includes a risk premium for being an unsecured type of instrument.

CHART 7.5: AVERAGE CALL MONEY MARKET RATES (2010-2016)



Source: BB Website, Economic Data; calculation: FSD, BB

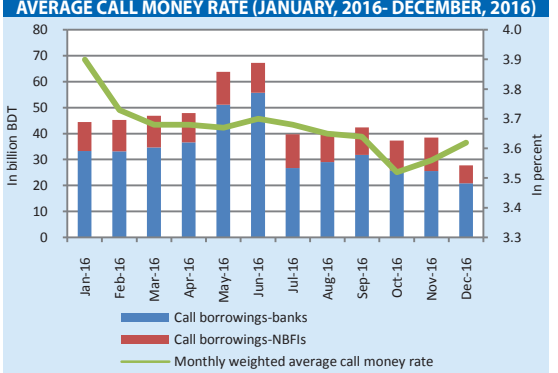
The average rate of the call money market during 2016 remained quite low compared to previous six years. During 2016, the average call money market rate was 3.65 percent showing that financial institutions had adequate liquidity during this period. Compared to 2015 the average rate declined significantly and reached 3.65 percent.

After 2012, there is a trend that banks and FIs have adequate liquidity, as evident from a declining trend in the call money market rate over the years. Subsequently, funding liquidity risk[79] has been reduced for banks and FIs.

At end-December 2016, call borrowing was BDT 27.7 billion, a 1.9 percent lower than that of end-December 2015 (BDT 28.3 billion). During the year 2016, the highest call borrowing was recorded at end-June 2016 amounting to BDT 67.2 billion, and thereafter it gradually declined. The monthly weighted average call money rate decreased by 28 bps from January 2016 to December 2016 and reached at 3.6 percent.

The FIs continued to play an important role, though at a lesser extent compared to the preceding year, in the call money market. FIs on average, borrowed almost 25.0 percent of the total fund of call money market. At end-December 2016, banks provided BDT 6.9 billion to FIs as money at call and short notice. The call money market was found to be heavily concentrated as only 9 (nine) banks shared 76.6 percent of the total volume of call money lending.

CHART 7.6: CALL BORROWING VOLUME AND MONTHLY WEIGHTED AVERAGE CALL MONEY RATE (JANUARY, 2016- DECEMBER, 2016)



Source: BB website, Economic Data & FSD, BB. calculations: FSD, BB

On the other hand, the top 9 (nine) borrowers accumulated 58.8 percent of the total available short-term call funds. State-owned commercial banks (SCBs) replaced private commercial banks (PCBs) as top lenders, in the call money market, with a share of 47.8 percent whereas PCBs remained top borrowers with a share of 52.7 percent. Specialized development banks (SDBs) did not participate in the call money market during 2016.

In contrast to the structure of the call money market, the interbank deposit market[80] was large and competitive. No single bank or cluster of banks dominated either the demand or

[78]Interbank call money only includes exposures of scheduled banks and FIs with one another. Assets or liabilities with non-scheduled financial institutions are excluded from this discussion.
[79]Funding liquidity risk is defined as the possibility that, over a specific time horizon, the bank will become unable to settle its obligation when due.
[80]Any local currency deposit that is held by one bank for another bank.

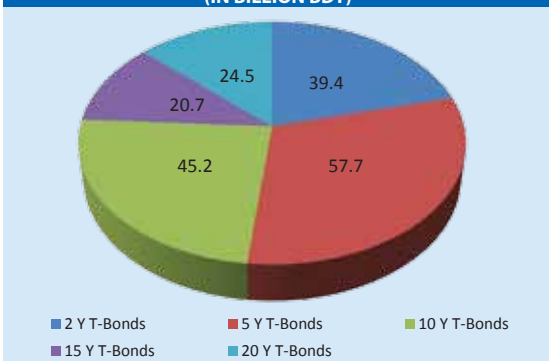
supply side of this market. The total market volume of this market at end-December 2016 reached at BDT 416.0 billion, which is 9.5 percent higher than that of the previous year. Deposits of banks in FIs were BDT 137.9 billion, while FIs' deposits in banks were BDT 75.5 billion. Private commercial banks, FIs and banks operating under Islamic Shari'ah were the major players in this market.

7.2 BOND MARKET

Issuance of long-term treasury bonds (T-bonds) was 21.6 percent higher than that of 2015. Mandatory devolvement of treasury securities on primary dealers (PDs) and Non-PDs was non-existent except for occasional devolvement on BB.

The market for fixed income securities in Bangladesh still needs substantial development. It remained mostly dominated by government securities. In spite of several efforts of the regulators, bourses and market participants, a thriving market has not yet been established. Trading of bonds is important as it increases the efficiency and competitiveness of the financial system. This market also enhances the stability of the system by creating an alternative to bank finance and, of course, acts as a vehicle of transfer of information from credit market (including plausible benchmark interest rates) to policy makers and market participants.

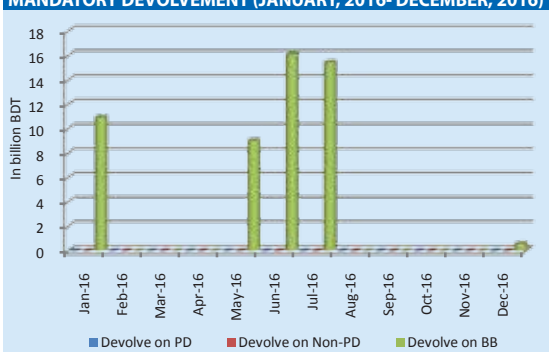
CHART 7.7: VOLUME OF T- BONDS AUCTION SALES, 2016 (IN BILLION BDT)



Source: BB website, Economic Data. calculation: FSD, BB

In 2016, long-term treasury bonds worth BDT 187.4 billion were issued, which was 21.6 percent higher than that of 2015. Out of the total issuance, 5, 10 and 2 years treasury bonds held 31 percent (BDT 57.7 billion), 24 percent (BDT 45.2 billion) and 21 percent (BDT 39.4 billion) share respectively.

CHART 7.8: VOLUME OF TREASURY SECURITIES AUCTION SALES – MANDATORY DEVOLVEMENT (JANUARY, 2016- DECEMBER, 2016)



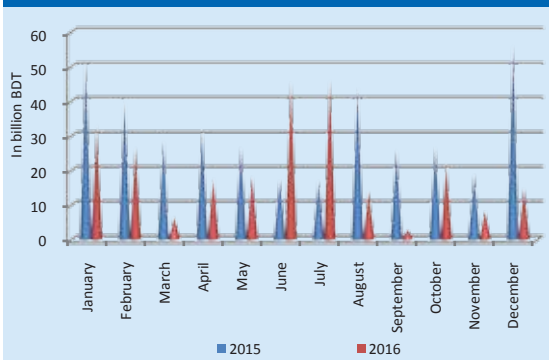
Source: BB website, Treasury Bills/ Bonds Auctions. calculation: FSD, BB

In terms of primary auction sales, no mandatory devolvement on PDs and Non-PDs was observed during 2016. Only devolvement on BB worth BDT 52.3 billion was observed, which is 416.4 percent higher than that of the preceding year and 211.8 percent higher than the overall devolvement of the previous year.

In 2016, the volume of Over-the-Counter (OTC) transactions of treasury securities decreased by 33.5 percent compared with that of 2015.

OTC trading of treasury securities exhibited a 33.5 percent drop in 2016 compared with that of the previous year. Other platforms of secondary trading (i.e., Trade Work Station (TWS) and Dhaka Stock Exchange (DSE)) were not popular.

CHART 7.9: MONTHLY VOLUME OF OTC TRADE



Source: DMD, BB; calculation: FSD, BB

The total volume of treasury securities traded in the secondary market was BDT 257.0 billion during the reporting period. Spikes with the trading volume of BDT 33.2, 45.8 and 46.2 billion were observed in January, June and July 2016 respectively. In September 2016, trading volume of BDT 2.9 billion was the lowest over the last 12 months.

BOX 7.1: YIELD CURVE

In December, 2016, the treasury auction (weighted average cut-off rate) yield curve exhibited a downward trend in both short and long-term yields compared with that of the December 2015 and June 2016 yield curves.

Chart B.7.1: Treasury Bill Yield Curve

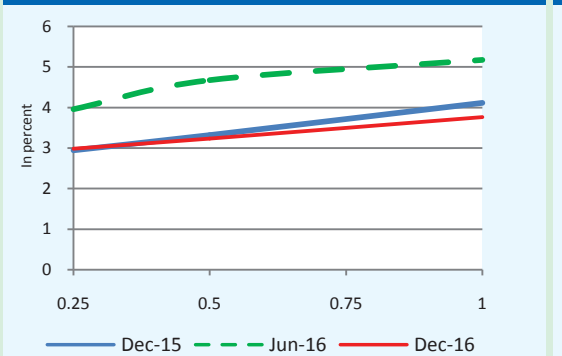
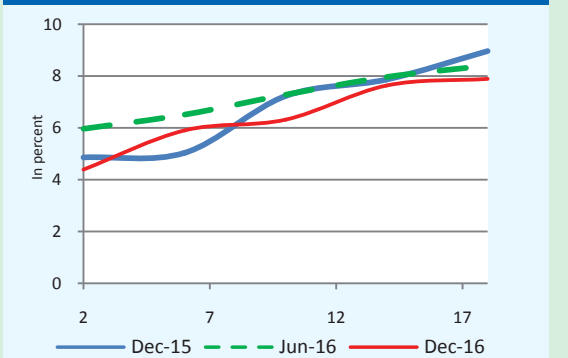


Chart B.7.2: Treasury Bond Yield Curve



Source: Major Economic Indicators, February 2017 Issue, BB.
Note: There was no auction of 2-year treasury bond in December 2016; so November 2016 data was used.

Starting from the shorter end, the yield of T-bills generally reached the December 2015 level, but was always lower than that of June 2016. An overall parallel shift indicates that changes in yields occurred evenly throughout different maturities of T-Bills. The shift was more notable in the later part of 2016.

On the longer end, the downward shift was uneven. The higher maturity bond (10 and 20 years) experienced a larger drop in the yield rates compared to those of the shorter-tenured bonds. Though the yield of 5-years treasury bond reached above the December 2015 level, the overall yield curve was always lower than that of June 2016.

Lowering yield curves is a good sign for investors and borrowers. First, institutional investors holding HFT securities will experience a large gain in their income statement because of the price appreciation of the bonds. Secondly, the lower interest rate will help to boost investment over the near future. Overall, the yield curve shows a positive sign for economy over the forthcoming periods.

7.3 STOCK MARKET

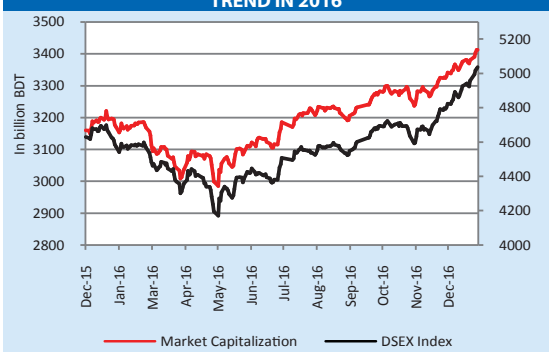
In 2016, both the index value and the trade volume increased at the Dhaka Stock Exchange (DSE), the prime bourse in Bangladesh. The number of listed companies and issued securities also grew at a steady pace.

At present, DSE has 294 companies and 560 securities listed with it[81]. The market capitalization of DSE stood at BDT 3,412.4 billion at end-December 2016, which is about 8.0 percent higher than that of the previous year-end balance of BDT 3,159.8 billion. Total issued capital at DSE, increased to BDT 1,145.3 billion at end-December, 2016 from BDT 1,106.1 billion of end-December, 2015, recording a rise of 3.5 percent over the period.

7.3.1 MAJOR INDEX AND MARKET CAPITALIZATION

Both the DSEX (major index) and market capitalization increased by 8.9 and 8.0 percent respectively in 2016. The market displayed an upward trend from the second half of the review year. However, the market price earnings (P/E) ratio experienced a decline in the last quarter of 2016.

CHART 7.10: DSEX INDEX AND MARKET CAPITALIZATION TREND IN 2016



Source: DSE

DSEX, the major index, increased by 8.9 percent from 01 January 2016 to 31 December 2016. It experienced a drop in the first half, but recovered strongly in the second half of 2016. The highest and lowest values were observed in 29 December 2016 (5036.1) and 02 May 2016 (4171.4) respectively. An overall upward trend was found over the year.

7.3.1.1 MARKET CAPITALIZATION (MCAP) RATIO

In FY 2016, the market capitalization-to-GDP ratio declined to 15.1 percent from 17.9 percent of FY 2015 (Chart 7.11). It is the lowest ratio recorded in the last five financial years. This happened due to the dip in the market capitalization in the first half of 2016 while nominal GDP was higher than that of FY 2015.

CHART 7.11: MARKET CAPITALIZATION RATIO (FY12-16)

CHART 7.12: MARKET CAPITALIZATION & GDP GROWTH (FY13-16)

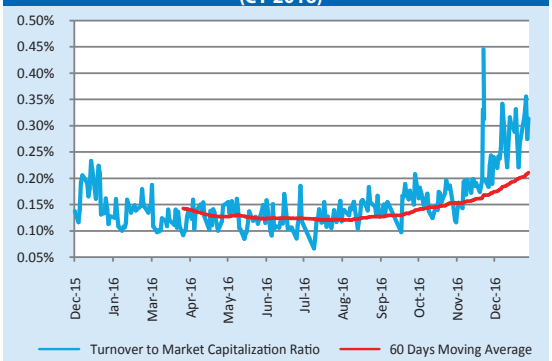
Source: Monthly Economic Trends, February, 2017

During the last couple of years, growth of nominal GDP and market capitalization found to move in same direction. But the trend reversed in FY 2016. While nominal GDP growth rate was stable over the years, market capitalization growth was volatile (Chart 7.12).

[81] Apart from the shares of the listed companies, there are 35 mutual funds, 8 debentures, 221 treasury securities and 2 corporate bonds listed and traded at DSE.

7.3.1.2 TURNOVER TO MARKET CAPITALIZATION RATIO

CHART 7.13: TURNOVER TO MARKET CAPITALIZATION RATIO (CY 2016)



Source: DSE

Turnover to market capitalization ratio was mostly stable during the first three quarters of 2016 and demonstrated an upward trend since then. Compared to the preceding year, not much volatility was observed, with a highest and lowest value of 0.45 and 0.07 percent respectively. The upward movement in the last quarter indicates investors' confidence were growing providing a stable investment environment for both individual and institutional investors.

7.3.1.3 MARKET CAPITALIZATION DECOMPOSITION

CHART 7.14: DECOMPOSITION OF MCAP (DEC- 2016)

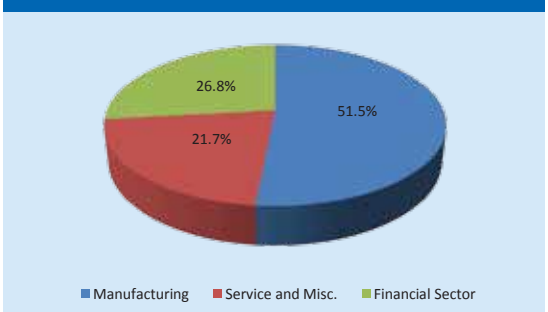
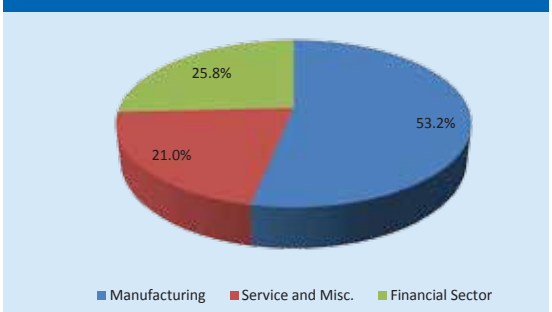


CHART 7.15: DECOMPOSITION OF MCAP (DEC- 2015)



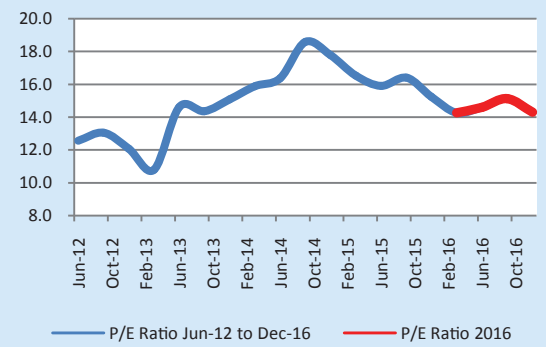
Source: Monthly Economic Trends, February 2017 Issue, BB

Though market share of the financial sector and service and miscellaneous sector increased during 2016, the dominance of manufacturing sector is still prominent in the decomposition of market capitalization.

At end- December 2016, the manufacturing industry captured more than half of the market, with a share of 51.5 percent, from 53.2 percent in the previous year. The share of the manufacturing sector shrank because of decreasing share prices of the food and allied products and paper and printing sectors. The market share of the financial sector and service and miscellaneous sector increased by 100 and 70 basis points (bps) respectively. This increase is largely due to an increased share prices of banks, mutual funds and miscellaneous sectors.

7.3.2 PRICE-EARNINGS (P/E) RATIO

CHART 7.16: MARKET PRICE EARNINGS RATIO (JUNE,2012-DECEMBER, 2016)



Source: DSE

The overall weighted average price-earnings (P/E) ratio of the DSE was 14.3 in December 2016, which was 90 bps lower than that of the previous year. The P/E ratio has been decreasing since September 2014.

Overall, the financial markets in Bangladesh was mostly stable in 2016 with adequate liquidity in money market along with stable bond market as well as stock market. The low level of repo operations with BB during 2016 implies that the banking system enjoyed sufficient liquidity, which is also evident from a falling inter-bank repo rate and call money rate. As short-term interest rates came down along with decreased lending and deposit rates of banks, it is expected that long-term rates would also come down thereby facilitating potential long-term investments. In order to avoid any inflationary pressure stemming from liquidity perspective, BB remained vigilant throughout the year mopping up excess liquidity using BB bills heavily. Government borrowing from the financial system also did not create any pressure on private sector as indicated by a declining sales of treasury securities. Besides, as no mandatory devolvement of treasury securities auction was made on PDs and non-PDs during the review year, the liquidity position of the financial system did not come under any unanticipated pressure. Stock market activities hinted growing investors' confidence reflected through an increase in market capitalization and DSE broad index (DSEX). However, lack of a thriving bond market continued to hurt businesses as they have to rely on costlier source of financing in the form of bank borrowing. As a whole, the Bangladesh financial markets remained well-positioned to absorb any liquidity shocks.

Chapter 8

FINANCIAL INFRASTRUCTURE

Mitigation of systemic risk warrants establishment of safe and efficient Financial Market Infrastructures (FMIs). Indeed, inability to perform expected role by one or more FMI(s) may cause market participants fail to meet their payment obligations, which in turn trigger systemic risk. In such situation, a variety of "knock-on" effects may be observed for incomplete settlement of a payment and push for unwinding or reversing payments; delaying the settlement or close out of guaranteed transactions; or immediately liquidating collateral, margin, or other assets at fire sale prices, and could create significant adverse effects on the markets as well as economy. This, in turn, might lead to further disruptions in the financial system and undermine public confidence in the safety, soundness, and reliability of the financial infrastructure.

8.1 NATIONAL PAYMENT SWITCH BANGLADESH (NPSB)

NPSB has been facilitating acceleration of inter-bank electronic payment and the expansion of retail payment network substantially since its inception in December'2012. In CY16, payment of approximately BDT 67.99 billion has been settled through 10.48 million transactions experiencing a growth of 50 percent and 35 percent in payments and number of transactions respectively.

NPSB facilitates the interbank electronic payments from Automated Teller Machines (ATM), Point of Sale (POS) terminals, online payment gateways, mobile financial services etc. NPSB, the mother switch, works as a common electronic platform for all other switches in Bangladesh. It gears up the card-based payment networks substantially and promotes e-commerce throughout the country.

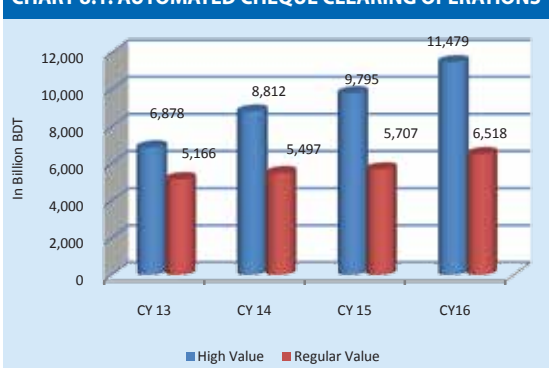
At present, 53 banks are operating card business in Bangladesh. Among them, interbank ATM transactions of 50 banks and interbank POS transactions of 44 banks are being routed through NPSB. As of December 2016, on an average 29,120 transactions amounting to more than BDT 200 millions are settled through NPSB daily.

8.2 BANGLADESH AUTOMATED CHEQUE PROCESSING SYSTEM (BACPS)

High Value transactions in CY16 grew by 17.2 percent from that of CY15. In the same period Regular Value transactions grew by 14.2 percent.

Automated Cheque Processing System (ACPS), an advanced technology driven method, used in banks to reduce the time taken to clear the cheques. It helps the banks in providing better customer services and increasing operational efficiency by cutting down overheads in physical clearing with faster reconciliation and fraud prevention. The BACPS has two presentment clearing sessions and two corresponding return clearing sessions per day. The clearing sessions are High Value (HV) and Regular Value (RV)[82]. The total amount of High Value (HV) and Regular Value (RV) instruments amounting approximately BDT 11,479.5 billion and BDT 6,518.3 billion respectively were cleared in the CY16.

CHART 8.1: AUTOMATED CHEQUE CLEARING OPERATIONS



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

Chart 8.1 illustrates the upward trends, both in high-value and regular-value transactions, continued for the last four years. The trend for high-value check processing from CY13 to CY16

[82]Cheques of amount BDT 500,000 or above represent as HV and below of BDT 500,000 represent as RV.

moved at a relatively faster pace than that of regular value check processing within the same period.

8.3 BANGLADESH ELECTRONIC FUNDS TRANSFER NETWORK (BEFTN)

BEFTN transactions in amount increased around 12.83 percent in CY16 from the previous year.

Bangladesh Electronic Funds Transfer Network (BEFTN) is a central clearing System, operated by Bangladesh Bank that receives entries from Originating Banks (OBs), distributes the entries to appropriate Receiving Banks (RBs) and facilitates the settlement functions for the participating banks. It provides the capacity to offer a wide range of transfers for the participating banks' customers with lowest cost and minimum settlement time. BEFTN has been providing services to both corporate and government bodies since 2011. Salary of more than 28 ministries and govt. offices are now paid through BEFTN. BEFTN processes settlement of electronic credit and debit instructions among all participating banks. Listed public companies are paying their cash dividends through BEFTN network. In CY16, on an average, 41,859 transactions were settled per day, which is 11.2 percent higher than that of CY15. Approximately 15.07 million BEFTN transactions having total value of BDT 986 billion were processed during the CY16 which is 12.83 percent higher than the previous year.

8.4 MOBILE FINANCIAL SERVICES (MFS)

MFS plays a significant role in financial inclusion activities in Bangladesh by utilizing the country's extended mobile network coverage while the growth maintained at a moderate level in CY16.

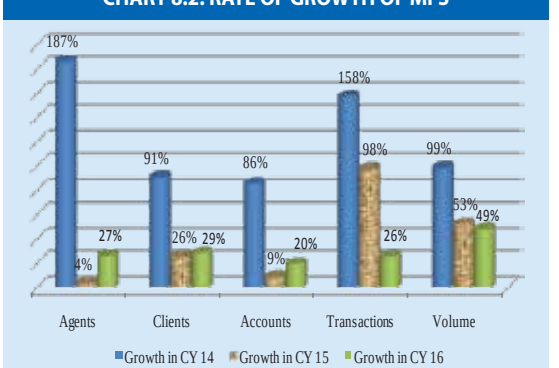
Bangladesh Bank (BB) permitted Mobile Financial Services (MFS) in Bangladesh from 2010, while BB issued the "Guidelines on Mobile Financial Services for Banks" in September 2011 and subsequently revised it in December 2011 and July 2015. A summary picture of MFS status is furnished below:

TABLE 8.1: STATUS OF MOBILE FINANCIAL SERVICES (MFS)

Sl.N.	Particular	End 2014	End 2015	End 2016
1	No. of banks permitted for MFS	28	28	19
2	No. of banks commenced services	19	18	17
3	No. of agents	540,984	561,189	710,026
4	No. of registered clients (in BDT Million)	25.17	31.85	41.1
5	No. of live accounts (in BDT Million)	12.15	13.21	15.87
6	Total no. of transactions (in BDT Million)	549.5	1166.1	1473.2
7	Total transaction in amount (in BDT Million)	1,031,550	1,577,740	2,346,920

Source: PSD, BB

CHART 8.2: RATE OF GROWTH OF MFS



Source: PSD, BB; compilation: FSD, BB.

Although BB issued license to 28 commercial banks to launch MFS in Bangladesh, two private commercial banks closed all of their MFS accounts between end December 2015 and end December 2016. Number of banks permitted for MFS stood 19 as BB revoked permissions of 07 banks to operate MFS due to failure to comply with regulatory standards. Some of the plausible reasons that hindered those banks to launch MFS operations could be higher initial investment, lack of appropriate business model and failure to negotiate Unstructured Supplementary Service Data (USSD) connections from telecom operators.

The growth of MFS was moderate in CY16, as stringent regulatory measures were introduced to check the abuses of MFS. The growth is expected to sustain as widespread and rapidly growing users of mobile phones and the geographical coverage of the 3G mobile network has the potential to be able to offer a cost effective and simple means of making financial transactions to serve the need of unbanked population.

The growth of MFS is expected to enhance financial inclusion as it serves as financial inclusion vehicle in multiple ways. For instance, BB allowed MFS for disbursement of inward foreign remittances, cash in/out using mobile account through agents/bank branches/ ATMs/mobile operator's outlets, person to business payments i.e. utility bill payments, merchant payments, etc., business to person payments i.e. salary disbursement, dividend and refund warrant payments, vendor payments, etc., government to person payments i.e. elderly allowances, freedom-fighter allowances, subsidies, etc., person to government payments i.e. tax, levy payments, etc., person to person payments i.e. one registered MFS account to another registered MFS account and other payments like microfinance, overdrawn facility, insurance premium, DPS, etc. The year-to-year (CY15 to CY16) growth of volume of transactions through MFS portrayed in the following table:

TABLE 8.2: CATEGORY-WISE GROWTH OF MFS

(In million BDT)

Category	CY15	CY16	Growth (%)
Inward Remittance	381.5	747.1	95.8%
Cash In	665,702.5	1,000,187.4	50.2%
Cash Out	576,696.0	902,224.4	56.4%
P2P	278,795.6	351,243.3	26.0%
Salary Disbursement (B2P)	12,985.7	24,550.2	89.1%
Utility Bill Payment (P2B)	14,562.5	22,865.5	57.0%
Others	28,610.5	45,041.4	57.4%

Source: PSD, BB; compilation FSD, BB.

The table shows that inward remittances and salary disbursement of mostly RMG workers gained massive growth in CY16 compared with the volume of transactions in CY15. Highest volume of transactions recorded in 'Cash In' operations followed by 'Cash Out' operations enabling fastest money transfer to MFS accounts within that time period. It also meant that people use MFS mostly as a cash transfer services. But other use of MFS like utility bill payment, salary payment, payment collection, merchant payment, and mobile phone recharge is also gaining popularity.

8.5 ELECTRONIC BANKING OPERATIONS

Electronic banking operations showed a modest growth in CY16 with higher volume of card-based transactions.

Electronic banking has different aspects like Internet banking, Online Banking and e-payment. In Bangladesh, 55 out of 57 banks have at least one online branch and 41 banks have introduced internet banking till December 2016.

TABLE 8.3: ONLINE BANKING SCENARIO AS AT END-DECEMBER , 2016

Type of Bank	No. of ATMs	No. of Total Branches	No. of Branches with Online Coverage	% of Online Branches
SCBs	178	3,726	2,279	61.16
SDBs	0	1,410	152	10.78
PCBs	8,517	4,552	4,551	99.98
FCBs	175	72	72	100.00
Total	8870	9,760	7,054	72.27

Source: Sustainable Finance Department, BB

CHART 8.3: BANKS PROVIDING ELECTRONIC BANKING

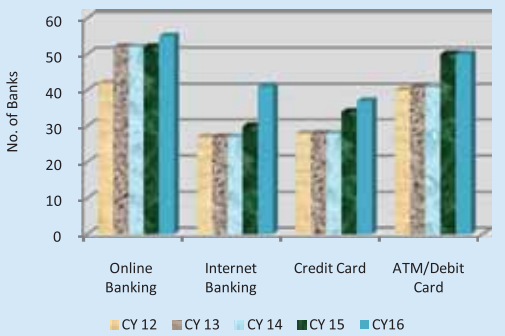
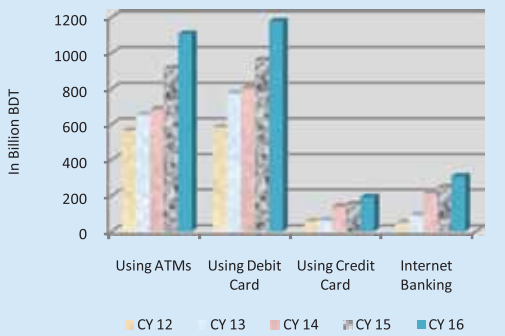


CHART 8.4: TOTAL VOLUME OF ELECTRONIC BANKING TRANSACTIONS



Source: Statistics Department, BB.

Chart 8.3 shows the adoption of electronic banking and Chart 8.4 depicts the volume of electronic banking transactions during CY12 to CY16. Volumes of transactions using ATMs have been rising fast since CY12. Uses of debit cards showed an increasing trend while moderate growth was observed for credit cards and internet banking. Number of debit card holders grew from 8,606,235 to 9,948,690 (growth of 15.6 percent) while the number of credit card holders grew from 609,097 to 946,954 (growth of 55.4 percent) during CY16.

8.6 CENTRAL DEPOSITORY SYSTEM

Central Depository Bangladesh Limited (CDBL) is engaged in the operations of the Central Depository System (CDS), a major financial market infrastructure in Bangladesh assisting listed companies in the handling of script less delivery, settlement and transfer of ownership of securities through computerized book entry system.

The agents of CDBL, which extend depository services, are called Depository Participants (DPs). At present, there are 338 full-fledged DPs, 4 full-fledged exchange DPs, 94 custodian DPs and 44 treasury DPs registered under CDBL. In addition, there are 369 issuers and 369 International Securities Identification Numbers (ISINs) registered under CDBL. The number of investor's BO accounts in operation as of end-December 2016 stood at around 3.1 million.

8.7 REAL TIME GROSS SETTLEMENT (RTGS) SYSTEM

It is an electronic settlement system capable of instant settlement of local currency transactions as well as government securities and foreign currency based transactions. In CY16, it has settled approximately BDT 11283.88 billion.

Real Time Gross Settlement (RTGS) is a central processing and settlement facility system which was launched on 29th October 2015. It settles money or securities where both processing and final settlement of funds transfer can take place with immediate effect (i.e., in real time and gross in amount).

In CY16, it has settled approximately 222,550 transactions amounting to BDT 11283.88 billion. A total of 6111 online branches of 55 scheduled banks are currently connected to RTGS system. Using this system, the settlements of BDT 100,000 (one hundred thousand) or above between the participating banks are being settled instantly.

8.8 UPCOMING DEVELOPMENTS

As Bangladesh is poised herself strongly at the digital frontiers of payment systems, robust payment mechanisms will be required to fulfill the growing demand of faster, secure and efficient payment systems.

Establishment of a clearing and settlement company: A key risk attached to financial market transactions is counterparty credit risk i.e. the risk that one party to a contract defaults and cannot meet its obligations under the contract. This can lead to a loss for the counterparty on the other side of the contract. If those losses are severe enough, they may cause the affected parties' financial distress which, in turn, can have a knock-on effect for their creditors. In this way, counterparty credit risk is an important channel for contagion effect and can be a potential source of systemic risk.

In view of the above risks BSEC's long term master plan (2012-2022) incorporates policies to grant a license for establishing a clearing and settlement company within 2018. The subsequent establishment of a clearing and settlement company will enable a central counterparty entity to be the guarantor for settlement of derivative contracts. The introduction of guideline by BSEC[83] for issuing derivatives will encourage the development of instruments such as interest rate swaps and currency swaps that would be settled through this facility.

Data Security and EMV Compliance: Achieving international accreditation for ensuring safe and secure payment system is one of the objectives of BB's strategic plan 2015-2019. Upgrading the payment system to Payment Card Industry Data Security Standard (PCI-DSS) compliant environment and attaining EMV (Euro pay, MasterCard, and Visa) compliant transaction system will be the next course of action in this regard. This demands engagement of multiple departments such as ITOCD, ISDD, FSSSPD and PSD. The latter department with the active support of earlier ones is expected to implement the above mentioned actions by 2018.

It is to mention that the PCI-DSS is a proprietary information security standard for organizations that handle branded credit cards from the major card schemes including Visa, MasterCard, American Express, Discover, and JCB. The PCI Standard is mandated by the card brands and administered by the Payment Card Industry Security Standards Council. The standard was created to increase controls around cardholder data to reduce credit card fraud. On the other hand EMV chip technology is becoming the global standard for credit card and debit card payments. Named after its original developers (Europay, MasterCard and Visa), this technology features payment instruments (cards, mobile phones, etc.) with embedded microprocessor chips that store and protect cardholder data.

There have been major changes in the nature and operation of payment systems over recent years as our economy is growing fast along with sophistication of financial markets, which has caused the proliferation of the number and volume of transfers that take place through our financial infrastructure. In addition, the technological revolution in the fields of information technology and communications has had profound implications in terms of the speed and variety of transactions. Hence payment and settlement systems must ensure the optimum balance between security and efficiency, guaranteeing a prompt final settlement. Given the uncertain consequences that a failure in the payment systems could hamper the implementation of monetary policy and associated systemic crisis may bring adverse impact to financial stability, the role of BB for safe and efficient functioning of financial infrastructure is critical for the stability of Bangladesh economy.

[83] http://www.secbd.org/Guidelines%20of%20financial%20derivatives_20.06.2016.pdf

Chapter 9

FOREIGN EXCHANGE MARKET

9.1 INTRODUCTION

The foreign exchange (FX) market demonstrated a moderate level of stability in the calendar year 2016 (CY16), compared to the preceding year. However, a considerable fluctuation was observed in the overall net liquidity position in FX market during the review year. The Bangladesh Taka (BDT) demonstrated a mixed movement against the US Dollar (USD). BDT appreciated significantly in January 2016. It shows fluctuations in the month of February and March 2016. BDT remained mostly stable during April-September 2016. BDT depreciated against USD during the months of October and December, 2016. Both the current account balance and the overall balance of payments (BOP) were positive in Financial Year 2016 (FY16). Bangladesh Bank (BB) had to purchase USD 3.32 billion from the domestic FX market and sell USD 8.0 million, as an indirect measure, to keep the FX market stable in CY16.

9.2 FOREIGN EXCHANGE ASSETS AND LIABILITIES

In Bangladesh financial system, the FX market plays a significant role by facilitating the international trade and finance. As of December 2016, 981 authorized dealer (AD) bank branches and 234 money changers, 07 overseas bank branches and 29 exchange houses actively engaged in FX market. However, actual assets and liabilities of banks, denominated in foreign currency, constitute a minor portion compared to the aggregate assets of banking sector. The total amount of FX assets and liabilities of banks were USD 6.0 billion and USD 5.5 billion respectively at end-December 2016, representing about 4.06 percent of banking sector aggregate assets and about 4.01 percent of aggregate liabilities. Charts 9.1 and 9.2 depict the shares of each of the components of FX assets in CY16 and CY15 respectively. FX assets are held by banks in six major accounts namely BB clearing account, cash holding, debit balance in nostro accounts of local banks, foreign currency bills purchased, off-shore banking units (OBUs) and others. Asset exposure in debit balance of nostro accounts and foreign currency bills purchased decreased by 4.0 and 3.0 percent respectively, in CY16.

CHART 9.1: COMPONENTS OF FX ASSETS (END-DECEMBER 2016)

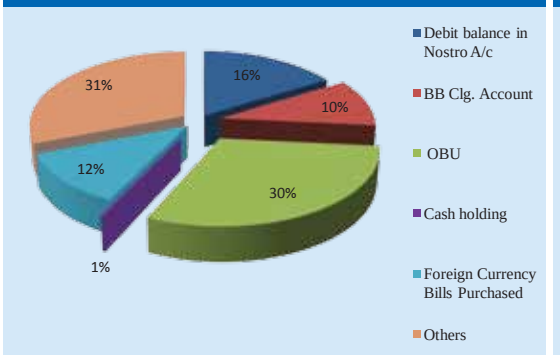
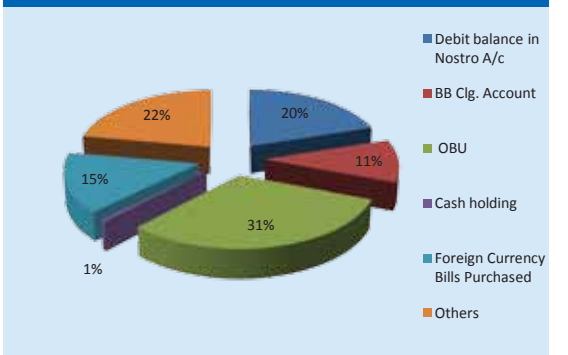


CHART 9.2: COMPONENTS OF FX ASSETS (END-DECEMBER 2015)



Source: FEPD, BB

On the other hand, FX liabilities are held in eight major accounts. These are back to back L/C, credit balance in nostro account, exporters' retention quota, foreign currency deposit accounts, Foreign Demand Draft (FDD), Telegraphic Transfer (TT), Mail Transfer (MT) payable, Non-resident Foreign Currency Deposit (NFCD) accounts, Resident Foreign Currency Deposit (RFCD) accounts and others.

CHART 9.3: COMPONENTS OF FX LIABILITIES (END-DECEMBER 2016)

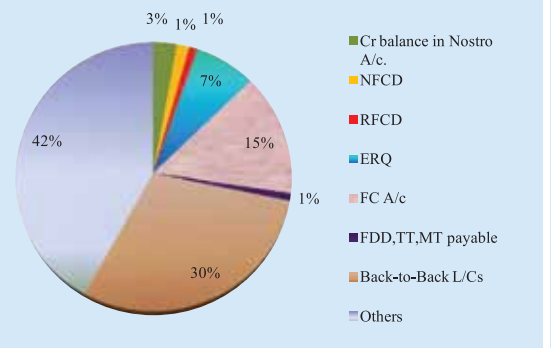
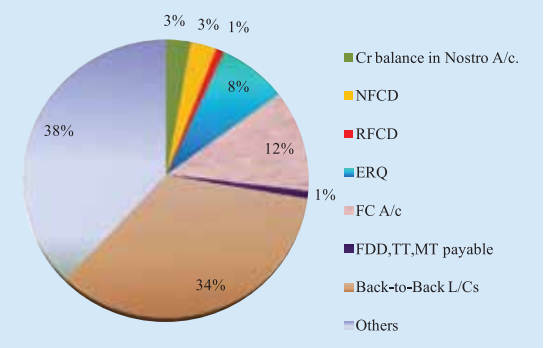


CHART 9.4: COMPONENTS OF FX LIABILITIES (END-DECEMBER 2015)

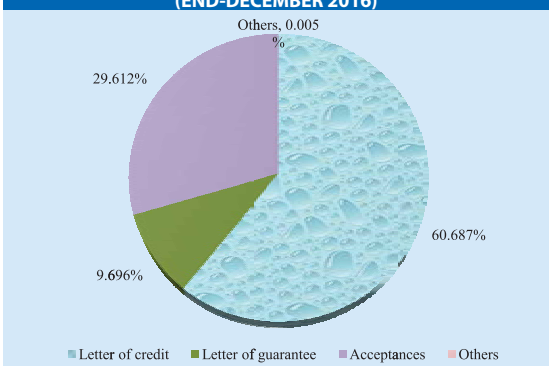


Source: FEPD, BB

Charts 9.3 and 9.4 depict the shares of each of the components of FX liabilities in CY16 and CY15 respectively. About 30.0 percent of FX liabilities were held as back-to-back L/C, 15.0 percent of the FX-denominated liabilities was kept in foreign currency accounts, while 42.0 percent was held for other purposes.

9.3 FOREIGN EXCHANGE CONTINGENT LIABILITIES

CHART 9.5: COMPONENTS OF FX CONTINGENT LIABILITIES (END-DECEMBER 2016)



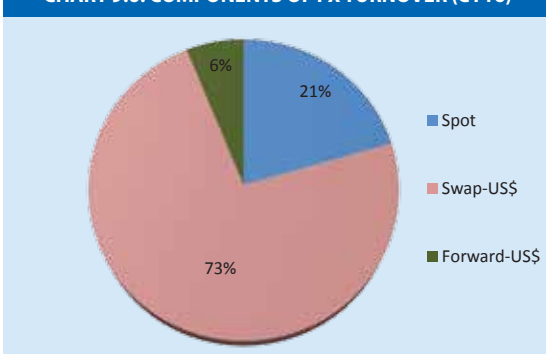
Source: FEPD, BB

Contingent liabilities constitute an important part of FX liabilities. Banks are participating in this market to earn more profit without the burden of carrying additional on-balance sheet liabilities. FX contingent liabilities are held in four major accounts; letter of credit, letter of guarantee, acceptances and others. Chart 9.5 depicts the shares of each of the components of FX contingent liabilities.

About 60.69 percent of FX contingent liabilities were held as letter of credit, 29.61 percent of the contingent liabilities were due to acceptances, while 9.69 percent were for letter of guarantee while 0.005 percent were for other purposes. At end-December 2016, total contingent liabilities was USD 31.23 billion, which was more than five times of the total FX assets.

9.4 INTERBANK (LOCAL) FX TURNOVER

CHART 9.6: COMPONENTS OF FX TURNOVER (CY16)



Source: FRTMD, BB

The FX market of Bangladesh is relatively less complex compared to other countries. The FX derivative market, such as futures, options, etc., exists, with very limited scale. Forward transactions are rarely done.

Almost all dealings/transactions were executed in the spot market until 2014. However, since 2015, swaps in USD consisted of significant portion of the FX turnover. Chart 9.6 shows that almost 73.0 percent of the total FX turnover was represented by swap transactions in USD during CY16. On the other hand, 21.0 percent of transactions were made in the spot market both in USD and other currencies.

During CY16, almost 97.58 percent of inter-bank FX transactions were done in USD. But turnover in all the forms such as spot, swap and forward transactions somewhat declined in CY16. The monthly average turnover of inter-bank FX transactions (spot) was USD 320.28 million in CY16, compared to USD 370.7 million in CY15 and USD 475.7 million in CY14; whereas swap transactions decreased by 3.0 percent from USD 1,149.46 million in CY15 to USD 1147.55 million in CY16. During CY16, the total turnover of inter-bank FX transactions was USD 18,772.89 million, more than three times of the total FX assets.

CHART 9.7: ANNUAL FX TURNOVER

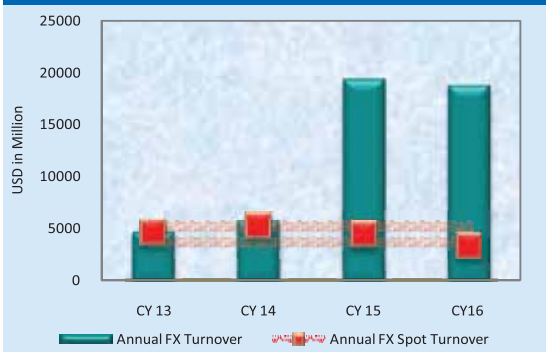
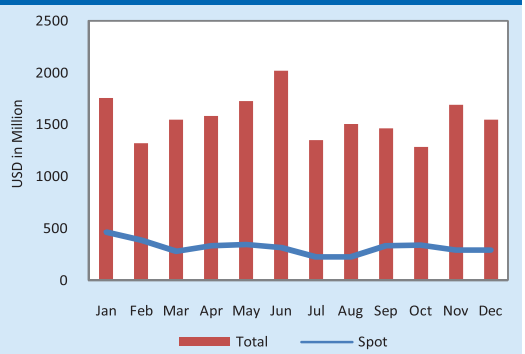


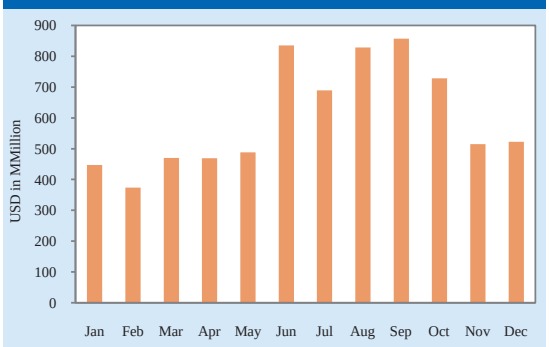
CHART 9.8: MONTHLY FX TURNOVER (CY16)



Source: FRTMD, BB

Chart 9.7 depicts the trend of FX turnover in the preceding four consecutive years. During CY16, the FX turnover was almost stable compared to that of the preceding three calendar years. Standard deviation of turnover position was 84.9, 107.0 and 119.7 in CY13, CY14 and CY15 respectively (only spot market turnover in USD); whereas the FX turnover was comparatively less volatile with a standard deviation of 66.65 during CY16.

CHART 9.9: FX NET OPEN POSITION (CY16)



The overall net FX position was USD 522.54 million at end-December 2016. The highest amount of the position was USD 856.95 million at end-September 2016, while the lowest amount was USD 373.52 million at end-February 2016. However, the net FX position showed moderate stability during CY16.

Source: FRTMD, BB

9.5 EXCHANGE RATE MOVEMENT AND ITS VOLATILITY

The FX market displayed some resilience with low volatility in terms of the movement of the nominal exchange rate in the review year. The dispersion between the minimum and the maximum USD-BDT rate was 0.38, compared to that of the three preceding calendar years, when this dispersion was 1.7, 0.46 and 0.94 in CY13, CY14 and CY15 respectively. The lowest exchange rate (USD-BDT 77.40) prevailed continuously during April-September 2016; while December 2016 showed the highest rate (USD-BDT 78.78).

CHART 9.10: EXCHANGE RATE MOVEMENT

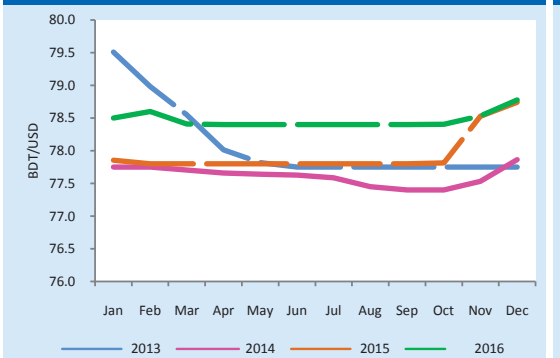
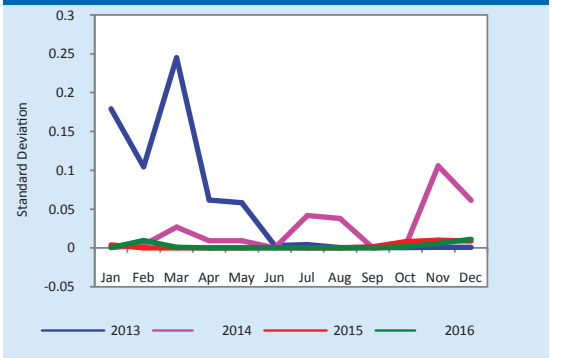


CHART 9.11: VOLATILITY OF EXCHANGE RATE MOVEMENT



Source: FRTMD, BB

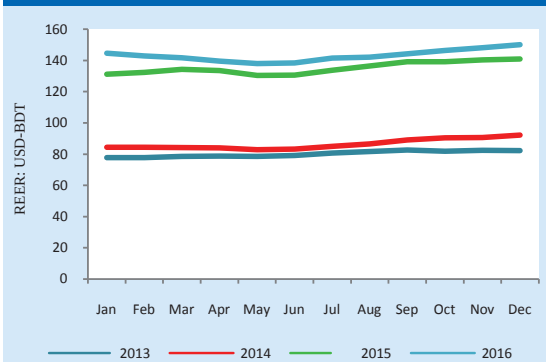
Chart 9.10 shows that the monthly average nominal USD-BDT exchange rate in CY16 (green dot line) was almost stable except during the period of October-December 2016. The USD-BDT rate depreciated by 0.83 percent in January 2016 and 0.04 percent in December 2016 compared to respective rates of corresponding months of CY15. Exchange rate appreciated and then remained almost stable during April-September 2016. The exchange rate started to depreciate again from October 2016, and continued until December 2016, same as the previous years' scenario.

When using standard deviation of daily USD-BDT rates as the measure of volatility of the FX market, the FX market was found to be stable in CY16 and very close with that of CY15 (chart 9.11). The standard deviation of the USD-BDT rate was only 0.0025 in CY16, 0.0027 in CY15, 0.025 in CY14 and 0.055 in CY13.

9.6 MOVEMENT OF REER AND ITS VOLATILITY

For the first time the REER[84] started to appreciate continuously during February-May, 2016. Subsequently, it started to depreciate, which continued till January 2016 with minor exceptions. The minimum USD-BDT rate was 137.87 in May 2016, and reached the maximum 150.01 in December 2016. The dispersion between the minimum and maximum USD-BDT REER was 12.14 in CY16, while it was 10.60 and 9.26 in CY15 and CY14 respectively.

CHART 9.12: REER MOVEMENT



Source: Monetary Policy Department, BB

Chart 9.12 depicts that CY16 (blue line) demonstrated a comparatively less volatile scenario than CY15, but more volatile scenario than CY14 and CY13 as the standard deviation of REER was 3.79 in CY16, while it was 3.90 and 3.23 in CY15 and CY14 respectively. When using standard deviation as the measure of volatility, it is observed that the REER was more volatile than the nominal exchange rate in CY16.

[84]The Real Effective Exchange Rate (REER) index is a combination of 10 currencies in a basket with the base year set at 2010-11=100; it is a measure that adjusts the nominal exchange rate for differences in domestic inflation and those of the country's main trading partners.

9.7 OPENING AND SETTLEMENT OF LETTER OF CREDIT (L/C)

The total value of L/C opening increased by USD 5.57 billion and reached to USD 48.42 billion in CY16 from 42.85 billion in CY15; and the value of L/C settlement increased by USD 6.39 billion and reached to USD 45.56 billion in CY16 from 39.17 billion in CY15. In percentage terms, the value of L/C opening increased by 13.0 percent and L/C settlement increased by 16.32 percent in CY16 over CY15. The maximum amount of L/C was opened in January 2016, and the maximum L/C was settled in April 2016.

CHART 9.13: L/C OPENING

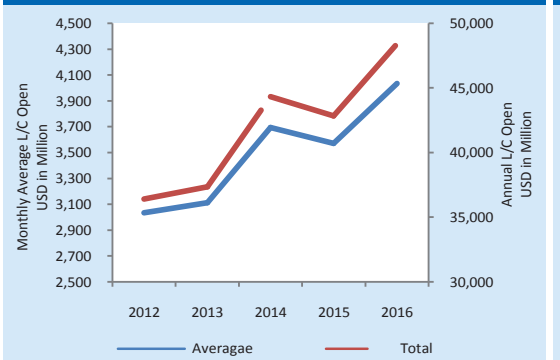
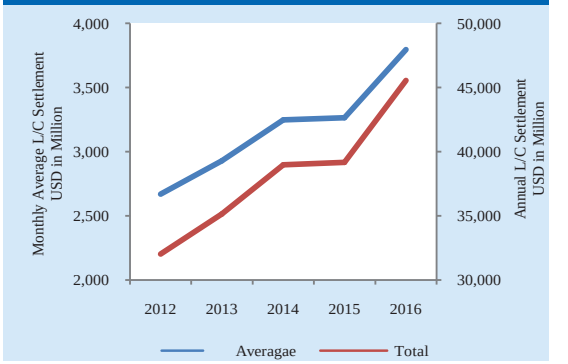


CHART 9.14: L/C SETTLEMENT



Source: FEOD, BB

9.8 WAGE EARNERS' REMITTANCE

The wage earners' remittances decreased sharply by USD 1.71 billion (11.16 percent) and reached to USD 13.61 billion during CY16 from USD 15.32 billion in CY15. June 2015 data demonstrated the highest inflow of remittance (USD 1.47 billion); while November 2016 recorded the lowest inflow (USD 9.51 billion).

CHART 9.15: MONTHLY WAGE EARNERS' REMITTANCE (2014-16)

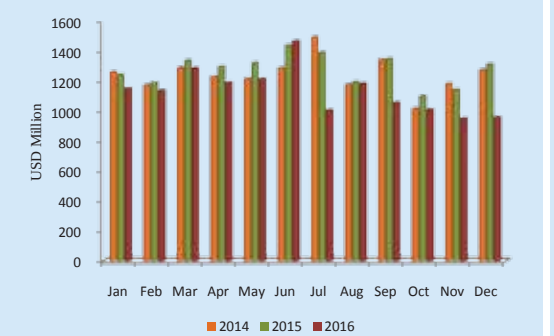
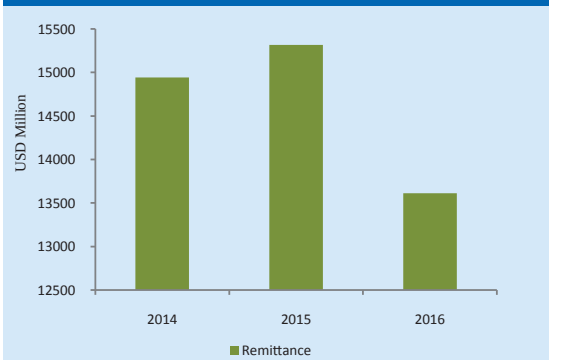


CHART 9.16: WAGE EARNERS' REMITTANCE (2014-16)



Source: Monthly Economic Trend, BB

Chapter 10

DEVELOPMENTS IN THE FINANCIAL SYSTEM

Bangladesh Bank, as the central bank, has taken various initiatives during the CY16. These initiatives have contributed to develop more inclusive financial system and thus help to maintain macro financial stability. The major initiatives are mentioned below in brief:

10.1 BANKING REGULATIONS AND POLICIES

Core Banking Solution (CBS)

Bangladesh Bank introduces a uniform Core Banking Solution (CBS) for all scheduled banks to be implemented within one year from December 2016. Banks have been advised to consult (if required) IT Operation and Communication Department (ITOCD) of BB. In this connection, a detailed guideline was circulated through BRPD Circular no. 08 dated 1st December 2016. The main objective of the uniform CBS is to develop a collaborative approach to guide the banks for maintaining minimum required features and controls in their CBS and other related banking solutions so that the banks can comply with most of the stakeholders' requirements. The guidelines cover necessary features and controls of banking services, for example, General Banking, Bills and Remittance, Deposits, Loans/Credit/Investment, Trade Service, Treasury, System Administration and Reporting. A standard and flexible CBS is a significant contributor to a bank's ability to respond quickly to the diversified business including compliances with changing regulations.

Revision of interest rate on agricultural and rural credit

Considering the downward trend in both deposit and lending rates, Bangladesh Bank revised the interest rate on agricultural and rural credit from 1st of July 2016. According to the BRPD circular number 5 dated 14 June 2016, all banks have been advised to charge maximum 10 percent interest rate instead of current 11 percent on agricultural and rural credit considering the sector as a priority one.

Amendment of guidelines on 'Risk based Capital Adequacy' for banks

Bangladesh Bank has amended Section 3.1.3 of the 'Guidelines on Risk-based Capital Adequacy-Revised Regulatory Capital Framework for banks in line with Basel-III' allowing inclusion of the entire general provision/general loan-loss reserve maintained against unclassified loans and advances in Tier-2 capital (BRPD circular letter number 05/2016 dated 31 May 2016). Earlier the amount eligible for inclusion was limited to a maximum 1.25 percent of credit risk-weighted assets.

New scheduled bank 'Shimanto Bank Limited' in operation

The newly established private sector bank 'Shimanto Bank Limited' has resumed its operation as a scheduled bank in Bangladesh on 21st July 2016. As such, total number of scheduled banks in Bangladesh stands at 57.

Investment in non-listed special purpose funds

Bangladesh Bank issued DFIM circular no. 04 on 30 March 2016 regarding investment in non-listed special purpose funds (Alternative Investment Fund, Special Purpose Vehicle or similar) which are registered with BSEC. As per the circular, the aggregate investment in such funds shall not exceed 50 percent of an FI's paid up capital and investment in single fund shall not exceed 10 percent of paid up capital or 20 percent of that particular fund, whichever is lower. FIs shall need to obtain approval from their Board of Directors and Bangladesh Bank before making commitment to invest in such funds.

Integrated Risk management Guidelines for Financial Institutions

An 'Integrated Risk management Guidelines for Financial Institutions' was issued by Financial Institutions and Market Department on 24 January 2016 (DFIM circular no. 03) in pursuant to strengthening and promoting the overall risk management framework in a systemic way within financial institutions. The objective of the guideline encompasses establishing better risk management cultures and promoting inclusive risk management approach within the institutions. The guideline also provides some techniques in managing possible risks, especially risk identification, measurement, monitoring and mitigation under formal organizational set up as per the standard policies and procedures.

Uniform guidelines on commercial paper (CP)

Bangladesh Bank has issued a detailed guideline on Commercial paper (CP[85]) transaction procedure for all participants in money market (BRPD circular number-07/2016 dated 25 September 2016). As an alternative to bank financing, it enables the issuers of CPs to diversify their sources of short-term borrowings and promotes competitiveness of the financial sector. Besides, considering the diversified role of financial institutions, a separate guideline on 'Commercial Paper for Financial Institutions in Bangladesh' was issued on 29 May, 2016 in order to avert the difficulties experienced by financial institutions to meet up short-term demand for liquidity.

Guidelines on stress testing for non-bank financial institutions

An amended guideline on 'Stress Testing for Non-bank Financial Institutions' was issued by the Department of Financial Institutions and Market on 19 January 2016. The objective of the guidelines is to ensure that financial institutions become more shock resilient and overall financial system can be more healthy and sustainable.

Effluent Treatment Plant (ETP) for sustainable environment financing

Sustainable Finance Department issued SFD circular no. 03 on 08 December 2016 obligating the use of Effluent Treatment Plant (ETP) for all business entities, where applicable. This circular has been issued in pursuant to decisions taken in National Environment Committee.

Establishment of Integrated Supervision Management Department

Integrated Supervision System (ISS) has been initiated in Bangladesh Bank in order to strengthen the supervision activities of Bangladesh Bank as well as to improve the internal control and compliance (ICC) and management information system (MIS) of the financial system. In this regard, a department titled 'Integrated Supervision Management Department' has been established on 24 November 2016. The objective of the department is to make integrated supervision system more effective for supervision of scheduled banks, meeting data requirement for on-sight supervision departments of Bangladesh Bank and inclusion of operational, credit, market and liquidity risk profile at head office level as well as branch level.

Development of special inspection optimization tool

A new risk identification tool 'Pre-inspection Assessment Report (PIAR)' has been developed following the recommendation of the Advisory Committee of Integrated Supervision Management Department and Section 3.2.2(7-8) of the On-sight Supervision Guideline 2015 of Bangladesh Bank. PIAR is a special type of risk calculator to optimize inspection works. This report would be prepared using the data provided by commercial banks to the Integrated Supervision System (ISS). Basically, the report will be auto generated by simply copying ISS data and pasting the same in the input

[85]CP is a short-term money market instrument, which has an original maturity between a minimum of seven days to a maximum of one year, issued/sold usually by highly rated large companies.

template of PIAR. It will enable to draw an indicative picture regarding the financial health and risk profile of a bank branch to be inspected. The use of PIAR has come into effect on August 01, 2016. In short, PIAR satisfies the following issues:

- Assist in drafting a pre-inspection planning before conducting the on-site inspection of a bank branch.

- Optimize inspection time and efficient use of resources by inspection team since critical risk areas are pre-identified by PIAR.

- Risk issues are analyzed by PIAR encompassing overall risk coverage, so maximum risk areas of a bank branch may be covered during inspection.

- PIAR would serve as a guidance for probable course of action to be taken during inspection. Therefore, inspection becomes somewhat easy for a relatively less experienced or a new inspector.

- In future, PIAR could be used as a basis for selection of bank branches for preparing inspection program by the on-site inspection departments.

- With the help of PIAR supervising authority can easily assess whether the inspection team can effectively verify the substantial risk issues of the bank branches while conducting inspection. Besides, the inspection report approving authority may cross-check the submitted inspection report with PIAR and justifies the quality of the inspection task performed by the team.

- In general, PIAR would greatly improve the quality of on-site inspection process and may lead to overall development of inspection report.

10.2 DEVELOPMENT IN FOREIGN EXCHANGE REGULATIONS

Bangladesh Bank (BB) has made some revisions in the foreign exchange regulations in 2016. These are as follows:

- Considering the increasing growth of trade in foreign exchange, BB has re-fixed the limit of net open position at 20% of total eligible capital for Authorized Dealers. The main objective of such changes is to keep the foreign exchange market stable.

- A number of circulars have been issued on cash incentive/export subsidy to expedite exports. The rate of cash incentive for export of leather goods, textile goods in Euro Zone and also for frozen shrimp has been enhanced; several other goods such as potato starch, furniture, plastic goods, paper/paper products and auger/atar are included in the list of goods eligible for export subsidy. Besides, different policy instructions for disbursement of export subsidy against export of corn seed and vegetables, carbon produced from jute stalk, intestines, horns and tendon of cow and buffalo have been circulated.

- The Operation Manual (OM) and other relevant instructions including interest rate on long term financing for private sector firms under the Financial Sector Support Project (FSSP), financed by IDA, have been revised for smooth functioning of the schemes.

- The limit of International Credit Cards (ICCs) for online payment has been increased to USD 300 or its equivalent per transaction against legitimate purchases of goods and services (downloadable application software, e-books, magazine/newspaper subscription fees etc.) from reputed and reliable sources abroad.

- Single transaction limit to repatriate income through Online Payment Gateway Service Providers (OPGSPs) against export of services has been enhanced to USD 5000 from USD 2000.

- Authorized Dealers (ADs) have been allowed to issue guarantees in foreign currency up to Saudi Riyal 200,000 to the official pilgrimage (Umrah) service providers in Saudi Arabia.
- Under Asian Clearing Union (ACU) arrangement, minimum threshold amount for transaction through ACU member central banks has been set at ACU Dollar or ACU Euro 500.
- Bangladesh Bank has clarified some foreign exchange regulations regarding the entities of different economic zones established under "The Bangladesh Economic Zones Act, 2010".
- Authorized Dealers (ADs) have been allowed to release foreign exchange without visa to the resident Bangladeshi nationals proceeding to the countries/zones with provision of visa on port entry/arrival basis up to the unused annual travel quota entitlement applicable for the country concerned subject to complying other relevant instructions. Earlier, the provision of releasing foreign exchange to outbound travelers without visa was limited to USD 200 or equivalent.
- The maximum borrowing limit of ADs from Export Development Fund (EDF) against their foreign currency financing of input procurement for BGMEA member mills has been enhanced from USD 15 million to USD 20 million.
- ADs have been allowed to release foreign exchange towards remittance of fees related to publication of articles in reputed international journals written by resident Bangladeshi nationals subject to some stipulated compliances.
- BB has enhanced the limit to release foreign exchange to private sector participants for attending seminars, conferences, workshops and training, etc. in abroad on per diem basis. Hence, authorized dealers (AD) may release USD 350 per diem for SAARC member countries or Myanmar, and USD 400 per diem for other countries for the stated purposes, however, any amount beyond this limit will require prior approval of BB.
- While conducting foreign exchange transactions with agents of foreign principals under the currently abolished Section 18A of Foreign Exchange Regulation Act, 1947, ADs have been instructed to maintain customer-wise file of updated agency agreements, ensure timely repatriation of commissions, fees, service charges etc. to be received by agents and observe the compliance of other relevant rules and regulations. In case of foreign exchange transactions with branch/liaison/representative office/any other place of business in Bangladesh under the modified Section 18B (1) of Foreign Exchange Regulation Act, 1947, ADs will be required to maintain a list of their clients of the above mentioned offices and ensure timely reporting to BB regarding permission, encashment certificate, no objection certificate, etc of the same.
- ADs have been allowed to remit abroad up to USD 25,000 (earlier USD 20,000) on behalf of IT/Software firms to meet their bona fide expenses in a calendar year. Accordingly, the limit for issuance of International Card to a nominated official of IT/Software firm has been increased to USD 2,500 from USD 2,000 within the revised total of USD 25,000.

Green Transformation Fund (GTF)

In January 2016, Bangladesh Bank established a revolving fund titled "Green Transformation Fund" for an amount of USD 200 million to facilitate the relevant export oriented industries to transform their conventional production systems ecologically friendly and energy efficient to meet the current requirement of global Environmental and Social (E&S) safeguards compliance standards. The GTF is intended to facilitate finance to import capital machineries and other equipments/inputs complying environment-friendly/green attributes such as use of water efficiently in wet processing, water conservation and management, waste management, resource efficiency and recycling, renewable energy, energy efficiency, heat and temperature management, air ventilation and

circulation efficiency, work environment improvement initiatives and other sectors to be specified by Bangladesh Bank from time to time.

10.3 DEVELOPMENTS IN SMALL AND MEDIUM ENTERPRISE (SME) FINANCING

Bangladesh Bank has issued a revised master circular on 'SME financing' to make the financing more inclusive and entrepreneur friendly. The circular incorporated some changes and modifications, for example, financing under group lending scheme to SME entrepreneurs in the former enclaves, keeping interest rate spread on SME financing within 5%, increase the ratio of SME loan to total outstanding loans and advances from 20% to 30% within 5 years, targeting at least 50% of total SME loan for cottage, micro and small entrepreneurs, making the loan disbursement procedure fast and simple according to the ERM (Environmental Risk Management) guidelines.

In order to motivate women entrepreneurs in productive investments, the operating guidelines for the 'Two Step Loan (TSL)' fund of JICA assisted 'Financial Sector Project for the Development of Small and Medium Sized Enterprises (FSPDSME)' has been amended allowing 100 percent refinance/pre-finance to women led enterprises at preferential interest rate (bank rate + maximum 5 percent) in line with the current women entrepreneurship development strategy of BB.

A separate loan/investment application form in Bengali for cottage, micro and small entrepreneurs has been introduced so that an applicant can easily apply for loan to banks/financial institutions.

An 'Operating Guideline' has been developed to provide TSL fund for refinance or pre-finance under JICA assisted 'Urban Building Safety Project to strengthen the building safety of RMG factories' for retrofitting, rebuilding, relocation and fire safety measures.

Bangladesh Bank has extended refinance facility to new entrepreneurs for the certified young trainees of several government approved capacity building projects monitored by Bangladesh Bank.

10.4 DEVELOPMENTS IN PAYMENT SYSTEMS

Bangladesh Bank has advised the scheduled banks to take some initiatives to ensure security in card based electronic transactions through ATM, POS and e-Payment Gateway. Banks were also advised to take a number of precautionary measures, such as maintaining ceaseless connection of ATM and POS network, ensuring security and constant supply of money in ATM booths, sending instant SMS alert against a transaction, providing early message regarding any cessation of POS services, etc. in order to ensure cyber security in the financial sector.

10.5 DEVELOPMENTS IN DEBT MANAGEMENT

Floating Rate Notes

Bangladesh Bank has decided to issue 'floating rate notes (FRN)' in order to diversify the bond market. In this connection, BB has already published 91 days Bangladesh Compounded Rate (BCR) on daily basis. A draft notification and manual for the issuance of FRN has already been sent to the Ministry of Finance for approval.

Introduction of 7- and 14- day Bangladesh Bank Bills

In addition to the existing 30-day BB bill, Bangladesh Bank has introduced two more BB bills, 7- and 14-day bills for effective implementation of monetary policy keeping reserve money in the desired level and liquidity management more effective. Subsequently, the auctions of 7-, 14- and 30-day BB bills would take place on every working day starting from April 06, 2016.

Issuance of 14-day Treasury Bill

On behalf of the government, BB has introduced a shorter maturity (14-day) Treasury Bill for the management of short term cash mismatch. The features of the bill is alike other Treasury Bills in the market.

Online bidding of Islamic Bond

Bangladesh Bank has introduced Islamic Bond System (IBS) to facilitate investment on Bangladesh Government Islamic Investment Bond (BGIIB) which includes the scope of online bidding in Islamic bond auction, issuance, principal payment on maturity, profit distribution and fund investment.

10.6 DEVELOPMENT OF FINANCIAL INCLUSION PROCESS

The initiative of opening accounts of farmers, students, street urchins and working children aims to grow a saving attitude among stated population segment, to protect their hard-earned money and to prevent their derailment into a permanent underclass. These activities will help broadening the financial inclusion process of the economy. The number of accounts of different groups such as farmers, students, street urchins increased in 2016. In December 2016 the number of farmers' accounts (of Tk.10) increased to 90,43,589 from 89,33,944 in December 2015. Similarly, the number of school banking accounts increased to 12,57,370 from 10,34,954 and the number of street urchins (street children) and working children accounts increased to 3725 from 3018 during the same period.

10.7 AGRICULTURAL SECTOR FINANCING INITIATIVES

Agriculture sector plays an important role in Bangladesh economy. Bangladesh Bank facilitates policy supports including various refinance schemes for development of the sector. A total of BDT 18,823.45 crore was disbursed by the banks in Bangladesh during the calendar year 2016. Of that, public sector banks (both commercial and specialized) disbursed BDT 8,727.10 crore and private sector banks (both domestic and foreign) disbursed BDT 10,096.35 crore. Bangladesh Bank declared the latest agricultural and rural credit policy and program on 31st July 2016 targeting a total loan disbursement of BDT 17,550 crore by the banks for the FY 2016-17. The amount is 7.01 percent higher than the previous year's (2015-16) target of BDT 16,400 crore.

Bangladesh Bank has taken various policy initiatives for providing loan facilities to the farmers in order to expedite the development of the rural economy. The developments in 2016 are as follows:

Special credit program for small and marginal farmers

Bangladesh Bank has launched a special credit program with the objective to improve the productivity of the small and marginal farmers and diversification of the agricultural sector. Japan International Cooperation Agency (JICA) is financing the project. Under the program, a total fund of BDT 750 crore will be disbursed to the farmers through 13 micro finance institutions (MFIs). Bangladesh Bank disbursed BDT 201.82 crore in 2016 to the designated MFIs for facilitating credit to the target group of farmers.

Credit for Buffalo rearing

Considering the importance of livestock development, Bangladesh Bank instructed all scheduled banks vide ACD circular letter number-01, dated 5 January 2016 to finance Buffalo rearing under the Agricultural and Rural credit policy and program. It is notable that Buffalo farming is a profitable business and has good potential for employment generation in Bangladesh as well as to be a good source of milk and meat.

Agricultural credit for inhabitants of newly included 111 enclaves in Bangladesh

Bangladesh Bank has instructed all scheduled banks vide ACD circular letter number-02, dated 12 June 2016 to facilitate agricultural loan to the inhabitants of newly included 111 enclaves in Bangladesh following the annual agricultural and rural credit policy and program 2016-17. In order to ease the documentation procedure for loan disbursement, Bangladesh Bank has advised all banks to accept the certificate from UNO or Assistant Commissioner (land) in case of identification of land ownership until the existing land ownership problems resolve.

Agricultural credit disbursement through agent banking booth

Bangladesh Bank has soften the rule for agriculture loan disbursement procedure allowing the agent banking booth to accept loan applications, preliminary evaluation of the loan proposals, disbursement of agricultural and rural credit and also recovery of loan installment from clients as per ACD circular number- 02 dated 31 July 2016. BB has allowed all banks, having approval for agent banking operation according to the 'Guidelines on agent banking for the banks', to process and disburse agricultural loans through their agent banking booths under the agricultural and rural credit policy and programs 2016-17.

Refinance scheme for milk production

Bangladesh Bank has created a revolving refinance fund of BDT 200 crore to facilitate loan for milk production. The scheme aims at making the country self-reliant by boosting milk production and thus ensuring nutritional security and saving foreign currency as well. The loan will be collateral free and at five (05) percent interest rate. BB instructed selected banks and financial institutions in this regard vide ACD circular letter no. 03 dated 18 August 2016.

10.8 MONETARY POLICY STANCE

Bangladesh Bank announced two half-yearly monetary policy stances, (MPS H1,January-June and MPS H2, July-December) in the calendar year 2016. The main objective of such policy stances is to deliver an upfront indication on central bank's upcoming policy strategies on interest rate, domestic credit flow and price level (i.e., inflation) for the projected period. In 2016, BB followed a cautious monetary policy targeting a moderate level of inflation rate, quality credit expansion, inclusive and environmentally sustainable growth. Domestic credit growth was projected to grow by 16.4 percent in the MPS H2.

In order to stimulate both public and private sector investment, repo and reverse repo rates were lowered by 50 basis points fixing repo to 6.75 percent and reverse repo to 4.75 percent from 7.25 percent and 5.25 percent respectively (MPD circular number-01 dated 14 January 2016) with an expectation of lower market interest rate conducive to investment. The MPS H2 continued the same interest rate policy. As per MPS H2, the average annual CPI inflation eased to 5.9 percent in June 2016 which would further decline to 5.8 percent by December 2016. The exchange rate has remained competitive and the external par value of BDT remains stable.

Chapter 11

MICROFINANCE INSTITUTIONS (MFIs)

The Microfinance Institutions (MFIs) play a significant role in Bangladesh in alleviating poverty of rural poor households. The sector indeed constitutes lion share of rural financial market. Major players of this sector are Grameen Bank, specialised government Micro-Finance Organisations and Non-Government Organisations those conduct microcredit programs. In Bangladesh, MFIs are a good source of financial support for the marginal people especially for the rural ultra poor in order to make them self-reliant. MFIs are contributing in employment generation through various credit schemes and social businesses. They are also building savings awareness among the poor and creating income generating avenues. The number of borrowers of the MFIs has reached approximately 23.1 million in FY16. Along with conventional microcredit, microenterprise loans, loans for the ultra poor, agricultural loans, seasonal loans, and loans for disaster management etc. are also extended by MFIs in different structures. Loan amount up to BDT 50,000 are generally recognized as microcredit and, beyond this amount are considered as microenterprise loans. The sector is growing under the surveillance of Microcredit Regulatory Authority (MRA) and continuous support of the government. Like FY15, the microfinance sector showed strong and resilient growth in FY16.

11.1 OUTREACH OF MICROFINANCE SECTOR

Access to finance with less complexity and no or less collateral requirements of MFIs have been crucial in extending credit to the grass root level. In FY16, it provided financial services to 27.8 million members (an increase of 6.9 percent from FY15) with 1,24,992 employees (an increase of 12.8 percent from FY15) through 16,282 branches (an increase of 4.3 percent from FY15) across the country.

TABLE 11.1: OUTREACH OF MICROFINANCE SERVICES

		2011-12	2012-13	2013-14	2014-15	2015-16	Growth (in %, based on 2014-15)
1	Total Number of Licensed Institutions	590	649	742	753	759	0.8
2	Number of Branches	17977	14674	14730	15609	16282	4.3
3	Number of Employees	108954	110734	109628	110781	124992	12.8
4	Number of Members(in million)	24.6	24.6	25.1	26.0	27.8	6.9
5	Number of Borrowers (in million)	19.4	19.0	19.4	20.8	23.1	11.0
6	Outstanding loan disbursed by licensed institutions (in billion)	211.4	239.8	276.9	353.8	458.2	29.5
7	Outstanding Loan Disbursed by Top 20 Institutions (in billion)	161.4	191.3	212.0	278.0	348.0	25.2
8	Outstanding Savings Balance of the licensed institutions (in billion)	75.3	94.0	107.0	136.0	172.0	26.5
9	Outstanding Savings Balance Held in Top 20 Institutions (in billion)	57.4	69.6	88.0	107.0	136.0	27.1

Source: Microcredit Regulatory Authority

Chart 11.2 shows that in the reporting period (FY16), MFIs' net disbursement as loan facilities (gross disbursement less recovery) and total savings services were BDT 458.2 billion (29.5 percent higher than FY15) and 172.0 billion (26.5 higher than FY15) respectively. This sector also experienced an

upward trend in terms of loan outstanding per borrower/per branch, savings per client/per branch in this period. However, failure to meet regulatory requirements led to the cancellation of license of some MFIs during this period.

At the end of FY16, the total number of MFIs stood at 759, 0.8 percent higher than that of FY15. Simultaneously, 56 MFIs had to shut down their business due to noncompliance of regulatory requirement. Table 11.1 and Chart 11.1 show the total number of MFIs have been increased by 169 despite cancellation of licenses of 157 institutions during the last five years (FY12 to FY16). The members of this sector have also been increased by 3.2 million during the same period. In FY16, total loans disbursed and total savings accumulated by MFIs have been increased by more than double compared to FY12. In FY12, the total amount of loans and savings were 211.4 billion and 75.3 billion respectively.

CHART 11.1: NUMBER OF LICENSED INSTITUTIONS, BRANCHES, EMPLOYEES AND MEMBERS

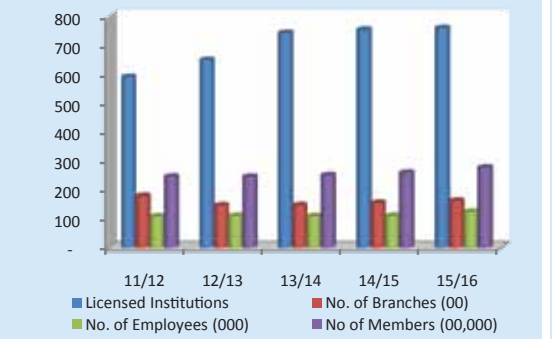
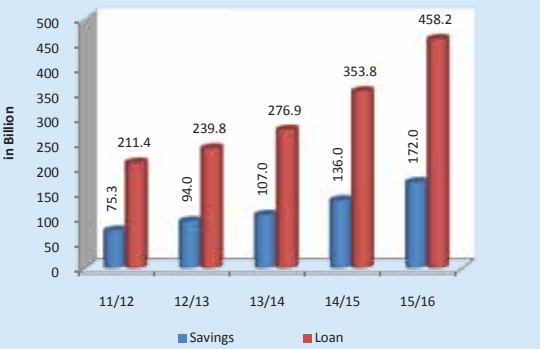


CHART 11.2: SAVINGS AND LOAN SCENARIO OF MFIs SECTOR



Source: Microcredit Regulatory Authority, calculation: FSD,BB

Chart 11.3 illustrates that both the number of borrowers and MFIs have steadily increased over the time. In particular, the number of borrowers has increased by 2.3 million whereas the number of members has increased by 1.8 million in FY16 compared to the FY15. These indicators show that access to micro finance by the lower segment of the society is consistently improving.

CHART 11.3: TREND OF SECTOR OUTREACH

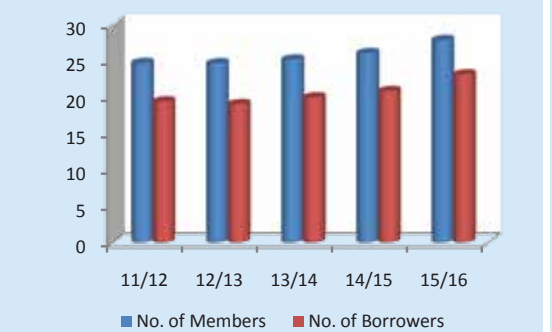
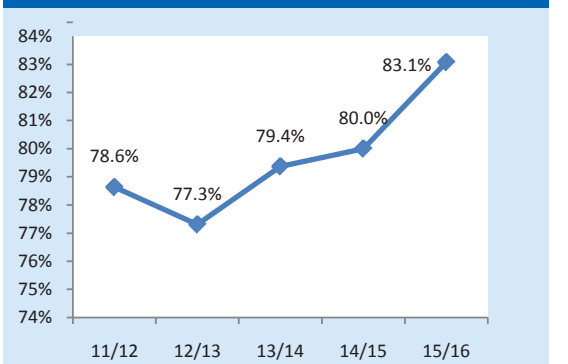


CHART 11.4: BORROWERS TO MEMBERS RATIO



Source: Microcredit Regulatory Authority, calculation: FSD,BB

The current borrowers to members ratio has reached at 83.1 percent (Chart 11.4), which is 3.1 percent higher than that of the previous reporting period due to increase of members availing loan facilities from MFIs. This upward trend indicates that more members are actively engaged in local economic activities through their access to microcredit facilities.

The average loans and savings per institution (Chart 11.5) show increasing trend over the last five years. Currently, the average loan portfolio and savings held by each institution are BDT 603.7 million and BDT 226.6 million respectively. The average loans and savings per institution increased by 28.5 percent and 25.5 percent respectively during FY16.

CHART 11.5: AVERAGE LOANS AND SAVINGS PER INSTITUTION

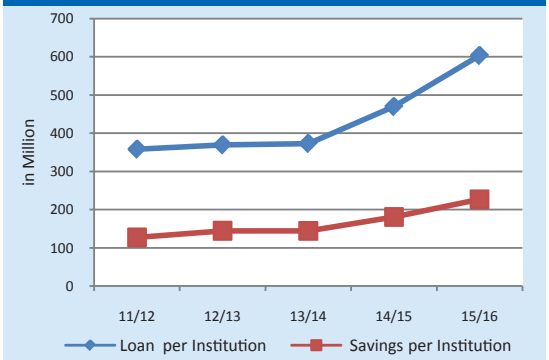
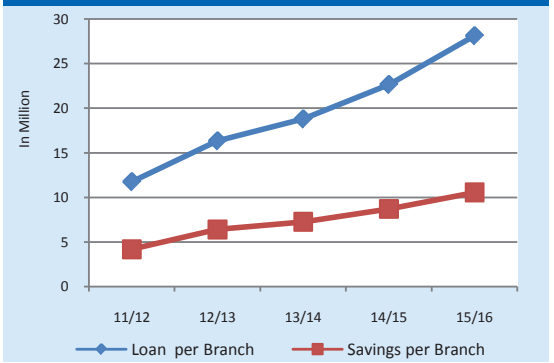


CHART 11.6: AVERAGE LOANS AND SAVINGS PER BRANCH



Source: Microcredit Regulatory Authority, calculation: FSD,BB

Notably, the average loans and savings per branch (Chart 11.6) were BDT 28.1 million (24.2 percent higher than that of FY15) and BDT 10.6 million (21.2 percent higher than that of FY15) respectively.

Chart 11.7 depicts an upward trend in average loan size and savings per borrower/member in the last couple of years. In FY16, the average loan per borrower was 16.7 percent higher than that of the previous period and almost double compared to FY12. Similarly, the average savings per member was 18.3 percent higher than that of the previous reporting period. At the end of FY16, the savings to loan ratio per member was 31.2 percent.

CHART 11.7: AVERAGE LOAN PER BORROWER AND SAVINGS PER MEMBER

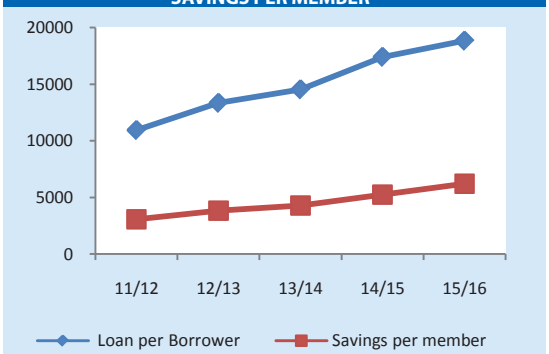
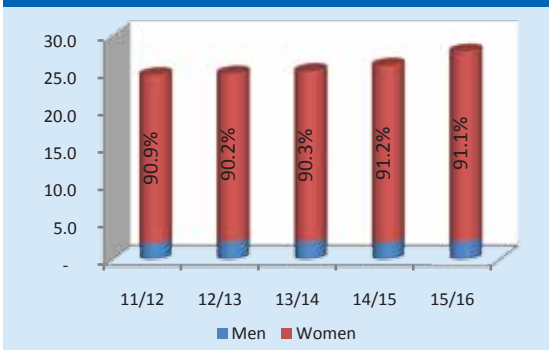


CHART 11.8: MEMBER STRUCTURE



Source: Microcredit Regulatory Authority, calculation: FSD,BB

Chart 11.8, shows that the microfinance sector is mostly dominated by female members and their numbers are increasing steadily with 7.2 percent growth in FY16 compared to FY15. The number of male members has reached to 2.5 million, increased by 8.4 percent from the FY15.

Since the major portion of the members are women, the share of women participation to credit access is higher. Currently, 21.1 million (83.5 percent) women are enjoying the credit facility out of 25.3 million female members. Besides, 2.1 (85.4 percent) million male has access to credit out of 2.5 million male members.

11.2 LOANS SCENARIO

Chart 11.9 explains the distribution of outstanding loans under different loan ranges. In FY16, loans given in the ranges of BDT up to 10,000, 10,001 to 30,000, 30,001 to 50,000, 50,001 to 100,000 and 100,001 to 300,000 and above 300,000 represented 7.0 percent, 36.3 percent, 21.3 percent, 17.5 percent, 13.2 percent and 4.7 percent of total outstanding loans of MFIs respectively. However, loans given in the ranges of BDT 10,001 to 30,000, 30,001 to 50,000, 50,001 to 100,000, 100,001 to 300,000 and above 300,000 increased by 20.0 percent, 58.8 percent and 58.7 percent, 20.2 percent and 46.9 percent respectively. However, loans extended up to BDT 10,000 decreased by 15.9 percent. The above statistics indicates a higher demand for large volume of loans in MFIs.

CHART 11.9: OUTSTANDING LOAN STRUCTURE IN FY16

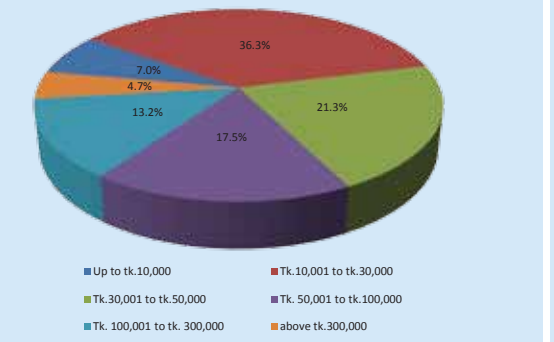
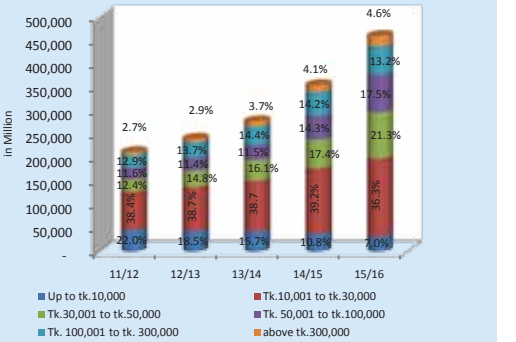


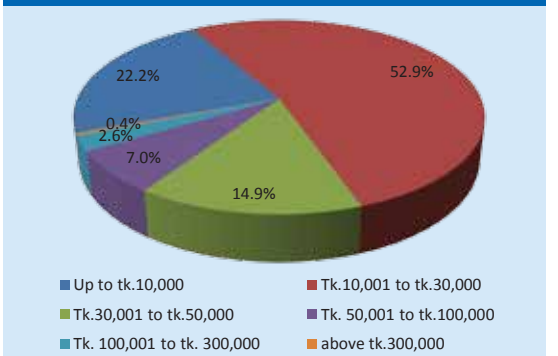
CHART 11.10: OUTSTANDING LOAN STRUCTURAL TREND



Source: Microcredit Regulatory Authority, calculation: FSD,BB

The following Chart 11.11 shows the trend of the number of members taken loans under different loan ranges.

CHART 11.11: LOAN RECIPIENTS COMPOSITION IN FY16



Source: Monetary Policy Department, BB

In FY16, 12.2 million members (13.8 percent higher than that of FY15) availed loans in ranges between Tk. 10,000 to 30,000, which constitutes 52.9 percent of the total borrowers taken loan facilities, compared with 51.0 percent in FY15. Loans taken in the range of TK. 30,001 to 50,000, 50,001 to 100,000, 100,001 to 300,000 and above 300,000 increased by 44.8 percent, 54.8 percent, 26.9 percent and 32.1 percent respectively.

Chart 11.12 signifies a downward trend in default rate during the last five years indicating the sector gradually becoming more resilient to any shock. In FY16, the non-performing loans (NPLs) ratio is 2.6 percent (40 basis points lower than FY15) which is quite low compared to the NPLs of the banking and NBFI sectors. Lower default rate of MFIs may be justified by improvement in repayment capacity of the borrowers as well as efficient monitoring of the MFIs in recovering loans.

CHART 11.12: NON-PERFORMING LOAN RATIO

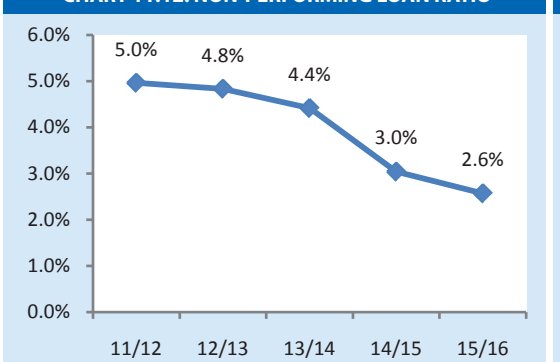
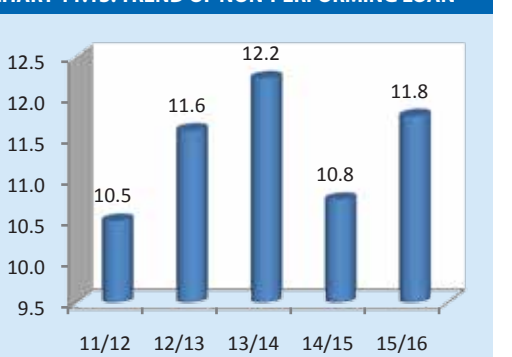


CHART 11.13: TREND OF NON-PERFORMING LOAN



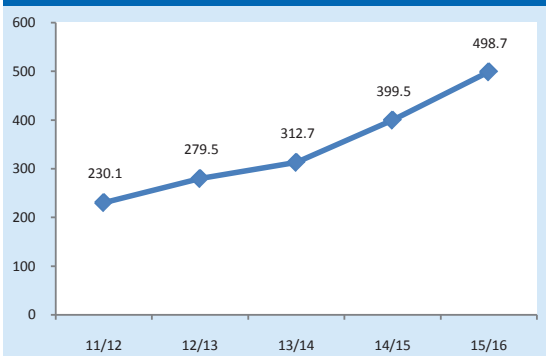
Source: Microcredit Regulatory Authority, calculation: FSD,BB

Chart 11.13 depicts trend in the non performing loans for the last 5 years. At the end of FY16, the total amount of default loan stood at BDT 11.8 billion, which is BDT 1 (one) billion higher than that of the previous FY. Indeed, in FY16, the non-performing loan ratio moves to lower percentage points than the previous FY due to, among others, higher disbursement of loans (Chart 11.12).

11.3 SOURCES OF FUNDS AND ITS COMPOSITION

Over the time, the dynamics of funding sources of MFIs has been changed as they have moved from donor-dependent to self-reliant sources. As of June 2016, they collected 33.7 percent of their total funds from capital enhancement through retained earnings. Other major sources of their capital funds are loans from banks and Palli Karma Sahayak Foundation (PKSF), donors' fund and members' savings. The contribution of foreign sources in the revolving funds (RLF) of MFIs which was 3 percent in FY12 has declined to 1.3 percent at the end of June 2016.

CHART 11.14: TOTAL FUND OF MFIS



Source: Microcredit Regulatory Authority, calculation: FSD,BB

Chart 11.14 shows that total fund of MFIs is BDT 498.7 billion during FY16 which is 24.8 percent higher than that of FY15. This expansion is largely due to significant increase in savings of the members of MFIs (26.5 percent increase from FY15), MFIs' equity (21.3 percent increase from FY15) and loans from commercial banks (38.5 percent increase from FY15).

Over the last five years, the total fund[86] has doubled from FY12. During this period, the MFIs enjoyed an average growth rate of more than 28.6 percent in total funds which is still growing significantly.

In FY16, equity, savings from members and loans from commercial banks constituted 33.7, 34.7 and 19.1 percents of total funding of the MFIs respectively. Besides, loans from PKSF, donors' fund, other loans and other sources constituted 8.2 percent, 1.0 percent, 1.3 percent and 2.0 percent respectively. It is mentionable that contribution of equity as a source of fund decreased from 34.5 percent to 33.7 percent in FY16 due to a significant increase in the volume of total fund. However, contribution of member savings increased from 34.1 percent to 34.7 percent and loans from commercial banks increased from 17.2 percent to 19.2 percent in the same period.

CHART 11.15: MAJOR SOURCES OF FUND IN FY16

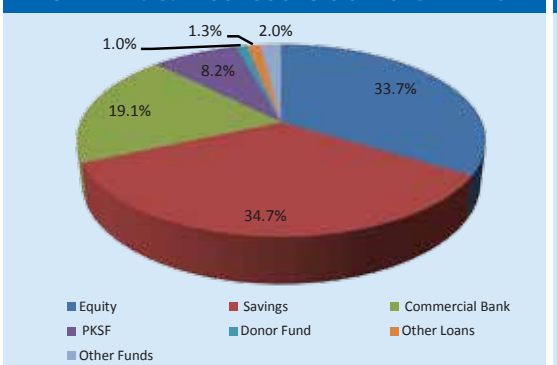
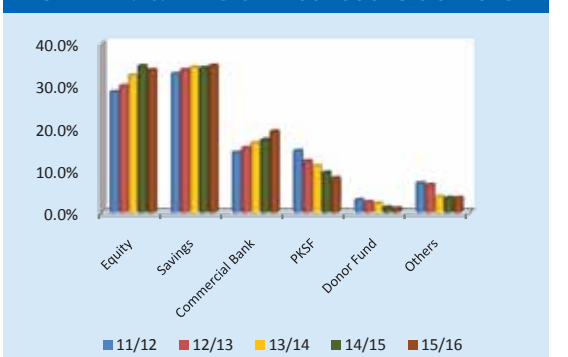


CHART 11.16: TREND OF MAJOR SOURCES OF FUND



Source: Microcredit Regulatory Authority, calculation: FSD,BB

[86]The total fund mainly comprises MFIs' own capital, savings, loans from commercial banks, loans from PKSF, donors' fund, loans from Government and others' loans.

11.4 FINANCIAL SUSTAINABILITY

Operational sustainability of Financial Institutions relies largely upon Return on Assets (ROA) and Return on Equity (ROE). In FY16, ROA and ROE of MFIs were 2.31 and 21.0 percent respectively where the corresponding figures were 2.72 and 20.2 percent in FY15 respectively. Although ROA increased by 0.8 percentage points, ROE in this period fell by 0.4 percentage points. It is mentionable that equity of MFIs increased by BDT 29,290 million during the same period. Another measure of financial sustainability is dependency ratio (donation to equity ratio), Chart 11.18, also indicates gradual improvement of MFIs sector.

CHART 11.17: OPERATIONAL SUSTAINABILITY

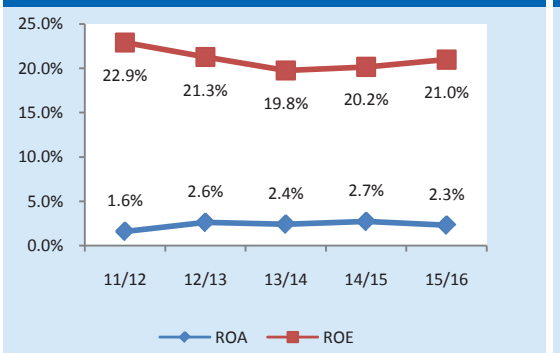
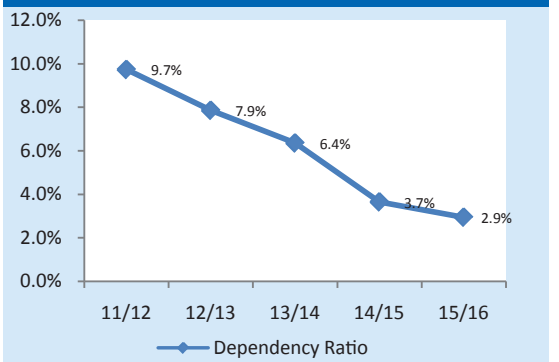


CHART 11.18: FINANCIAL DEPENDENCY

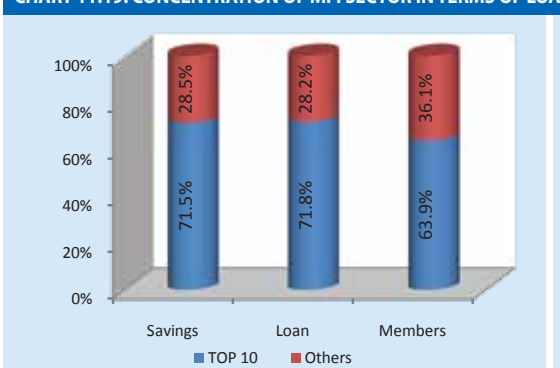


Source: Microcredit Regulatory Authority, Calculation: FSD,BB

The amount of donated funds decreased in FY16, but the amount of equity, increased through retained earnings and members' savings, are substantial, which are very important for long term sustainability of this sector as well as to withstand any financial shocks.

The MFI sector is highly concentrated in terms of loans, savings, and number of members. In FY16, the top 10 MFIs mobilized 71.5 percent of total savings, and disbursed 71.8 percent of total loans. They provided financial services to 63.9 percent of members of total MFI sector. Compared to FY15, savings concentration remains constant, while the concentration in terms of loans and members increased by 1.58 and 0.9 percentage points respectively. If top 20 MFIs are considered, savings and members' concentration fell by 3.2 and 1 percentage points respectively while concentration of disbursed loan increased by 3.4 percentage point. High degree of market concentration by the top MFIs indicates that they need to be dealt with cautiously as their poor performance may raise stability concern for the entire sector.

CHART 11.19: CONCENTRATION OF MFI SECTOR IN TERMS OF LOANS, SAVINGS AND MEMBERS HELD BY TOP 10 AND TOP 20 MFIS



Source: Microcredit Regulatory Authority, Calculation: FSD,BB

Appendix

APPENDIX I: BANKING SECTOR AGGREGATE BALANCE SHEET						
Particulars	*(Amount in Billion BDT)*				*Change (%)*	
	2013	**2014**	**2015**	**2016**	**2014 to 2015**	**2015 to 2016**
Property & Assets						
Cash in Hand (including FC)	102.7	91.1	92.3	106.5	1.3	15.4
Balance with BB & SB (including FC)	479.3	572.8	666.3	760.2	16.3	14.1
Balance with other Banks & FIs	347.9	409.7	428.9	506.1	4.7	18.0
Money at Call & Short Notice	46.5	54.2	49.6	47.8	(8.5)	(3.6)
Investments						
Government	841.2	977.6	1,136.4	1,174.6	16.2	3.4
Others	730.0	855.5	938.0	964.9	9.6	2.9
Total Investment	**1,571.2**	**1,833.1**	**2,074.4**	**2,139.5**	**13.2**	**3.1**
Loans & Advances						
Loans, CC, OD etc.	4,443.5	5,147.2	5,904.1	6,787.5	14.7	15.0
Bills purchased & Discounted	276.6	245.7	287.0	348.5	16.8	21.4
Total Loans & Advances	**4,720.1**	**5,392.9**	**6,191.1**	**7,136.0**	**14.8**	**15.3**
Fixed Assets	198.2	216.7	224.4	225.2	3.6	0.4
Other Assets	532.5	570.7	584.4	696.8	2.4	19.2
Non-banking Assets	1.7	1.9	3.3	3.7	73.1	12.1
Total Assets	**8,000.2**	**9,143.0**	**10,314.7**	**11,621.7**	**12.8**	**12.7**
Liabilities						
Borrowings from other Banks/FIs/Agents	221.6	313.0	398.7	488.7	27.4	22.6
Deposits & Other Accounts:						
Current Deposit	1,091.0	1,295.3	1,495.8	1,791.0	15.5	19.7
Savings Deposit	1,047.7	1,225.6	1,442.4	1,773.6	17.7	23.0
Fixed/Term Deposit	3,622.3	3,931.1	4,524.2	4,765.0	15.1	5.3
Inter-bank Deposit	140.4	175.6	138.6	169.9	(21.1)	22.6
Other Deposits	392.9	513.0	431.0	562.4	(16.0)	30.5
Total Deposit	**6,294.3**	**7,140.6**	**8,032.0**	**9,061.9**	**12.5**	**12.8**
Bills Payable	68.9	87.8	87.6	150.4	(0.3)	71.7
Other Liabilities	737.2	860.2	951.7	1,065.5	10.6	12.0
Total Liabilities	**7,321.9**	**8,401.7**	**9,470.0**	**10,766.6**	**12.7**	**13.7**
Capital/Shareholder's Equity	678.3	741.3	844.7	855.1	13.9	1.2
Total Liabilities & Shareholder's Equity	**8,000.2**	**9,143.0**	**10,314.7**	**11,621.7**	**12.8**	**12.7**
Off-balance Sheet Items	2,153.08	2,360.95	2,685.3	2,966.7	13.7	10.5

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX II: BANKING SECTOR AGGREGATE SHARE OF ASSETS						
						(Amount in billion BDT)
Particulars	**2014**	**% of Total Assets**	**2015**	**% of Total Assets**	**2016**	**% of Total Assets**
Property & Assets						
Cash in Hand (including FC)	91.1	1.0	92.3	0.9	106.5	0.9
Balance with BB & SB (including FC)	572.8	6.3	666.3	6.5	760.2	6.5
Balance with other Banks & FIs	409.7	4.5	428.9	4.2	506.1	4.4
Money at Call & Short Notice	54.2	0.6	49.6	0.5	47.8	0.4
Investments						
Government	977.6	10.7	1,136.4	11.0	1174.6	10.1
Others	855.5	9.4	938.0	9.1	964.8	8.3
Total Investments	**1,833.1**	**20.0**	**2,074.4**	**20.1**	**2139.4**	**18.4**
Loans & Advances						
Loans, CC, OD etc.	5,147.2	56.3	5,904.1	57.2	6787.5	58.4
Bills purchased & Discounted	245.7	2.7	287.0	2.8	348.5	3.0
Total Loans and Advances	**5,392.9**	**59.0**	**6,191.1**	**60.0**	**7136.0**	**61.4**
Fixed Assets	216.7	2.4	224.4	2.2	225.2	1.9
Other Assets	570.7	6.2	584.4	5.7	696.8	6.0
Non-banking Assets	1.9	0.0	3.3	0.0	3.7	0.0
Total Assets	**9,143.0**	**100.0**	**10,314.7**	**100.0**	**11621.7**	**100.0**

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX III: BANKING SECTOR AGGREGATE SHARE OF LIABILITIES

(Amount in billion BDT)

Particulars	2014	% of Total Liabilities	2015	% of Total Liabilities	2016	% of Total Liabilities
Liabilities						
Borrowings f rom other Banks/FIs/Agents	313.0	3.7	398.7	4.2	488.7	4.5
Deposits & Other Accounts:						
Current Deposit	1,295.3	15.4	1,495.8	15.8	1,791.0	16.6
Savings Deposit	1,225.6	14.6	1,442.4	15.2	1,773.6	16.5
Fixed/Term Deposit	3,931.1	46.8	4,524.2	47.8	4,765.0	44.3
Inter-bank Deposit	175.6	2.1	138.6	1.5	169.9	1.6
Other Deposits	513.0	6.1	431.0	4.5	562.4	5.2
Total Deposit	**7,140.6**	**85.0**	**8,032.0**	**84.8**	**9,061.9**	**84.2**
Bills Payable	87.8	1.0	87.6	0.9	150.4	1.4
Other Liabilities	860.2	10.2	951.7	10.1	1,065.5	9.9
Total Liabilities	**8,401.7**	**100.0**	**9,470.0**	**100.0**	**10,766.6**	**100.0**

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX IV: BANKING SECTOR AGGREGATE INCOME STATEMENT

Particulars	*(Amount in Billion BDT)*				*Change (%)*	
	2013	2014	2015	2016	2014 to 2015	2015 to 2016
Interest Income	618.9	633.2	636.6	639.5	0.5	**0.5**
Less: Interest Expense	486.6	493.2	490.7	460.6	(0.5)	**(6.1)**
Net Interest Income	**132.3**	**140.0**	**145.9**	**178.9**	**4.2**	**22.6**
Non-Interest/Investment Income	219.8	257.7	279.3	283.5	8.4	**1.5**
Total Income	**352.1**	**397.8**	**425.2**	**462.4**	**6.9**	**8.7**
Operating Expenses	166.0	185.1	208.3	246.4	12.5	**18.3**
Profit before Provision	**186.1**	**212.7**	**216.9**	**216**	**2.0**	**(0.4)**
Total Provision	46.1	84.3	77.0	72	(8.7)	**(6.5)**
Profit before Taxes	**140.0**	**128.4**	**139.9**	**144**	**9.0**	**2.9**
Provision for Taxation	67.4	68.4	60.7	60.9	(11.3)	**0.3**
Profit after Taxation/Net Profit	**72.5**	**60.0**	**79.2**	**83.1**	**32.0**	**4.9**

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX V: BANKING SECTOR ASSETS, DEPOSITS & NPL CONCENTRATION (CY16)				
				(Amount in billion BDT)
Assets	**Top 5 Banks**	**Other Banks**	**Top 10 Banks**	**Other Banks**
Amount (in billion BDT)	3747.9	7873.7	5319.7	6302.0
Share (%)	32.2	67.8	45.8	54.2
Deposit	**Top 5 Banks**	**Other Banks**	**Top 10 Banks**	**Other Banks**
Amoun t (in billion BDT)	3001.8	5890.2	4238.3	4653.7
Share (%)	33.8	66.2	47.7	52.3
NPL	**Top 5 Banks**	**Other Banks**	**Top 10 Banks**	**Other Banks**
Amount (in billion BDT)	321.8	299.9	409.8	211.9
Share (%)	51.8	48.2	65.9	34.1

Source: Department of Off-site Supervision & Banking Regulation and Policy Department, Bangladesh Bank.

APPENDIX VI: BANKING SECTOR LOAN LOSS PROVISIONS			
			(Amount in billion BDT)
Year	**Required Provision**	**Provision Maintained**	**Surplus/(Shortfall)**
2008	136.1	126.2	(9.9)
2009	134.7	137.8	3.1
2010	150.8	146.8	(3.9)
2011	139.3	148.9	9.6
2012	242.4	189.8	(52.6)
2013	252.4	249.8	(2.6)
2014	289.6	281.6	(8.0)
2015	308.9	266.1	(42.8)
2016	362.1	307.4	(54.7)

Source: Banking Regulation and Policy Department, Bangladesh Bank.

APPENDIX VII: BANKING SECTOR YEAR-WISE GROSS NPL RATIO & ITS COMPOSITION

(In percentage)

Year	Gross NPL to Total Loans Outstanding	Sub-Standard Loans to Gross NPL	Doubtful Loans to Gross NPL	Bad Loans to Gross NPL
2006	13.2	13.1	7.2	79.7
2007	13.2	9.8	7.5	82.7
2008	10.8	9.4	9.4	81.1
2009	9.2	12.2	8.4	79.4
2010	7.1	13.4	8.4	78.1
2011	6.2	14.8	11.5	73.8
2012	10.0	19.1	14.2	66.7
2013	8.9	11.2	10.1	78.7
2014	9.7	11.0	11.2	77.8
2015	8.8	8.9	6.5	84.6
2016	9.2	10.2	5.4	84.4

Source: Banking Regulation and Policy Department, Bangladesh Bank.

APPENDIX VIII: BANKING SECTOR NPL COMPOSITION (CY16)

(Amount in billion BDT)

Particulars	Amount	% of Gross NPL
Sub-Standard	63.6	10.2
Doubtful	33.7	5.4
Bad & Loss	524.5	84.4
Total	621.7	100.0

Source: Banking Regulation and Policy Department, Bangladesh Bank.

APPENDIX IX: BANKING SECTOR DEPOSITS BREAKDOWN EXCLUDING INTERBANK DEPOSIT (CY16)

(Amount in billion BDT)

Items	Amount	% of Total Deposit
Current deposits	1791.0	20.1
Savings deposits	1773.6	19.9
Term deposits	4765.0	53.6
Other Deposits	562.4	6.3
Total deposit	8892.0	100.0

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX X: BANKING SECTOR SELECTED RATIOS

(In percentage)

Ratio	CY12	CY13	CY14	CY15	CY16
ROA	0.6	0.9	0.7	0.8	0.7
ROE	7.8	10.7	8.1	9.4	9.7
Net Interest Margin	2.8	2.1	1.8	1.7	1.9
Interest Income to Total Assets	8.1	7.7	6.9	6.2	5.5
Net- Interest Income to Total Assets	2.2	1.7	1.5	1.5	1.5
Non-Interest Income to Total Assets	2.7	2.7	2.8	2.7	2.4
Non-interest expense to Gross Operating Income	42.0	47.1	46.5	48.6	53.3
CAR/CRAR	10.5	11.5	11.4	10.8	10.8
Gross NPL to Total Loans Outstanding	10.0	8.9	9.7	8.8	9.2
Gross NPL to Capital	74.2	59.8	67.7	60.8	74.2
Maintained Provision to Gross NPL	44.4	61.6	56.2	51.8	49.4

Source: Department of Off-site Supervision & Banking Regulation and Policy Department, Bangladesh Bank.

APPENDIX XI: BANKING SECTOR ROA & ROE

ROA (%)	Number of Banks		ROE (%)	Number of Banks	
	2015	2016		2015	2016
Up to 2.0	50	49	**Up to 5.00**	12	11
> 2.0 to 3.0	2	6	**> 5.00 to 10.00**	16	14
>3.0to 4.0	0	1	**>10.00 to 15.00**	8	21
>4.0	4	0	**>15.00**	20	10

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XII: BANKING SECTOR YEAR-WISE ADR AT END DECEMBER

(In percentage)

Year	Advance-Deposit Ratio
2012	76.6
2013	71.2
2014	71.0
2015	71.0
2016	71.9

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XIII: BANKING SECTOR ADR (CY16)	
Range	**Number of Banks**
Up to 70%	16
> 70% to 85%	29
> 85% to 90%	11
>90% to 100%	0
>100%	1
Total	57

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XIV: BANKING SECTOR LEVERAGE RATIO - SOLO BASIS (CY16)	
Range	**Number of Banks**
<3%	07
>=3% to 10%	34
> 10% to 20%	11
>20% to 30%	03
>30% to 40%	01
>40%	01
Total	57

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XV: ISLAMIC BANKS AGGREGATE BALANCE SHEET						
Particulars	***(Amount in Billion BDT)***				**Change (%) 2014 To 2015**	**Change (%) 2015 To 2016**
	2013	**2014**	**2015**	**2016**		
Property & Assets:						
Cash in Hand (including FC)	15.6	14.1	15.9	19.2	12.7	20.8
Balance with BB & SB (including FC)	102.3	124.2	151.8	187.9	22.2	23.8
Balance with other Banks & FIs	80.2	85.3	86.3	79.7	1.2	(7.6)
Money at Call & Short Notice	0.0	0.5	0.5	0.5	0.0	0
Investments						
Government	17.3	22.3	35.9	42	60.9	17.0
Others	87.7	125.3	116.5	77.9	(7.0)	(33.1)
Total Investments	**105.0**	**147.6**	**152.4**	**119.9**	**3.2**	**(21.3)**
Investments & Advances						
Investments & Advances	899.7	1,105.1	1,311.0	1,531.2	18.6	16.8
Bills Purchased & Discounted	75.5	59.9	74.0	96	23.5	29.7
Total Investments and Advances	**975.3**	**1,165**	**1,384.9**	**1,627.2**	**18.9**	**17.5**
Fixed Assets	30.7	32.2	34.8	35.3	7.9	1.4
Other Assets	50.1	63	70.3	77.2	11.6	9.8
Non-banking Assets	0.0	0.1	1.0	1	934.2	0.0
Total Assets	**1,359.0**	**1,632**	**1,897.9**	**2148**	**16.3**	**13.2**
Liabilities						
Borrowings from other Banks/FIs/Agents	29.6	26.6	47.5	74	78.6	55.8
Deposits & Other Accounts:						
Current Deposit	76.5	118	92.0	115.4	(22.0)	25.4
Savings Deposit	190.6	234.6	282.3	335.1	20.3	18.7
Fixed/Term Deposit	718.1	863.1	1,042.9	1,109.4	20.8	6.4
Other Deposit	148.5	154.8	139.7	197.4	(9.8)	41.3
Total Deposits	**1,133.6**	**1,370.5**	**1,556.8**	**1,757.3**	**13.6**	**12.9**
Bills Payable	9.3	11.2	11.2	18	0.4	60.7
Other Liabilities	83.6	108.7	153.5	136.6	41.2	(11.0)
Total Liabilities	**1,256.2**	**1,517**	**1,769.1**	**2,013.6**	**16.6**	**13.8**
Capital/Shareholder's Equity	**102.8**	**115**	**128.8**	**134.5**	**12.0**	**4.4**
Total Liabilities & Shareholder's Equity	**1,359.0**	**1,632**	**1,897.9**	**2,148.1**	**16.3**	**13.2**
Off-balance Sheet Items	**289.1**	**320.8**	**369.2**	**425.1**	**15.1**	**15.1**

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XVI: ISLAMIC BANKS AGGREGATE INCOME STATEMENT						
Particulars	(Amount in billion BDT)				Change (%) in 2015	Change (%) in 2016
	2013	2014	2015	2016		
Profit Income	133.0	142.5	146.8	156.9	3.0	6.9
Less: Profit Expenses	94.5	96.8	95.9	94.1	(1.0)	(1.9)
Net Profit Income	**38.5**	**45.7**	**50.9**	**62.8**	**11.4**	**23.4**
Non-Profit/Investment Income	17.7	19.8	19.0	20.2	(4.3)	6.3
Total Income	**56.2**	**65.5**	**69.9**	**83**	**6.6**	**18.7**
Operating Expenses	24.8	28.2	33.3	40.7	18.2	22.2
Profit before Provision	**31.4**	**36.6**	**36.52**	**42.2**	**(0.2)**	**15.6**
Total Provision	7.6	11.2	9.3	8.8	(17.1)	(5.4)
Profit before Taxes	**23.9**	**25.4**	**27.2**	**33.4**	**7.2**	**22.8**
Provision for Taxation	11.8	12.1	12.3	15.8	1.9	28.5
Profit after Taxation/Net Profit	**12.1**	**13.3**	**14.9**	**17.6**	**12.0**	**18.1**

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XVII: SHARE OF ISLAMIC BANKS IN THE BANKING SECTOR (CY16)			
			(Amount in billion BDT)
Particulars	**All Banks**	**Islamic Banks**	**Share of Islamic Banks**
Property & Assets			
Cash in hand	106.5	19.2	18.0
Due from BB & other banks/FIs	1266.2	267.6	21.1
Investments in securities	2139.4	119.9	5.6
Investments (Loans & advances)	6787.5	1531.2	22.6
Other Assets	696.8	77.2	11.1
Total Assets	**11621.7**	**2148**	**18.5**
Liabilities			
Due to financial institutions	488.7	74	15.1
Total deposits	9061.9	1785.0	19.7
Bills Payable	150.4	18	12.0
Other liabilities	1065.5	136.6	12.8
Total Liabilities	**10766.6**	**2013.6**	**18.7**
Capital/Shareholder's Equity	855.1	134.5	15.7
Total Liabilities & Shareholder's Equity	**11621.7**	**2148.1**	**18.5**
Off-balance Sheet Items	2966.7	425.1	14.3

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XVIII: SELECTED RATIOS OF ISLAMIC BANKS AND THE BANKING SECTOR (CY16)

(Amount in billion BDT)

Ratio	Overall Banking Sector	Islamic Banking Sector
ROA	0.7	0.8
ROE	9.7	13.1
Net Profit Margin	1.9	3.6
Profit (Interest) Income to Total Assets	5.5	7.3
Net-profit (Interest) Income to Total Assets	1.5	2.9
Non-Profit (Interest) Income to Total Assets	2.4	0.9
Investment (Advance)-Deposit Ratio	71.9	86.3
CRAR	10.8	12.7*
Classified Investment (Advances) to Investments	9.2	4.3
Classified Investment (Advances) to Capital	72.7	49.7

**Data on ICB Islami Bank Ltd. is excluded for Islamic Banking Sector*
Source: Department of Off-site Supervision & Banking Regulation and Policy Department, Bangladesh Bank.

APPENDIX XIX: ISLAMIC BANKS' CRAR (CY16)

CRAR	Number of Islamic Banks
Below 10.00%	1
10.00% to 11.00%	6
>11.00%	1
Total	8

Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XX: ISLAMIC BANKING SECTOR INVESTMENT (ADVANCE)-DEPOSIT RATIO (AS OF 31.12.2016)

(Amount in billion BDT)

Items	Islamic Banks	Islamic Branches/Windows	Islamic Banking Sector
Deposits (Excluding Interbank)	1770.7	86.6	1857.3
Investments* (Excluding Interbank)	1565.0	82.0	1647.0
IDR	86.3	84.2	86.2

**Credits are termed as investments in Islamic Banking.*
Source: Department of Off-site Supervision, Bangladesh Bank.

APPENDIX XXI: OVERSEAS BRANCHES AGGREGATE SHARE OF ASSETS & LIABILITIES

(Amount in million USD)

Assets	CY15	% of Total Assets	CY16	% of Total Assets	Liabilities	CY15	% of Total Liabilities	CY16	% of Total Liabilities
Cash & Balance from Central Banks	99.6	24.9%	124.0	24.6%	Customer Deposits	242.0	60.4%	280.2	55.6%
Balance with other Banks & FIs	114.9	28.7%	191.4	37.9%	Dues to head office & branches abroad & other liabilities	111.5	27.6%	175.8	34.9%
Loans & Advances	136.7	34.1%	152.0	30.2%	Total Liabilities	353.5	88.0%	456.0	90.5%
Property & Equipments and other assets	49.2	12.3%	36.6	7.3%	Capital/ Equity	46.9	12.0%	48.0	9.5%
Total Assets	400.4	100.0%	504.0	100.0%	**Total Liabilities & Equities**	400.4	100.0%	504.0	100.0%

Source: Scheduled Banks of Bangladesh

APPENDIX XXII: STRESSED ADVANCES RATIO IN DIFFERENT SEGMENTS

(Amount in Billion BDT)

Sl No.	Segments	Year 2016				Gross NPL to Total Advances (1)	Rescheduled (STD) & Restructured Advances to Total Advances (2)	Stressed Advances Ratio (3) = (1) + (2)
		Unclassified Advances	Gross NPL	Total Advances	Rescheduled (STD) & Restructured Advances			
01	Large	2,676.79	165.87	2,842.66	227.01	5.8%	8.0%	13.8%
02	Medium	922.88	128.55	1,051.43	136.81	12.2%	13.0%	25.2%
03	Small	603.46	80.20	683.66	36.40	11.7%	5.3%	17.1%
04	Micro & Cottage	206.00	34.50	240.50	45.29	14.3%	18.8%	33.2%
05	Others	1,708.36	212.60	1,920.96	93.53	11.1%	4.9%	15.9%
	Total	6,117.48	621.72	6,739.20	539.04	9.2%	8.0%	17.2%

Source: Scheduled Banks of Bangladesh

APPENDIX XXIII: YEAR-WISE STRESSED ADVANCES IN BANKING SECTOR

(In percentage)

Year	Gross NPL to Total Advances	Rescheduled (STD) & Restructured* Advances to Total Advances	Stressed Advances
2012	10.0	3.7	13.7
2013	8.7	4.8	13.5
2014	9.7	3.4	13.1
2015	8.8	7.3	16.1
2016	9.2	8.0	17.2

** Only loans restructured as per BRPD circular no. 04, dated 29.01.2015 has been incorporated.*
Source: Scheduled Banks of Bangladesh

APPENDIX XXIV: STRESSED ADVANCE CONCENTRATION IN BANKING SECTOR (CY16)

Stressed Advances	Top 5 Banks	Other Banks	Top 10 Banks	Other Banks
Amount (in billions)	536.51	624.26	772.27	388.49
Share (in percentage)	46.2	53.8	66.5	33.5

Source: Scheduled Banks of Bangladesh

APPENDIX XXV: FIs' AGGREGATE BALANCE SHEET

(Amount in Billion BDT

Items	CY12	CY13	CY14	CY15	CY16
Property & Assets:					
Cash in hand	0.2	0.04	0.02	0.01	0.02
Balance with other banks and FIs	31.7	46.9	85.0	94.7	87.6
Money at call & short notice	0.7	1.0	1.2	0.1	1.4
Investment in government securities	2.4	4.3	2.2	0.8	1.5
Other investments	13.5	10.5	16.2	19.4	30.1
Total loans & leases	247.4	315.1	371.0	448.5	534.2
Fixed assets	5.4	5.7	6.0	7.0	10.3
Other assets	25.4	50.0	38.3	39.9	49.3
Non-financial assets	-	2.3	0.2	0.8	0.7
Total assets	**326.7**	**435.8**	**520.1**	**611.1**	**715.1**
Liabilities & Equity:					
Borrowing from other banks and FIs	84.8	108.1	127.9	132.4	158.6
Deposits	145.2	197.6	245.7	318.1	383.7
Other liabilities	37.1	43.6	50.7	60.3	65.9
Total liabilities	**267.1**	**349.3**	**424.3**	**510.8**	**608.2**
Shareholders' equity (capital)	59.6	86.5	95.8	100.3	106.9
Total liabilities and shareholders' equity	**326.7**	**435.8**	**520.1**	**611.1**	**715.1**

Source: Department of Financial Institutions and Markets, Bangladesh Bank

APPENDIX XXVI: FIs' AGGREGATE INCOME STATEMENT

(Amount in Billion BDT)

Items	CY12	CY13	CY14	CY15	CY16
Interest income	35.0	50.5	50.9	57.4	55.1
Less: Interest expense	(25.3)	(33.9)	(33.8)	(37.4)	(39.2)
Net interest income (Net II)	9.7	16.6	17.1	20.0	15.9
Investment income	2.3	1.6	1.2	2.0	1.8
Add: Commission, exchange and brokerage	0.2	0.8	0.3	0.3	0.2
Add: Other operating income	2.7	2.5	5.2	5.6	3.9
Non-interest income (Non II)	5.2	4.9	6.7	7.9	5.9
Total operating income (Net II + Non II)	14.9	21.5	23.8	27.9	21.8
Operating expenses	(4.0)	(5.4)	(5.5)	(6.6)	(7.7)
Profit before provisions	10.9	16.1	18.3	21.3	14.1
Total provisions	(1.9)	(3.4)	(2.6)	(4.6)	(3.7)
Profit before taxes	9.0	12.7	15.7	16.7	10.4
Tax provisions	(2.9)	(4.7)	(6.2)	(7.0)	(5.7)
Net profit after taxes	6.1	8.0	9.5	9.7	4.7

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXVII: FIs' LIQUIDITY POSITION

(Amount in Billion BDT)

Items	End-Dec. 2012	End-Dec. 2013	End-Dec. 2014	End-Dec. 2015	End-Dec. 2016
Total liabilities	129.6	158.8	242.9	289.6	342.8
Total term deposits	99.4	127.0	155.5	191.3	232.2
Industry CRR (required)	2.5	3.2	3.9	4.8	5.8
Industry CRR (maintained)	2.9	3.7	8.8	5.2	6.2
Industry SLR (required)	6.5	7.9	12.1	14.5	15.5
Industry SLR (maintained)	19.3	24.8	65.6	68.0	64.9

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXVIII: FIs' OTHER INFORMATION

(Amount in Billion BDT)

Items	CY12	CY13	CY14	CY15	CY16
Tier-I Capital	57.0	67.6	98.0	94.6	100.0
Tier-II Capital	4.9	5.3	5.3	6.7	9.9
Total Capital	61.9	72.9	103.3	101.3	109.9
Classified loans & leases	13.7	17.7	19.7	40.0	39.2
Loan loss provisions (required)	6.9	8.6	10.0	19.8	25.2
Loan loss provisions (maintained)	7.7	9.5	11.0	14.2	19.8
Loan loss provisions (surplus/shortfall)	0.8	0.9	1.0	(5.6)	(5.4)
No. of government-owned FIs	3	3	3	3	3
No. of local FIs	18	18	18	19	20
No. of FIs under foreign joint venture	10	10	10	10	10
Total no. of FIs	31	31	31	32	33
No. of branches	169	176	198	211	225

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXIX: FIs' SUMMARY PERFORMANCE INDICATORS

(Amount in Billion BDT)

Indicators	CY12	CY13	CY14	CY15	CY16
Profitability & Efficiency:					
Return on Assets (ROA)	1.9	1.8	1.8	1.6	0.7
Return on Equity (ROE)	10.2	9.2	9.9	9.8	4.4
Net Interest Margin (NIM)	3.9	5.2	4.6	4.4	2.4
Asset Quality:					
Classified Loans & Leases to Total Loans & Leases	5.5	5.6	5.3	8.9	7.3
Capital Adequacy:					
Capital to Risk-Weighted Assets	19.4	18.3	21.2	18.7	18.4
Liquidity:					
SLR maintained	14.9	15.6	27.0	23.5	19.0
CRR maintained	2.9	6.2	5.7	2.7	2.7

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXX: FIs' SECTOR-WISE DISTRIBUTION OF LOANS AND LEASES

(In percentage)

Major Sectors	CY12	CY13	CY14	CY15	CY16
Sector-wise Distribution of Loans & Leases to Total Loans & Leases:					
Trade & Commerce	11.3	14.5	16.4	17.3	17.1
Housing	17.6	12.2	17.5	17.7	16.8
Power, Gas, Water and Sanitary Service	2.0	12.1	10.5	9.8	9.5
Textile	5.4	4.8	4.4	4.7	4.9
Iron, Steel and Engineering	3.5	4.4	4.7	5.2	5.4
Transport & Aviation	4.3	4.4	4.7	3.9	4.2
Food Production and Processing Industry	3.5	4.1	4.1	4.2	4.8
Garments & Knitwear	4.5	4.0	4.0	4.1	4.5
Margin Loan	4.5	3.9	3.3	3.3	2.4
Merchant Banking	5.1	3.6	4.1	3.7	4.4
Agriculture	1.4	1.4	1.9	1.8	2.0
Others (including other sectors with minor share)	36.9	30.6	24.4	24.3	30.4

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXXI: INTERBANK REPO VOLUME, PRICES AND CALL MONEY RATE

Month	Interbank Repo Volume (In Billion BDT)	Interbank Repo Rate (%)	Call Money Rate (%)
January 2016	403.8	3.4	3.90
February 2016	430.2	3.2	3.73
March 2016	489.5	3.0	3.68
April 2016	351.5	3.1	3.68
May 2016	319.0	3.1	3.67
June 2016	309.1	3.2	3.70
July 2016	179.9	3.3	3.68
August 2016	179.5	3.1	3.65
September 2016	235.3	3.2	3.64
October 2016	116.9	3.1	3.52
November 2016	112.5	3.0	3.56
December 2016	151.1	3.1	3.62

Source: Bangladesh Bank Website, Economic Data.

APPENDIX XXXII: BB BILL AND TREASURY SECURITIES YIELD			
Securities	**December 2015**	**June 2016**	**December 2016**
30 Day BB Bill	3.4%	3.0%	3.0%
91 Day T-Bill	2.9%	4.0%	3.0%
182 Day T-Bill	3.3%	4.7%	3.2%
364 Day T-Bill	4.1%	5.2%	3.8%
2 Years T-Bond	4.9%	6.0%	4.4%
5 Years T-Bond	5.0%	6.5%	5.9%
10 Years T-Bond	7.2%	7.3%	6.3%
15 Years T-Bond	7.9%	8.0%	7.6%
20 Years T-Bond	9.0%	8.4%	7.9%

Source: Major Economic Indicators, February 2017 Issue, Bangladesh Bank.

APPENDIX XXXIII: EQUITY MARKET DEVELOPMENT			
Month	**DSEX Index**	**Market Capitalization (In Billion BDT)**	**Market P/E**
March 2016	4357.5	3036.4	14.3
June 2016	4507.6	3185.7	14.6
September 2016	4695.2	3281.9	15.1
December 2016	5036.1	3412.4	14.3

Source: Dhaka Stock Exchange website and Monthly Economic Trends, BB

APPENDIX XXXIV: AUTOMATED CHEQUE CLEARING OPERATIONS						
	CY14		**CY15**		**CY16**	
Category	**Number (in thousands)**	**Amount in Billion BDT**	**Number (in thousands)**	**Amount in Billion BDT**	**Number (in thousands)**	**Amount in Billion BDT**
High Value (HV)	1,610	8,812.3	1,808.4	9,794.5	1,987.0	11,479.5
Regular Value (RV)	23,505	5,497.4	21,019.4	5,707.3	20,215.5	6,518.3

Source: Payment Systems Department, Bangladesh Bank.

APPENDIX XXXV: VOLUME OF ELECTRONIC BANKING TRANSACTIONS				
				(Amount in Billion BDT)
Year	**Using ATM**	**Using Debit Card**	**Using Credit Card**	**Internet Banking**
2014	685.9	805.9	140.8	217.3
2015	914.2	960.9	152.6	247.6
2016	1107.3	1179.0	192.1	307.5

Source: Statistics Department, Bangladesh Bank.

APPENDIX XXXVI: NUMBER OF BANKS PROVIDING ELECTRONIC BANKING SERVICES			
Year	**Internet Banking**	**Credit Card**	**ATM/Debit Card**
2014	27	28	41
2015	30	34	50
2016	41	37	50

Source: Statistics Department, Bangladesh Bank.

APPENDIX XXXVII: COMPARATIVE PICTURE OF MOBILE FINANCIAL SERVICES (MFS) IN LAST 3 YEARS			
Particulars	**2014**	**2015**	**2016**
Number of agents	540,984	561,189	710,026
Number of registered clients (in millions)	25.2	31.8	41.0
Number of active accounts (in millions)	12.1	13.2	15.8
Number of total transactions (in million BDT)	589.5	1,166.0	1,473.2
Volume of total transaction (in billion BDT)	1,031.5	1,577.7	2,346.7

Source: Payment Systems Department, Bangladesh Bank.

APPENDIX XXXVIII: EXTERNAL CREDIT ASSESSMENT INSTITUTIONS (ECAIS)			
Sl. No.	**Rating Companies**	**Subsidiary/Technical Partner of**	**Date of Issuance of Registration Certificate**
1	Credit Rating Information and Services Ltd (CRISL)	Rating Agency Malaysia Berhad	28/08/2002
2	Credit Rating Agency of Bangladesh Ltd. (CRAB)	ICRA Limited of India	24/02/2004
3	Emerging Credit Rating Ltd. (ECRL)	Malaysian Rating Corporation Berhad	22/06/2010
4	National Credit Rating Ltd. (NCRL)	The Pakistan Credit Rating Agency Ltd	22/06/2010
5	ARGUS Credit Rating Services Ltd. (ACRSL)	DP Information Group, Singapore.	21/07/2011
6	WASO Credit Rating Company (BD) Limited	Financial Intelligence Services Ltd.	15/02/2012
7	Alpha Credit Rating Limited (ACRL)	Istanbul International Rating Services Inc.	20/02/2012
8	The Bangladesh Rating Agency Limited (BDRAL)	Dun & Bradstreet South Asia Middle East Ltd.	07/03/2012

APPENDIX XXXIX: MICROCREDIT FINANCE SECTOR						
Sl No.	**Particulars**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
1	Total Number of Licensed Institution	590.0	649.0	742.0	753.0	759.0
2	Number of Branches	17,977.0	14,674.0	14,730.0	15,609.0	16,282.0
3	Number of Employees	108,954.0	110,734.0	109,628.0	110,781.0	124,992.0
4	Number of Members (in millions)	24.6	24.6	25.1	26.0	27.8
5	Number of borrowers (in millions)	19.4	19.0	19.4	20.8	23.1
6	Outstanding Loan Disbursed by Licensed institutions (in billions)	211.4	239.8[R]	276.9[R]	353.8	458.2
7	Outstanding Loan Disbursed by top 20 Institutions (in billions)	161.4	191.3	212.0	278.0	348.0
8	Outstanding Savings Balance of the Licensed institutions (in billions)	75.3	94.0	107.0	136.0	172.0
9	Outstanding Savings Balance Held in Top 20 Institutions (in billions)	57.4	69.6	88.0	107.0	136.0
10	Particulars of Outstanding Loan (in millions)					
	Up to BDT.10,000	46,498.6	44,285.2	43,493.2	38,317.5	32,213.9
	BDT.10,001 to 30,000	81,120.0	92,904.6	107,147.1	138,605.0	166,294.3
	BDT. 30,001 to 50,000	26,310.9	35,436.4	44,522.5	61,505.1	97,682.6
	BDT. 50,001 to 100,000	24,499.9	27,404.0	31,797.1	50,514.6	80,186.7
	BDT. 100,001 to 300,000	27,233.2	32,825.4	39,797.9	50,389.1	60,553.1
	Above BDT. 300,000	5,727.3	6,938.9	10,157.4	14,465.5	21,247.1
11	Total Number of Loan Recipients (in thousands)					
	Up to BDT.10,000	9,653.4	8,372.4	7,809.4	6,114.1	5,128.7
	BDT.10,001 to. 30,000	7,828.9	8,316.4	9,263.1	10,727.8	12,212.5
	BDT. 30,001 to 50,000	1,055.0	1,375.3	1,715.3	2,383.0	3,451.3
	BDT. 50,001 to 100,000	540.2	598.6	692.1	1,043.5	1,615.5
	BDT. 100,001 to 300,000	267.5	323.6	403.8	468.9	594.9
	above BDT. 300,000	30.1	31.6	45.9	63.1	83.4
12	Average Loan per Recipient	10,910.3	12,609.0	13,894.6	17,009.2	19,846.3
13	Default Loan (outstanding amount in millions)	10,496.0	11,596.0	12,231.0	10,755.0	11,771.0

Source: Microcredit Regulatory Authority.

APPENDIX XL: BANKING SECTOR MONTH-WISE DEPOSIT & ADVANCE RATE (CY16)			
			(In percentage)
Month	**Deposit Rate**	**Advance Rate**	**Spread**
Jan	6.21	11.05	4.84
Feb	6.10	10.91	4.81
Mar	5.92	10.78	4.86
Apr	5.77	10.64	4.87
May	5.67	10.57	4.90
Jun	5.54	10.39	4.85
Jul	5.48	10.32	4.84
Aug	5.44	10.24	4.80
Sep	5.39	10.15	4.76
Oct	5.33	10.03	4.70
Nov	5.29	9.94	4.65
Dec	5.22	9.93	4.71

Source: Bangladesh Bank Website.

APPENDIX XLI: LIST OF INDICATORS USED TO PREPARE CFSI				
Category	**Indicator**		**Interpretation**	**Data Source**
Banking Soundness Index (BSI)				
Capital adequacy	Capital to risk-weighted assets ratio (CRAR)	BS1	Indicates banks' strength to absorb unexpected losses. Higher CRAR implies better health of the bank concerned.	Bangladesh Bank Quarterly (BBQ)
Asset quality	Gross NPL ratio	BS2	Indicates problems with asset quality in the loan portfolio and the degree of credit risk.	BBQ
Liquidity	Credit to deposit ratio (CDR)	BS3	Indicates banks' ability to finance lending with deposits. A high ratio reflects banks are borrowing to lend thereby raising the funding cost and impacting profitability.	Monthly Economic Trends (MET)
	Weighted interest rate spread	BS4	Higher spread leads to higher liquidity as well as more probability of higher profitability. Lower spread also indicates higher market competition.	MET
Profitability	Return on assets (ROA)	BS5	Measures banks' efficiency in using its assets	Department of Off-site Supervision (DOS)
	Return on equity (ROE)	BS6	Measures banks' efficiency in using its capital	
	Net interest margin (NIM)	BS7	Higher ratio implies higher ability to absorb losses; also indicates banks with high capital requiring lesser deposits to finance lending.	
Financial Vulnerability Index (FVI)				
External Sector	Current account balance to GDP ratio	FV1	Indicates vulnerability on the external sector of the economy if the deficit widens. A large current account deficit means an equivalent capital account surplus. The funds flowing in may be contributing to the economy overheating and asset price booms by financing speculative asset purchases. It also precipitates probability of a currency depreciation.	MET & Bangladesh Bureau of Statistics (BBS)
	Ratio of M2 to foreign exchange reserves	FV2	Indicates the extent to which banking system liabilities are backed by international reserves; measures the ability to withhold external shocks and ensures the convertibility of the local currency.	MET

Category	Indicator		Interpretation	Data Source
	Real effective exchange rate (REER)	FV3	Indicates export competitiveness of an economy. If it appreciates, the competitiveness of the export sector increases.	Monetary Policy Department (MPD)
Financial Sector	M2 multiplier (broad money, M2/base money, M0)	FV4	Measures how much an increase of base money leads to the expansion of money supply through the banking system. A high and increasing M2 multiplier may be indicative of over-borrowing and accompanied deterioration in asset quality.	BBQ
	Domestic credit to GDP ratio	FV5	A high value can indicate overheating and excess risk taking if it's too high. A low ratio may be indicative of credit constraints and a possibility of credit crunch in the near future.	MET & BBS
	General stock price index movement (DSE)	FV6	Indicates investors' confidence in an economy as well as potential vulnerability of the economy when stock prices go out of line from the fundamentals.	BBQ
Real Sector	Fiscal balance to GDP ratio	FV7	Indicates the stress imposed by government borrowing; high fiscal deficit raises interest rates and impacts repayment capacity if not supported by high economic growth. It could also leave the country exposed to inflation if the deficit is monetised by the Central Bank.	BBQ & BBS
	CPI inflation	FV8	Indicates overheating of the economy from a mismatch between aggregate demand and supply situation of an economy.	BBQ
	Global petroleum price	FV9	When the price of petroleum goes up, Bangladesh economy experience pressure in the foreign exchange market to meet additional demand for foreign exchange.	BBQ

Category	Indicator		Interpretation	Data Source
Regional Economic Climate Index (RECI)				
Exports	Weighted average GDP growth of major export partners (USA, UK, Canada, Germany, Italy, France, Spain)	RE1	A high GDP growth rate in the major export partners implies better export prospects for Bangladesh.	OECD, Singapore Department of Statistics & Bank Negara Malaysia
Imports	Weighted average CPI inflation of major import partners (China, India, Japan, Korea, Malaysia, Singapore)	RE2	Higher inflation in major import countries would be likely to translate into higher import payments for Bangladesh as well as higher domestic inflation.	

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