# **Financial Stability Report**

## **2017** | Issue 8



- This edition is published in 2018 and is based on data and information available as of December 2017, unless stated otherwise. Feedback on this report may be given to **gm.fsd@bb.org.bd.**
- Cover Design : Financial Stability Department
- This publication can be accessed through internet at http://www.bb.org.bd/pub/index.php

### FINANCIAL STABILITY REPORT 2017



Financial Stability Department Bangladesh Bank

#### **Advisor:**

Ahmed Jamal, Deputy Governor

#### **Lead Editors:**

- 1. Debashish Chakrabortty, Executive Director
- 2. Md. Kabir Ahmed, PhD, General Manager

#### **Editors:**

- 1. Mohammad Jamal Uddin, Deputy General Manager
- 2. Parikshit Chandra Paul, Deputy General Manager
- 3. Md. Ala Uddin, Deputy General Manager
- 4. Liza Fahmida, Deputy General Manager
- 5. Mohammad Shahriar Siddiqui, Deputy General Manager

#### **Associate Editors:**

- 1. Shamima Sharmin, Joint Director
- 2. Iftekhar Ahmed Robin, PhD, Joint Director
- 3. Md. Sohel Saklain, Joint Director
- 4. Farzana Islam, Joint Director

#### **Contributors:**

- 1. Sumanta Kumar Saha, CFA, Deputy Director
- 2. Md. Kamrul Islam, Deputy Director
- 3. Mst. Kamrun Nahar, Deputy Director
- 4. Mohammad Arif Hasan, Deputy Director
- 5. Muhammad Jahangir Alam, Deputy Director
- 6. Md. Taufiq us Samad Tonmoy, Deputy Director
- 7. Gazi Arafat Ali, Deputy Director
- 8. Rayhana Wazed Ruma, Deputy Director
- 9. Nishat Jahan, Deputy Director
- 10. Md. Mosharaf Hossain, Deputy Director
- 11. Muhammad Hasan Tareq, Deputy Director
- 12. Md. Harun Or Rashid, Deputy Director
- 13. Tanjir Ahmed Emon, Deputy Director
- 14. Faruque Ahamed, Assistant Director
- 15. Md. Barkat Ullah, Assistant Director
- 16. Roksana Ahmed, Assistant Director
- 17. Md. Aminul Islam, Assistant Director
- 18. Md. Iftekhar-ul-Islam, Assistant Director

#### Data/Write up Support:

Agricultural Credit Department (ACD) Banking Regulation and Policy Department (BRPD) Debt Management Department (DMD) Department of Financial Institutions and Markets (DFIM) Department of Off-Site Supervision (DOS) Deposit Insurance Department (DID) Foreign Exchange Policy Department (FEPD) Foreign Exchange Operation Department (FEOD) Financial Inclusion Department (FID) Financial Integrity and Customer Services Department (FICSD) Forex Reserve & Treasury Management Department (FRTMD) Integrated Supervision Management Department Microcredit Regulatory Authority (MRA) Monetary Policy Department (MPD) Payment Systems Department (PSD) Research Department Statistics Department SME & Special Programmes Department (SMESPD)



### **GOVERNOR'S MESSAGE**

The global economic upswing has become broader and stronger in 2017. Faster and above-expectation growth in the major advanced economies transfused optimism on global growth prospects. The economic outlook of emerging market economies (EMEs), especially those in South Asia, remains steady and largely favourable, driven by robust private consumption and sound macroeconomic policies. However, the underlying risks to financial stability have remained elevated in the medium-term. Moreover, fundamentals in emerging market economies may experience vulnerability to sudden tightening of global financial conditions. in this context, central banking around the globe has been constantly encountering multi-faceted challenges in terms of policy stance, strategy in designing and applying prudential norms and standards as well as approaches of supervision. Bangladesh Bank, as the central bank of Bangladesh, remains vigilant in its bid to overcome those challenges and has commenced implementing a system-wide supervision approach in close cooperation with other financial sector regulators and stakeholders.

Most of our key macroeconomic indicators recorded uptrend in 2017. Besides, wage earners' remittances rebounded in the second half of 2017 and are expected to sustain the uptrend due to re-opening of the UAE's market for the Bangladeshi workers. Banks and financial institutions, on an aggregate basis, recorded a modest improvement in terms of profitability compared with that of the preceding year. Also, these institutions, except a few sporadic events, were compliant in fulfilling reserve requirements of Bangladesh Bank. Nevertheless, there is no room for us to be complacent. Non-performing loans in the banking sector have to be addressed prudently. Banks need to exercise strict due diligence while assessing overall indebtedness of non-financial corporations (NFCs), underwriting their credit worthiness and ensuring close monitoring of their performance, considering the fact that their distress may sometimes be translated into systemic risk. Liquidity management of the banks needs to be more prudent and forward-looking, taking into account stressed scenarios of institution-specific risk profile. Contingency funding plan should be designed well ahead in this regard. Furthermore, corporate good governance practices have to be revamped in all areas of operation of financial institutions.

Banks and financial institutions have to continue offering technology-based financial services, complying strictly with anti-money laundering regulations. Besides, to overcome ongoing and emerging challenges, it would be worthwhile to invest more resources in training and awareness, and information and knowledge sharing platforms. I believe the financial intermediaries and the associated stakeholders would play a timely and responsive role at their end.

I hope our analyses and assessments will help create risk awareness among the stakeholders of the financial system as well as help them prepare for and adapt to plausible adverse shocks. Finally, I would like to thank the officials of Financial Stability Department who have contributed relentlessly for bringing this report to light.

Fazle Kabir Governor

Financial Stability Report 2017 V



### **DEPUTY GOVERNOR'S MESSAGE**

Global macro-economic situation has strengthened in 2017 on the back of a stronger recovery in investment in advanced economies and continued high growth in emerging market economies (EMEs). Expansionary fiscal policy in the US as well as accommodative monetary policy in the Euro-zone supported the growth momentum in those regions, the major export destinations of Bangladeshi products. Bangladesh Bank (BB) keeps keen eyes on these policy dynamics to explore any opportunity of such policy stances as well as to withstand any stability threats that may be originated from a sudden swing of the same. Higher growth expectations in India and continued robust growth in China may have positive spillover effects on the neighbouring economies like Bangladesh. However, BB is aware of the potential systemic risks of any sudden reversal of market sentiment or a shift toward protectionist policies that could hurt our growth prospects. BB is also observing closely the issues of geopolitical tensions, and cyber security breaches that may pose threats to the global financial stability.

Amid the strengthening global growth prospect, domestic macro-economic outlook remained broadly stable with strong GDP growth recorded in FY17. Though weather-related supply side shock hits food imports and sharp increase in capital machinery imports put pressure on our current account balance, increase in export earnings and workers' remittance inflows during the second half of the year provided the much-needed respite. The banking industry played a pivotal role in accommodating strong credit demand in the private sector and promoting economic growth. Banking system remained mostly resilient in 2017 despite liquidity strain faced by a few banks.

However, stress on the asset quality of the state-owned banks remains a concern. BB continued to emphasize on micro- and macro-prudential policies and tools to strengthen credit discipline and ensure good governance in the banking industry. In order to mitigate potential risks to the banking sector, BB is changing its regulatory framework and building financial stability architecture for addressing systemic risks using macroprudential supervision, e.g., developing frameworks for large exposures of Non-financial Corporation (NFC), domestic systemically important banks (DSIBs) and consolidated supervision. Moreover, banking is increasingly getting complex from multiple perspectives and therefore banks should be vigilant in cross-border transactions. In line with the vision of Sustainable Development Goals of the Government, BB continues its efforts to ensure a safe and secured payment system. BB also remains proactive to build a cyber resilient financial system.

This issue of the Financial Stability Report (FSR) presents both qualitative and quantitative analyses, strengths and weaknesses as well as resilience of the Bangladesh financial system. It also focuses on the recent development initiatives having implications for financial stability. I hope stakeholders of financial system will find important insights from the report and accordingly prepare themselves for addressing all endogenous and exogenous risks.

Ahmed Jamal Deputy Governor

Financial Stability Report 2017 Vii

### **Table of Contents**

	Acron	yms		xix
	Execut	tive Summ	hary	xxi
Chapter 1:	Overv	view		1
Chapter 2:	Macro	oeconom	nic Developments	7
	2.1	Global	Macro-financial Environment	7
	2.2	Domes	tic Macroeconomic Situation	8
		2.2.1	GDP Growth and Output Gap	8
		2.2.2	Inflation	9
		2.2.3	Export, Import and Balance of Payments	9
		2.2.4	Remittance and Overseas Employment	10
		2.2.5	Foreign Aid and External Debt Repayment	11
		2.2.6	Credit to Government (Gross) by the Banking System	11
Chapter 3:	Bank	ing Secto	or	13
	3.1	Financi	al System of Bangladesh	13
	3.2	Asset S	tructure of the Banking Sector	14
	3.3	Nonper	forming Loans, Provisions, Written-off Loans and	
		Advanc	es in the Banking Sector	18
	3.4	Resche	duled Advances	23
	3.5	Liability	Structure of the Banking Sector	28
	3.6	Banking	g Sector Deposit Safety Net	30
	3.7	Banking	g Sector Profitability	33
	3.8	Capital	Adequacy	35
	3.9	Leverag	ge Ratio	36
	3.10	Interna	l Capital Adequacy Assessment Process	37
	3.11	Banking	g Sector Liquidity	37
	3.12	Perform	nance of Branches of Local Banks Operating Abroad	39
		3.12.1	Assets Structure of Overseas Branches	39
		3.12.2	Liabilities Structure of Overseas Branches	40
		3.12.3	Profitability of Overseas Branches	40
	3.13	Islamic	Banking	40
		3.13.1	Growth of Islamic Banking	41
		3.13.2	Market Share of Islamic Banks	41
		3.13.3	Profitability of Islamic Banks	41
		3.13.4	Islamic Banks' Liquidity	42
		3.13.5	Capital Position of Islamic Banks	43
		3.13.6	Remittance Mobilization by Islamic Banks	43
		3.13.7	Classified Investments of Islamic Banks	44
	3.14	Perform	nance of New Banks	44

Chapter 4:	Bank	ing Sect	or Risks	49
	4.1	Overal	l Risk Profile of the Banking Sector	49
	4.2	Credit	Risk Structure in Banks	50
	4.3	Market	Risk Structure	51
		4.3.1	Interest Rate Risk (IRR)	52
		4.3.2	Exchange Rate Risk	52
		4.3.3	Equity Price Risk	53
	4.4	Operat	ional Risk	53
	4.5	Risk Mi	itigants	54
	4.6	Credit	Rating Transition Matrix	55
Chapter 5:	Bank	and FI R	esilience	59
	5.1	Bankin	g Sector Resilience	59
		5.1.1	Credit Risk	59
		5.1.2	Liquidity Risk	62
		5.1.3	Market Risk	62
		5.1.4	Banking Sector Resilience at a Glance	63
	5.2	Resilie	nce of the Financial Institutions	64
Chapter 6:	Finar	ncial Inst	itutions	65
	6.1	Introdu	uction	65
	6.2	Perforr	nance of Financial Institutions	65
		6.2.1	Sources of Funds	65
		6.2.2	Assets Composition	66
		6.2.3	Asset Quality	67
		6.2.4	Profitability	67
	6.3	Capital	Adequacy	68
	6.4	Liquidi	ty	68
Chapter 7:	Mon	ey and Ca	apital Market	69
	7.1	Money	Market	69
		7.1.1	Repo with Bangladesh Bank	70
		7.1.2	Interbank Repo	70
		7.1.3	Interbank Call Money and Interbank Deposit Market	71
	7.2	Bond N	Лarket	71
	7.3	Stock M	Market	73
		7.3.1	Major Index and Market Capitalization	73
		7.3.2	Turnover Ratio	74
		7.3.3	Market Capitalization Decomposition	75
		7.3.4	Price-Earnings (P/E) Ratio	76
Chapter 8:	Finar	ncial Infra	astructure	77
	8.1	Nation	al Payment Switch Bangladesh (NPSB)	77
	8.2	Bangla	desh Automated Cheque Processing System (BACPS)	77
	8.3	Bangla	desh Electronic Funds Transfer Network (BEFTN)	78

	8.4	Mobile Financial Services (MFS)	78
	8.5	Electronic Banking Operations	80
	8.6	Central Depository System	80
	8.7	Real Time Gross Settlement (RTGS) System	81
	8.8	Recent and Upcoming Developments	81
Chapter 9:	Foreig	n Exchange Market	83
	9.1	Foreign Exchange Assets and Liabilities	83
	9.2	Foreign Exchange Contingent Liabilities	84
	9.3	Interbank (Local) FX Turnover	84
	9.4	Reserves Adequacy Measures and Excess Reserves	85
	9.5	Wage Earners' Remittance	87
	9.6	Exchange Rate Movement	88
	9.7	Movement of Real Effective Exchange Rate (REER)	88
	9.8	Opening and Settlement of Letter of Credit (L/C)	89
	9.9	Intervention and Sterilization by BB	89
Chapter 10:	Devel	opments in the Financial System	91
	10.1	Assessment of Financial Stability	91
	10.2	Regulations and Policies for Banking sector	91
	10.3	Policies for Financial Institutions	93
	10.4	Regulations and Policies of Foreign Exchange	93
	10.5	Developments in Small and Medium Enterprise (SME) Financing	95
	10.6	Progress in Payment Systems	96
	10.7	Developments in Sustainable Finance	97
	10.8	Initiatives to Prevent Money Laundering	97
	10.9	Developments in Agricultural and Rural Credit	98
	10.10	Scheme for Financial Inclusion	98
	10.11	Developments in Financial Integrity and Customer Services	98
Chapter 11:	Micro	finance Institutions (MFIs)	99
	11.1	Outreach of Microfinance Sector	99
	11.2	Loans Scenario	102
	11.3	Sources of Funds and Its Composition	103
	11.4	Financial Sustainability	104

### **List of Charts**

			Page
Chart	2.1:	Bangladesh Real GDP Growth	8
Chart	2.2:	HP Filter FY1980-FY2017 Output Gap (Percent of Potential GDP)	8
Chart	2.3:	National CPI Inflation	9
Chart	2.4:	Export and Import Growth	9
Chart	2.5:	Trends of Trade Balance, Current Account Balance and Overall	
		Balance of Payment	10
Chart	2.6:	Terms of Trade of Bangladesh	10
Chart	2.7:	Wage Earners' Remittance	10
Chart	2.8:	Category-wise Overseas Employment	10
Chart	2.9:	Country-wise Overseas Employment	11
Chart	2.10:	External Debt to GDP Ratio	11
Chart	2.11:	Credit to the Government (Gross) by the Banking System	11
Chart	3.1:	Year-wise Banking Sector Asset Structure	15
Chart	3.2:	Year-wise Growth of Loans and Advances and Investment in Securities	15
Chart	3.3:	Share of Earning Assets of Different Categories of Banks	16
Chart	3.4:	Share of Liquid Assets of Different Categories of Banks	16
Chart	3.5:	Top 5 and Top 10 Banks based on Asset Size	16
Chart	3.6:	Distribution of Gross NPL Ratio	18
Chart	3.7:	Gross NPL Amount and Gross NPL Ratio	18
Chart	3.8:	Distribution of Banks by Gross NPL Ratio	19
Chart	3.9:	Gross and Net NPL Ratio in CY17	19
Chart	3.10:	Year-wise Banking Sector Loan Loss Provisions	20
Chart	3.11:	Top 5 and Top 10 Banks based on Gross NPL Size	20
Chart	3.12:	Gross NPLs Composition in CY17	22
Chart	3.13:	Year-wise Ratios of the Three Categories of NPLS	22
Chart	3.14:	Rescheduled Loans	23
Chart	3.15:	Sector-wise Rescheduled Loan Composition	23
Chart	3.16:	Sector-wise Rescheduled Loan Ratio	23
Chart	3.17:	Sector-wise Non-performing Rescheduled Loan Ratio	24
Chart	3.18:	Industry-wise Rescheduled Loan Composition	24
Chart	3.19:	Industry-wise Rescheduled Loan Ratio	24
Chart	3.20:	Industry-wise Non-performing Rescheduled Loan Ratio	24
Chart	3.21:	Bank Cluster-wise Rescheduled Loan Composition	25
Chart	3.22:	Bank Cluster-wise Rescheduled Loan Ratio	25
Chart	3.23:	Top 5 and Top 10 Banks based on Rescheduled Loan Size	25
Chart	3.24:	Distribution of Banks by Rescheduled Loan Ratio	25
Chart	3.25:	Year-wise Banking Sector Liability Structure	28
Chart	3.26:	Year-wise Growth of Deposits and Borrowings from Banks and FIs	28
Chart	3.27:	Year-wise Loans and Deposit Growth	29
Chart	3.28:	Loans and Deposits Outstanding	29
Chart	3.29:	Banking Sector Deposit Structure by Types of Accounts: CY17	29

Chart	3.30:	Top 5 and Top 10 Banks based on Size of Deposit	29
Chart	3.31:	Safety Net on Banking Sector Deposits	31
Chart	3.32:	Protection of Depositors on Enhancement of Insured Deposit Coverage Level	31
Chart	3.33:	Banking Sector Return on Assets (ROA): CY17	33
Chart	3.34:	Banking Sector Return on Equity (ROE): CY17	33
Chart	3.35:	Bank Type Wise Net-interest Margin in CY16 & CY17	33
Chart	3.36:	Year-wise Non-interest Expense to Gross Operating Income Ratio	34
Chart	3.37:	Banking Sector Income by Sources	34
Chart	3.38:	Banking Sector Monthly Weighted Average Interest Rate Spread for CY17	34
Chart	3.39:	Banking Sector Monthly Weighted Average Overall Interest Rate Spread	
		for CY16 and CY17	34
Chart	3.40:	CRAR of the Banking Industry	35
Chart	3.41:	Asset Share of Banks based on CRAR in CY17	35
Chart	3.42:	Banking Group-wise CRAR over CY17	35
Chart	3.43:	Tier-1 Ratio and Overall CRAR	36
Chart	3.44:	Leverage Ratio of Banks at end-December 2017	36
Chart	3.45:	Monthly ADR during 2017	37
Chart	3.46:	Banks' Category-wise ADR: Dec 2017	38
Chart	3.47:	Distribution of Banks by ADR: Dec 2017	38
Chart	3.48:	Banking Sector Call Money Borrowings Rate	38
Chart	3.49:	Banks' Monthly LCR in 2017	38
Chart	3.50:	Banks' Quarterly NSFR in 2017	38
Chart	3.51:	Assets Composition of Bangladeshi Banks in Abroad	39
Chart	3.52:	Liabilities Composition of Bangladeshi Banks in Abroad	40
Chart	3.53:	Growth of Islamic Banking: end-December, 2017	41
Chart	3.54:	Market Share of Islamic Banks and the Banking Sector in CY17	41
Chart	3.55:	Selected Income Ratios for Islamic Bank and Banking Industry	42
Chart	3.56:	LCR Maintained by Conventional Banks and Islamic Banks	42
Chart	3.57:	NSFR Maintained by Conventional Banks and Islamic Banks	42
Chart	3.58:	IDR (ADR) of Islamic Banking and the Overall Banking Sector in CY16 and CY17	43
Chart	3.59:	Capital to Risk Weighted Assets Ratio (CRAR) of Islamic Banks in CY17	43
Chart	3.60:	Share of Remittances Collected by the Islamic Banks and	
		the Overall Banking Sector in CY17	44
Chart	3.61:	Classified Investments (Loans and Advances) of Islamic Banks and	
		the Banking Industry in CY17	44
Chart	3.62:	ROA and ROE Comparison in CY17	45
Chart	3.63:	Comparison by Sources of Income in CY17	45
Chart	3.64:	CRAR of New Banks	46
Chart	3.65:	Advance to Deposit Ratio	46
Chart	4.1:	Overall Risk and Credit Risk Structure	50
Chart	4.2:	Market Risk Structure	51
Chart	4.3:	Exposure Rating Status in Bangladesh: end-December 2017	54
Chart	5.1:	Probable NPL Ratio after Minor Shock	60
Chart	5.2:	Stress Tests: Minor Shock on Different Credit Risk Factors	61
Chart	5.3:	Stress Tests: Minor Shock on Different Risk Factors	61

Chart	5.4:	Banking Sector Resilience in Different Shock Category (at Minor Shock)	64
Chart	5.5:	Combined WAR-WIR Matrix-based Zonal Position (CY17)	64
Chart	6.1:	Fls' Borrowings, Deposits and Equity Trend	65
Chart	6.2:	Fls' Financing Trend	66
Chart	6.3:	Fls' Classified Loans and Leases	67
Chart	6.4:	Fls' Loan Loss Provisioning	67
Chart	6.5:	Fls' Profitability Trend	67
Chart	6.6:	FIs' Capital Adequacy Ratio (CAR)	68
Chart	6.7:	FIs' CRR and SLR	68
Chart	7.1:	Volume of BB Bills Issuance in 2017	69
Chart	7.2:	Volume of T-Bills Issuance in 2017	69
Chart	7.3:	Average Monthly Turnover of LSF, Repo, Special Repo and Reverse Repo in 2017	70
Chart	7.4:	Interbank Repo Turnover and Interbank Repo Rate in 2017	70
Chart	7.5:	Call Borrowing Volume and Monthly Weighted Average Call Money Rate in 2017	71
Chart	7.6:	Volume of T-Bonds Auction Sales, 2017	72
Chart	7.7:	Monthly Outstanding of Treasury Bonds held by Non-resident Investors	72
Chart	7.8:	Volume of Treasury Securities Auction Sales (January, 2017- December, 2017)	72
Chart	7.9:	Monthly Volume of OTC Trade	72
Chart	7.10:	DSEX Index and Market Capitalization Trend in 2017	74
Chart	7.11:	DSEX (CY13-CY17)	74
Chart	7.12:	Market Capitalization Ratio (2013-2017)	74
Chart	7.13:	Turnover Velocity Ratio (CY13-17)	74
Chart	7.14:	Daily Turnover (CY17)	75
Chart	7.15:	Turnover to Market Capitalization Ratio (CY17)	75
Chart	7.16:	Decomposition of MCAP (Dec- 2016)	75
Chart	7.17:	Decomposition of MCAP (Dec- 2017)	75
Chart	7.18:	Market Price Earnings Ratio (June, 2012- December, 2017)	76
Chart	8.1:	Automated Cheque Clearing Operations	77
Chart	8.2:	Rate of Growth of MFS	79
Chart	8.3:	Banks Providing Electronic Banking	80
Chart	8.4:	Total Volume of Electronic Banking Transactions	80
Chart	9.1:	Year-wise FX Asset Structure	83
Chart	9.2:	Year-wise FX Liability Structure	84
Chart	9.3:	Components of FX Contingent Liabilities (end-December 2017)	84
Chart	9.4:	Components of Interbank FX Turnover (CY17)	84
Chart	9.5:	Annual FX Turnover	85
Chart	9.6:	Monthly FX Turnover (CY17)	85
Chart	9.7:	FX Net Open Position (CY17)	85
Chart	9.8:	Import Coverage of FX Reserve	86
Chart	9.9:	Reserves to M2 Ratio	86
Chart	9.10:	Short-term External Debt to Reserve Ratio	86
Chart	9.11:	Reserves Adequacy Measures for Bangladesh	86
Chart	9.12:	Wage Earners' Remittance (2015-17)	87
Chart	9.13:	Quarterly Trend of Remittance of Top 10 Sender Countries	87
Chart	9.14:	Exchange Rate Movement	88

Chart	9.15: REER Movement	88
Chart	9.16: L/C Opening	89
Chart	9.17: L/C Settlement	89
Chart	9.18: NDA, NFA, RM and M2 Movement	90
Chart	11.1: Number of Licensed Institutions, Branches, Employees and Members	100
Chart	11.2: Savings and Loan Scenario of MFIs Sector	100
Chart	11.3: Trend of Sector Outreach	101
Chart	11.4: Borrowers to Members Ratio	101
Chart	11.5: Average Loans and Savings Per Institution	101
Chart	11.6: Average Loans and Savings Per Branch	101
Chart	11.7: Average Loan per Borrower and Savings per Member	102
Chart	11.8: Member Structure	102
Chart	11.9: Outstanding Loan Structure in FY17	102
Chart	11.10: Outstanding Loan Structural Trend	102
Chart	11.11: Loan Recipients Composition in FY17	103
Chart	11.12: Non-performing Loan Ratio	103
Chart	11.13: Trend of Non-performing Loan	103
Chart	11.14: Total Fund of MFIs	104
Chart	11.15: Major Sources of Fund in FY17	104
Chart	11.16: Trend of Major Sources of Fund	104
Chart	11.17: Operational Sustainability	105
Chart	11.18: Financial Dependency	105
Chart	11.19: Concentration of MFI Sector in Terms of Loans, Savings and	
	Members held by Top 10 MFIs	105

### **List of Tables**

Table	3.1:	Financial System of Bangladesh	14
Table	3.2:	Sector-wise Nonperforming Loans Distribution (CY17)	21
Table	3.3:	Deposit Insurance Trust Fund and Its Composition	30
Table	3.4:	Comparison of Capital Adequacy Indicators of the Neighboring Countries	36
Table	4.1:	Grouping of Banks for the Purpose of Risk Analysis	49
Table	4.2:	Risk Weighted Asset Density Ratio	49
Table	4.3:	Credit Risk under Basel III in the Banking Industry	50
Table	4.4:	Group-wise Dissection of Credit Risk in the Banking System	51
Table	4.5:	Group Wise Dissection of Market Risk in the Banking System	52
Table	4.6:	Interest Rate Risk in the Banking System	52
Table	4.7:	Exchange Rate Risk in the Banking System	53
Table	4.8:	Equity Price Risk in the Banking System	53
Table	4.9:	Operational Risk under Basel III in the Banking Industry	53
Table	4.10:	Group Wise Dissection of Operational Risk in the Banking System	54
Table	4.11:	Transition Matrix, 2016-17	56
Table	4.12:	Transition Matrix, 2015-16	56
Table	5.1:	Stress Tests for Credit Risk: CRAR and NPL Ratio after Shocks	59
Table	5.2:	Stress Tests for Credit Risk: Default of Largest Borrowers	60
Table	5.3:	Stress Tests for Credit Risk: Increase in NPL in Particular Sector	60
Table	5.4:	Stress Tests for Credit Risk: Decrease in FSV of the Collateral	61
Table	5.5:	Stress Tests for Credit Risk: Negative Shift in NPL Categories	61
Table	5.6:	Stress Tests: Liquidity Risk	62
Table	5.7:	Stress Tests: Interest Rate Risk	63
Table	5.8:	Stress Tests: Exchange Rate Risk	63
Table	5.9:	Stress Tests: Equity Price Risk	63
Table	7.1:	Comparative Picture of T-Bonds Auction Sales of 2016 and 2017	72
Table	8.1:	Status of Mobile Financial Services (MFS)	78
Table	8.2:	Category-wise Growth of MFS	79
Table	8.3:	Online Banking Scenario as at end-December, 2017	80
Table	9.1:	List of Countries based on Foreign Exchange Reserves (December 2017)	87
Table	9.2:	Intervention in FX Market by BB	89
Table	11.1:	Outreach of Microfinance Services	100

### **List of Boxes**

Box	3.1:	Sector-wise Loans Concentration (CY17)	17
Box	3.2:	Stressed Advances in Banking Sector	26
Box	3.3:	The Capacity of Existing DITF and Its Forecast	31
Box	3.4:	Composite Financial Stability Index (CFSI)	46
Box	4.1:	Bangladesh Systemic Risk Dashboard (BSRD)	57
Box	6.1:	Fls' Sector-wise Loans and Leases as of end-December 2017	66
Box	7.1:	Yield Curve	73

### List of Appendices

Appendix	I	:	Banking Sector Aggregate Balance Sheet	107
Appendix	II	:	Banking Sector Aggregate Share of Assets	108
Appendix	III	:	Banking Sector Aggregate Share of Liabilities	109
Appendix	IV	:	Banking Sector Aggregate Income Statement	109
Appendix	V	:	Banking Sector Assets, Deposits & NPL Concentration (CY17)	110
Appendix	VI	:	Banking Sector Loan Loss Provisions	110
Appendix	VII	:	Banking Sector Year-wise Gross NPL Ratio & Its Composition	111
Appendix	VIII	:	Banking Sector NPL Composition (CY17)	111
Appendix	IX	:	Banking Sector Deposits Breakdown Excluding Interbank Deposit (CY17)	111
Appendix	Х	:	Banking Sector Selected Ratios	112
Appendix	XI	:	Banking Sector ROA & ROE	112
Appendix	XII	:	Banking Sector Year-wise ADR at end-December	112
Appendix	XIII	:	Banking Sector ADR (CY17)	113
Appendix	XIV	:	Banking Sector Leverage Ratio - Solo Basis (CY17)	113
Appendix	XV	:	Islamic Banks Aggregate Balance Sheet	114
Appendix	XVI	:	Islamic Banks Aggregate Income Statement	115
Appendix	XVII	:	Share of Islamic Banks in the Banking Sector (CY17)	115
Appendix	XVIII	:	Selected Ratios of Islamic Banks and the Banking Sector (CY17)	116
Appendix	XIX	:	Islamic Banks' CRAR (CY17)	116
Appendix	XX	:	Islamic Banks' Sector Investment (Advance)-Deposit Ratio	
			(As of end-December 2017)	116
Appendix	XXI	:	Overseas Branches Aggregate Share of Assets & Liabilities	117
Appendix	XXII	:	Stressed Advances Ratio in Different Segments	117
Appendix	XXIII	:	Year-wise Stressed Advances in Banking Sector	118
Appendix	XXIV	:	Stressed Advance Concentration in Banking Sector (CY17)	118
Appendix	XXV	:	Fls' Aggregate Balance Sheet	118
Appendix	XXVI	:	Fls' Aggregate Income Statement	119
Appendix	XXVII	:	Fls' Liquidity Position	119
Appendix	XXVIII	:	Fls' Other Information	120
Appendix	XXIX	:	Fls' Summary Performance Indicators	120
Appendix	XXX	:	Fls' Sector-wise Distribution of Loans and Leases	121
Appendix	XXXI	:	Interbank Repo Volume, Interbank Repo Rate and Call Money Rate	121
Appendix	XXXII	:	BB Bill and Treasury Securities Yield	122
Appendix	XXXIII	:	Equity Market Development	122
Appendix	XXXIV	:	Automated Cheque Clearing Operations	122
Appendix	XXXV	:	Volume of Electronic Banking Transactions	122
Appendix	XXXVI	:	Number of Banks Providing Electronic Banking Services	123
Appendix	XXXVII	:	Comparative Picture of Mobile Financial Services (MFS) in Last 3 Years	123
Appendix	XXXVIII	:	Banking Sector Month-wise Deposit & Advance Rate (CY17)	123
Appendix	XXXIX	:	External Credit Assessment Institutions (ECAIS)	123
Appendix	XL	:	Microcredit Sector	124
Appendix	XLI	:	List of Indicators used to Prepare CFSI	125

### 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
BSEC	Bangladesh Securities and Exchange Commission
BSRD	Bangladesh Systemic Risk Dashboard
CAR	Capital Adequacy Ratio
CDBL	Central Depository Bangladesh Limited
CFSI	Composite Financial Stability Index
CMSME	Cottage, Micro, Small and Medium Enterprise
CPI	Consumer Price Index
CRAR	Capital to Risk-weighted Asset Ratio
CRR	Cash Reserve Requirement
CSE	Chittagong Stock Exchange
CY	Calendar Year
DSE	Dhaka Stock Exchange
ECAI	External Credit Assessment Institutions
FC	Foreign Currency
FCB	Foreign Commercial Bank
FI	Financial Institution
FSC	Financial Stability Council
FX	Foreign Exchange
FY	Fiscal Year
GC	Gini Coefficient
GDP	Gross Domestic Product
GNPL	Gross Non-Performing Loan
HBFC	House Building Finance Corporation
HHI	Herfindahl-Hirschman Index
HV	High Value
ICB	Investment Corporation of Bangladesh
IDR	Investment Deposit Ratio
IDRA	Insurance Development and Regulatory Authority
IMF	International Monetary Fund
IRR	Interest Rate Risk
IT	Information Technology

LCR	Liquidity Coverage Ratio
L/C	Letter of Credit
MCAP	Market Capitalization
MFI	Microfinance Institution
MFS	Mobile Financial Services
MRA	Microcredit Regulatory Authority
MT	Mail Transfer
NBFI	Non-Bank Financial Institution
NDA	Net Domestic Assets
NEER	Nominal Effective Exchange Rate
NFA	Net Foreign Assets
NFCD	Non-Resident Foreign Currency Deposit Accounts
NII	Net Interest Income
NIM	Net Interest Margin
NPL	Non-Performing Loan
NPSB	National Payment Switch Bangladesh
NSC	National Savings Certificate
NSFR	Net Stable Funding Ratio
OBU	Off-shore Banking Unit
OTC	Over the Counter
PCB	Private Commercial Bank
P/E	Price-Earnings Ratio
PKSF	Palli Karma-Sahayak Foundation
RBCA	Risk Based Capital Adequacy
REER	Real Effective Exchange Rate
RFCD	Resident Foreign Currency Deposit Accounts
RJSC	Registrar of Joint Stock Companies and Firms
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement
RV	Regular Value
RWA	Risk Weighted Assets
SCB	State-owned Commercial Bank
SDB	Specialized Development Bank
SLR	Statutory Liquidity Requirement
SME	Small and Medium-sized Enterprises
T-bill	Treasury Bill
T-bond	Treasury Bond

### **EXECUTIVE SUMMARY**

This report is the summary of the assessment of Bangladesh Bank over the resilience of the financial system of Bangladesh to withstand risks and vulnerabilities and the course of actions taken in the calendar year 2017 (CY17). Also, the report reveals structural trends and issues relating to development and regulation of the financial sector which might have an effect on the stability of the financial system of Bangladesh.

**The domestic macroeconomic situation was broadly favorable.** A real GDP growth of 7.3 percent was recorded in FY17 against the growth of 7.1 percent recorded in FY16. Annual average inflation slightly increased to 5.7 percent in CY17 from 5.5 percent in CY16. Higher growth in import and sluggish growth in export and decline in wage earners' remittance caused a considerable current account deficit. The gross foreign exchange reserve was USD 32.2 billion at the end of CY17, which was equivalent to meeting nearly 8 months' import payments.

**The banking sector appeared to be resilient, registering a moderate growth in CY17.** The banking sector recorded a moderate growth in most of its income-earning assets and aggregate size of the balance sheet. Loans and advances recorded notable growth compared to those of the preceding year. Concentration of assets within a few banks reduced marginally while sectoral concentration of loans and advances remained at a moderate level. Also, deposits posted nearly 11.7 percent growth. Deposit insurance coverage in terms of fully protected depositors increased as well.

Asset quality of the banking sector, in terms of net NPL ratio, improved in CY17. The gross non-performing loan (NPL) ratio of the banking sector increased slightly to 9.3 percent in CY17 from 9.2 percent in CY16. However, net NPL ratio improved to 2.2 percent from 2.3 percent in CY16. Concentration of gross NPLs among few banks declined slightly. During the year, 48 banks out of 57 maintained the required provisions whereas provision shortfall increased in SCBs.

**Capital to risk-weighted assets ratio (CRAR) of the banking sector remained above the regulatory requirement.** During the review year, the banking industry maintained a CRAR of 10.8 percent against the minimum requirement of 10 percent and 0.83 percent Capital Conservation Buffer (CCB) against the 1.25 percent regulatory requirement; majority of the banks maintained the CRAR and CCB at or higher than the minimum regulatory requirement. Moreover, the banking industry maintained a leverage ratio, on both solo and consolidated basis, reasonably higher than the regulatory minimum requirements.

The banking sector experienced adequate liquidity in CY17, though a few banks suffered from liquidity stress on standalone basis. The advance-to-deposit ratio (ADR) of the banking industry increased gradually with no abrupt volatility throughout the year. Call money rate recorded an increasing trend and stood at 3.9 percent at the end of the year. Banks maintained Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), two Basel III liquidity metrices, notably higher than the minimum regulatory requirement, reflecting adequate liquidity in the banking system. However, these ratios declined in CY17 compared to CY16. Besides, all banks (except one) maintained minimum reserve requirements (CRR and SLR).

**Banking sector attained a moderate growth in net profit in the review year.** In CY17, profitability indicators of the banking sector were mostly positive. Return on equity (ROE) of the banking sector increased moderately while return on assets (ROA) remained same compared to the preceding year.

Net interest margin (NIM) also increased slightly. The weighted average interest rate spread reduced further at the end of 2017.

**Overseas branches of local banks maintained a steady growth in their banking activities.** Six overseas branches of two state-owned commercial banks contributed more than three-fourth of total overseas profits. Total assets of the overseas bank branches, which is 0.4 percent of the aggregate asset size of the banking system, increased by 28.4 percent in CY17, attributable mainly to the growth of the balance of these branches with the central banks and interbank market of respective jurisdictions while total liabilities increased by approximately 31.5 percent.

**Islamic Shari'ah based banks performed satisfactorily than the overall banking sector.** Islamic banks held one-fifth market share of the overall banking industry. Aggregate assets of the Islamic Shari'ah based banks grew by 27.3 percent in CY17, 4.1 percentage points higher than their CY16 level and 4.9 percentage points higher than that of the banking industry. Asset quality of the Islamic banks improved in CY17 compared to the previous year. All the Islamic banks (except one problem bank) maintained the minimum CRAR. In spite of attaining the same ROA, Islamic banks' overall ROE was higher than the corresponding industry ratio. Islamic banks remained compliant with the liquidity reserve requirements (CRR, SLR, LCR and NSFR) of Bangladesh Bank.

*New banks continued positive growth in their business activities in CY17.* All new banks except one had lower gross NPL ratio 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; however, the ratio declined in CY17 compared to the previous years. These banks attained lower profitability in CY17.

**Banking sector overall risk exposures remained broadly stable.** In CY17, the Risk Weighted Asset (RWA) Density ratio of the banking industry remained almost unchanged. RWA for credit risk increased while the same for market and operational risks decreased compared to CY16 level. The stated risks were mostly concentrated within conventional PCBs, and state-owned banks and PCBs operating under special attention. Credit rating transition matrix demonstrates a stable credit rating scenario in CY17 indicating the resilience of the financial system in terms of corporate solvency.

**The financial institutions (FIs) remained stable in CY17.** Both the asset and deposit size of FIs grew notably in CY17 compared to that of CY16. Investments of FIs were concentrated in housing, and trade and commerce sector. During the period, asset quality of FIs remained the same as that of CY16 (the gross non-performing loans and leases ratio remained unchanged). The FIs (except three) maintained the required provisions. The capital adequacy ratio (CAR) of FIs registered a moderate decline while the profitability, measured by ROA and ROE, showed an upward trend compared to the level of CY16. The FIs remained compliant with CRR and SLR requirements.

*Stress tests outcome reflects resilience of the banking as well as the FIs sector.* Credit risk, particularly the default of large borrowers, may considerably erode the regulatory capital of the banking sector. The liquidity and the market stress tests demonstrate resilience of the banks and the industry as a whole to different shock scenarios. Moreover, most of the FIs remained resilient against stressed scenarios in CY17.

**Excess liquidity in the money market moderated in CY17.** Strong private sector credit growth in CY17 moderated the excess liquidity prevailed in CY16. Consequently, call money rate and interbank reportate demonstrated a rising trend. Issuance of BB bills gradually decreased near the last quarter of 2017. Also, banks and FIs rarely used any liquidity support from BB in 2017.

**The bond market registered a minor rise.** Issuance of long-term treasury bonds increased by 0.8 percent in CY17. However, sales in the secondary market, dominated by over-the-counter (OTC) trade, recorded a drop. Bond holdings by non-resident investors also declined. Apart from lower devolvement on BB, no mandatory devolvement on primary dealers (PD) and non-PDs was observed throughout the year.

**The Dhaka Stock Exchange (DSE) recorded a notable rise in index and turnover.** DSE broad index (DSEX), market capitalization, and turnover demonstrated increasing trend in 2017. The manufacturing sector continued to dominate the stock market while the share of the financial sector increased largely due to higher growth in banks and FIs.

The financial market infrastructure is undergoing continuous evolvement to ensure an efficient and safe payment and settlement system. The National Payment Switch Bangladesh (NPSB) settled approximately BDT 104 billion in CY17 recording a 50 percent growth in payments compared to the previous year. Salaries of more than 28 ministries and government offices and dividend of listed public companies are now paid through BEFTN. Mobile financial services (MFS) and electronic banking operations showed moderate growth with higher volume of card and internet banking based transactions. High-value and regular value cheques clearing through the Bangladesh Automated Cheque Processing System (BACPS) and transactions through real time gross settlement (RTGS) system increased significantly as well.

**The foreign exchange (FX) market appeared mostly stable.** Depreciation of nominal exchange rate of Bangladesh Taka (BDT) against the US Dollar (USD) occurred throughout the year 2017 resulting from fluctuating net FX open position, growth in offshore banking unit (OBU), declining wage earners' remittance, growing import payments and lower export earnings growth. During the year, BB sold USD 1.2 billion in domestic FX market to respond the increasing market demand. However, FX reserve remained stable due to deferred settlement of newly opened L/Cs, increasing flow of FDI including portfolio investment and growing foreign borrowings.

**The MFIs sector recorded a noticeable growth.** Total outstanding loans of MFIs grew by nearly 27 percent while savings increased by approximately 28 percent in FY17. The borrowers-to-members ratio declined by 14 bps due to increase of members compared to borrowers. Female membership increased to around 91.1 percent at the end of FY17. The NPL ratio declined compared to that of FY16. During the period, upward trend of ROA and ROE, and decline of dependency ratio (donation to equity) due to rising savings and retained earnings indicated the soundness of the sector.

In sum, a reasonable level of stability and resilience was observed in the financial sector of Bangladesh during CY17, which is capable of withstanding any endogenous and exogenous shocks.



### **OVERVIEW**

The world economy in 2017 (CY17) displayed a synchronized cyclical development and achieved strongest growth (3.8 percent) since 2011 and is expected to continue this development in 2018. Resurgent in investment spending, accommodative monetary policies and fiscal incentives, rebound in global trade, stable labour markets, and favourable political and administrative stances enhanced growth in advanced economies (AEs). Emerging market economies (EMEs) also registered higher growth surpassing the forecasts. However, the downside risk is that fuel and grain prices may increase slightly, though other commodity prices may broadly remain stable in the international market in 2018. Furthermore, current global issues, such as macroeconomic policy stances in AEs, ongoing geopolitical tensions in different jurisdictions and inward-looking trade policy among a few AEs might slightly impinge global growth outlook.

**Domestic macroeconomic outlook was broadly favourable.** Real GDP growth increased by 20 basis points (bps) to reach 7.3 percent in FY17 compared to that of FY16. Annual average inflation slightly increased to 5.7 percent at the end of CY17 from 5.5 percent of end CY16. Credit to the Government (gross) from the banking system declined. Despite an increase in current account deficit attributable mainly to sluggish growth of export, high growth of import and considerable decline in wage earners' remittance, the overall balance of payments remained positive, thanks to sizeable rise in FDI (net), portfolio and other investment in the financial account. At end of FY17, the gross foreign exchange reserve reached at USD 33.5 billion, increasing by 10.9 percent from that of end FY16. However, at end of CY17, reserve position stood at 33.2 billion, equivalent to meeting nearly 8 months of import payments. The gross outstanding official external debt, as a percentage of GDP, dropped slightly from 11.9 percent to 11.4 percent in FY17, although the absolute figure increased by USD 2.3 billion.

**The banking sector recorded asset growth of 12.4 percent in CY17.** The banking sector, comprising 57 scheduled banks, registered asset growth of 12.4 percent in CY17, compared to 12.7 percent in CY16 mainly due to increase in loans and advances. Concentration of assets within a few banks reduced a bit in CY17 compared to that of the CY16. Sectoral concentration of loans and advances reduced but still remained at a moderate level. Deposit was the largest source of funds in the banking sector comprising 83.3 percent of the total liabilities as of end-December 2017, which was 0.9 percentage point lower than that of end-December 2016. Total bank deposits increased by 11.7 percent in CY17 compared to 12.8 percent in CY16. Slow growth of bank deposits might be primarily attributed to low interest rate on deposits, lower inflow of wage earners' remittance and foreign exchange sale by BB in CY17. Among different components, term deposits grew by 8.6 percent in CY17 compared to 5.3 percent in CY16. Higher growth of term deposits, which comprised 51 percent of total deposits, provided a considerable stability to banks' sources of fund. In CY17, insurance coverage for deposits of BDT 100,000 per depositor per bank increased to 88.6 percent and covered deposits to total insurable deposits ratio stood at 24.4 percent.

Asset quality of the banking sector, in terms of net NPL, improved in CY17 compared to that of CY16. The gross NPL ratio of the banking industry remained almost unchanged as it increased by only 0.1 percentage point to 9.3 percent in CY17 compared to that of CY16. Despite decline in gross NPL ratios of FCBs and SDBs, gross high NPL sustained mainly due to higher NPL ratios in SCBs and a few PCBs. Albeit slight decline, the gross NPL ratio of the SDBs remained quite high in CY17. 29 banks in the industry maintained gross NPL ratio of below 5 percent. However, the net NPL ratio of banking sector remained quite low and improved to 2.2 percent in CY17 from 2.3 percent in CY16. In CY17, all banks, except nine, maintained their provisions as per regulatory requirement. During

the review period, the ratio of the maintained provisions to gross NPLs increased from 49.4 percent to 50.5 percent, although banks' provision maintenance ratio dropped slightly from 84.9 percent in CY16 to 84.7 percent in CY17.

**Capital to risk-weighted asset ratio (CRAR) of the banking sector remained almost same at 10.8 percent for the third consecutive year.** At end-December 2017, 48 out of 57 banks were compliant with the requirement of the Pillar 1 of the Basel III capital framework. Against the regulatory requirement for Capital Conservation Buffer (CCB) of 1.25 percent for CY17, 46 out of 57 banks found compliant though, in aggregate, banking industry maintained a CCB of 0.83 percent. Tier-1 capital ratio of the banking industry stood at 7.6 percent against the minimum regulatory requirement of 6.0 percent at end-December 2017; the maintained Tier 1 ratio was higher than the minimum requirement in all the quarters of CY17. At end-December 2017, the banking sector maintained leverage ratios of 4.6 percent and 4.8 percent on solo and consolidation basis respectively against the minimum requirement of 3.0 percent.

**Though excess liquidity in the banking sector moderated in CY17, sufficient liquidity prevailed in this sector to withstand any liquidity shocks.** The advance-to-deposit ratio (ADR) of the banking industry increased to 75.9 percent in CY17 from 71.9 percent in CY16 mainly due to high growth of loans and advances against a slow growth in deposits. Yet the banking sector, as a whole, maintained an ADR much below the limit advised by BB. The liquidity coverage ratio (LCR) declined from 197.6 percent at end-December 2016 to 174.9 percent at end-December 2017. During the same period, net stable funding ratio (NSFR) declined from 109.3 percent to 107.5 percent. However, the banking sector maintained LCR and NSFR much above the minimum regulatory requirement of 100 percent throughout CY17 indicating sufficient liquidity to absorb any liquidity shocks. Besides, all banks (except one) successfully maintained minimum reserve requirements (CRR and SLR) at end-December 2017.

**The banking sector attained a significant growth (14.4 percent) in net profit in CY17 compared to 4.9 percent in CY16.** Net profit of the banking sector increased by 14.4 percent in CY17 compared to 4.9 percent in CY16. A rise of net interest income by 26.1 percent contributed to the increased net profit during this period. Return on equity (ROE) increased by 0.7 percentage points and return on assets (ROA) remained almost same in CY17 over that in CY16. The overall interest rate spread slightly reduced to 4.4 percent in CY17 from 4.7 percent in CY16 partly due to a sharp drop in lending rate than deposit rate.

Islamic banks showed a modest growth in CY17, performed a bit higher than the overall banking sector. During the review year, assets of eight Islamic banks, holding nearly one-fifth of the market share, aggregately grew by 17.3 percent compared to banking sector's overall growth of 12.4 percent. The liabilities also grew by 18.2 percent compared to that of CY16 mostly due to a positive growth in the deposit base of 15.6 percent compared to growth of 11.7 percent in the overall deposit base of the banking sector. Islamic banks' ROA and ROE stood at 0.7 and 13.1 percent respectively, though a drop was observed in the net profit growth. All Islamic banks except one maintained the minimum CRAR of 10 percent. Islamic banks' classified investments to total investments ratio was 4.2 percent at the end of CY17, substantially lower than the banking sector gross NPL ratio of 9.3 percent. The net NPL ratio of the Islamic banks was 0.1 percent compared to 2.2 percent of the industry average. Besides, Islamic banks maintained required liquidity in terms of CRR, SLR, LCR, and NSFR over the CY17.

At the end of CY17, banking sector's total rescheduled loans to total outstanding loan ratio reached to 9.8 percent, declining by 70 basis points from that of CY16. Industrial sector's rescheduled loans (regardless of the size of the industries) constituted the major portion of the total outstanding rescheduled loans (33.6 percent). However, when it is considered in terms of total loans and advances given in the sector, the ratio becomes 19.7 percent. PCBs possessed the highest

amount of rescheduled loans accounted for 53.1 percent of total rescheduled loans of the banking sector. On the basis of rescheduled loans as percentage of total loans, SCBs ranked top with 23.1 percent while PCBs held only 6.9 percent. The top 5 banks held 54.5 percent of total rescheduled loans, while top 10 banks held more than two-thirds (70.6 percent) of the same. Thirty two banks had their rescheduled loans ratio within 5 percent of their total loans, while 9 banks maintained such ratio at higher than10 percent.

**Overseas branches of local banks maintained a steady growth in their banking activities.** In CY17, the total assets of the overseas bank branches grew by 28.4 percent, attributable mainly to the growth in the placements of funds of these branches with the host country central banks and banks in respective jurisdictions. The liabilities increased by 31.5 percent, in which dues to head office and branches abroad along with other liabilities accounted for 72.1 percent. Net profit of overseas branches remained almost same as CY16, with ROA recording a decrease of 29 bps in CY17. However, assets of the overseas branches constituted less than one percent of the aggregate assets of the banking industry, and thus, did not present any systemic threats to their parent banks in Bangladesh.

**Overall risk exposures of the banking sector remained at a moderate level in CY17.** The Risk Weighted Asset (RWA) Density ratio, a measure of the overall risk of the banking sector on aggregate basis, remained almost same in 2017. The RWA associated with credit risk, market risk, and operational risk were 88.0 percent, 3.2 percent and 8.8 percent of total RWA respectively in CY17 compared to the corresponding shares of 87.2 percent, 3.8 percent and 9.0 percent in CY16. Group-wise risk assessment shows that all the aforesaid risks were concentrated mainly within PCBs (excluding 4th generation banks) and SCBs, SDBs and PCBs operating under special attention. A notable upward migration of ratings was observed in transition matrix for 2016-17, indicating the resilience of the banking sector from the standpoint of corporate solvency.

**The stress testing exhibits a significant resilience of the banking sector as well as the FIs sector in CY17.** Stress tests on banks indicate that among three types of risks - credit, market and operational; credit risk demonstrates the dominance in terms of its impact on CRAR of the banking sector. In particular, in case of default of 3 largest borrowers, 19 out of 48 banks would become noncompliant in maintaining minimum required CRAR. The market and liquidity stress tests, on the other hand, displayed substantial resilience of banks to different shock scenarios. Similarly, 23 out of 33 FIs would remain resilient at stress tests while the rest might experience capital shortfall if the shocks materialized.

**The overall performance of the financial institutions (FIs) remained stable during CY17.** The total assets of FIs increased by 17.6 percent in CY17 compared to 17.1 percent in CY16, although loans and leases slightly increased. In contrast, deposits, borrowings and equity of FIs increased by 22.0 percent, 14.5 percent and 7.7 percent respectively in CY17 compared to those of the preceding year. FIs' asset quality, the non-performing loans and leases to total loans and leases ratio, registered at 7.3 percent similar to that of CY16. During CY17, FIs maintained provisions of BDT 19.7 billion against the requirement of BDT 24.6 billion. The CAR of FIs stood at 13.6 percent in CY17, compared to 16.6 percent in CY16. However, the overall capital adequacy ratio (CAR) was well above the regulatory requirement. FIs' profit before taxes increased by 41.5 percent in CY17 while ROA and ROE were 1.1 percent and 7.9 percent respectively. In CY17, FIs, in aggregate, was compliant in CRR and SLR with 2.7 percent and 20.6 percent respectively.

### Liquidity in the money market remained at ease during CY17 while excess liquidity moderated.

Gradual rise in interbank repo rate and call money rate throughout the year 2017 as well as decline in issuance of BB bills during the 4th quarter of CY17 indicated a moderation in excess liquidity. Total volume of interbank call borrowing accompanied by adequate supply of fund as well as significant increase in interbank deposits eased liquidity management in the money market in CY17. **The bond market was appeased with its key indicators in 2017.** Issuance of long-term treasury bonds registered a 0.8 percent increase in 2017 compared to that of 2016. Over-the-Counter (OTC) transactions of treasury securities exhibited a 16.3 percent drop in CY17 compared to that of CY16.

**The Dhaka Stock Exchange (DSE) registered growth both in index and turnover in CY17.** The DSE broad index (DSEX) and the market capitalization of DSE both increased around 24 percent in 2017 compared to that of the previous year. Similarly, issuance of capital increased by 4.3 percent compared to that of previous year, and the turnover velocity ratio increased to 51.3 percent in end-CY17. Moreover, the price earning (P/E) ratio rebounded in 2017 after a decreasing trend observed since 2014.

The financial infrastructures are developing incessantly to ensure an efficient and safe payment and settlement system in Bangladesh. The National Payment Switch Bangladesh (NPSB) settled approximately 17 million transactions amounting to BDT 104 billion in CY17 and maintained a persistent growth in terms of number of transactions and volume similar to those of CY16. Cheque clearing through the Bangladesh Automated Cheque Processing System (BACPS) registered 13 percent and 14.5 percent growth for high-value and regular-value instruments respectively. The Bangladesh Electronic Funds Transfer Network (BEFTN) facilitated transactions with the growth of 15.2 percent and 42.4 percent for credit and debit transactions respectively in CY17 compared to those of CY16. Mobile Financial Services (MFS) and Electronic Banking Operations recorded reasonable growths in CY17 with a higher volume of card based transactions.

**The foreign exchange (FX) market demonstrated a moderate volatility in CY17 compared to the preceding years.** Bangladesh Taka (BDT) depreciated against the US Dollar (USD) in CY17 resulting from fluctuating net FX open position, growth in offshore banking unit (OBU), declining wage earners' remittance, growing import payments and lower growth in export earnings. Slump in wage earners' remittance however slightly redeemed in the second-half of CY17. Besides, BB sold USD 1.2 billion in the domestic FX market to keep the FX market stable. Eventually, real effective exchange rate (REER) depreciated in the review year which might have contributed to enhancing export competitiveness. In CY17, import payments of only USD 25.9 billion executed against the newly opened import L/C worth of USD 65.3 billion.

#### In CY17, the following notable development initiatives took place in the financial system:

- i) BB issued the 'Prudential Guidelines for Agent Banking Operation in Bangladesh';
- ii) BB issued 'Guidelines on Credit Card Operations of Banks' to ensure safety and increase efficiency of credit card operations;
- BB instructed the banks to invest no more than 5 percent of their capital (comprising of paid-up capital, share premium, statutory reserves and retained earnings) in the bonds/ debentures of another company in line with the provisions of section 26(Ka) of Bank Company (Amendment) Act, 2013;
- iv) BB issued instructions regarding schedule of charges for Cottage, Micro, Small and Medium Enterprise (CMSME) sector to standardize the charges for the sector;
- v) BB sets the upper limit of call borrowing for FIs aligning the same with equity rather than asset. New rule would allow FIs to borrow maximum 30 percent of their equities from the call money market on yearly basis;
- vi) BB allowed, to bring uniformity in regulations for the enterprises of EPZs and EZs, banks to credit the equity received from foreign shareholders and loan received in foreign currency (FC) from external sources to FC accounts of 'Type A' and 'Type B' enterprises of EPZs;
- vii) BB instructed the banks and FIs to limit their interest rates on lending at 9 percent for financing women led enterprises under different refinance schemes of BB;

- viii) BB set higher placement/maximum limit for MFS customer account at BDT 0.3 million;
- ix) BB instructed MFS to maintain one account for one customer and to keep records of cash-in or cash-out amounting to BDT 5,000 and beyond;
- x) BB advised banks to introduce updated "Uniform Account Opening Form and Know Your Customer (KYC) Profile Form" before 01 April 2017.

The MFIs sector demonstrated a noticeable growth in terms of the number of borrowers, financial services, members, and employees during FY17. Total number of borrowers of MFIs sector increased by 1.7 million to 24.8 million in FY17. Total outstanding loans and total savings increased by 26.9 percent and 28.1 percent respectively in FY17 compared to those of FY16. This sector also experienced a growth in loan outstanding per borrower per branch and savings per client per branch in FY17. Besides, due to an increase of active members in MFIs, the current borrowers to members' ratio declined by 1.4 percentage points to 82.9 percent than that of the FY16. Moreover, the NPL ratio declined by 0.3 percentage point to 2.3 percent in FY17. Furthermore, positive trends of ROA, ROE, and dependency ratios of MFIs depicted a reasonable operational and financial sustainability.

# Chapter 2

### **MACROECONOMIC DEVELOPMENTS**

*Global economy strengthened in 2017 in tandem with cyclical development in real activities. Nonetheless, geopolitical tensions in various jurisdictions might dwindle down the growth momentum.* 

Gross Domestic Product (GDP) of Bangladesh registered a significant growth in 2017. Balance of Payment (BoP) remained positive with a significant rise in FDI, although current account deficit widened due to a sharp increase in import relative to the rise in export and slow growth in wage earners' remittance. In the context of global optimistic scenario, Bangladesh economy may follow a brighter trajectory in the coming years with the rally of stable economic situation in FY17.

### 2.1 GLOBAL MACRO-FINANCIAL ENVIRONMENT

The world economy recorded a strong momentum in 2017 as evident from continued accommodative monetary policies, fiscal incentives, rebounded global trade, and stable labour markets in the advanced economies (AEs). Furthermore, US corporate tax cut policy and their exit from Paris Climate Accord, NAFTA, and TPP helped surging investment and bringing vibrancy in economic activities. With this momentum, the global economy is expected to expand by 0.2 percentage point to reach 3.9 percent in both the year 2018 and 2019 from 3.7 percent in 2017 (World Economic Outlook, January 2018).

According to US Department of Commerce, real GDP growth in the USA registered at 2.3 percent compared to 1.5 percent in 2016. Increase in personal consumption, exports, fixed investment, and government expenditures supported the upward growth. The Euro area growth is estimated at 2.5 percent for 2017; although there were various troubles and tensions, e.g., Brexit, series of elections, and the collapse of the world's oldest living bank in Italy. Eurozone experienced a higher domestic demand and exports along with diminishing unemployment. However, the right-populism political tension and low wage along with considerable level of unemployment may pose some risks for the economy of the region. In the UK, average annual GDP growth stood at 1.7 percent mainly due to slow growth in service sector. Inflation increased sharply following a sharp fall in sterling along with a gradual increase in import and current account deficit.

ASEAN Countries<sup>1</sup> except Philippines and Laos registered a higher economic growth in 2017 compared to those of 2016. In the global economic perspective, overall growth in this region may rise in 2018. Accommodative monetary policies and expansionary fiscal policies in most of the countries along with resilient domestic demand, FDI influx, and higher global trade poise this region to optimistic future in coming years. However, rapid monetary policy contractions of AEs, widening of global trade restrictions, and increase in private sector debt might be the key challenges for the region.

In 2017, China's economy grew by 6.9 percent surpassing the official projection of 6.5 percent supported by solid consumption, higher investment, and export growth. However, mounting non-financial debt, government's deleveraging policy, and anti-pollution measures might slow down the growth momentum in 2018 and thereafter. In 2017, China's import from Bangladesh increased by 11 percent to USD 750 million, whereas, export increased by 5 percent to USD 80.6 billion.

In India, real GDP grew by 6.7 percent in FY17 which was 7.1 percent in FY16. Withdrawal of high value circulated notes, and tax reform might have impinged Indian economic growth. However, as

<sup>1</sup>Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, and Cambodia.

per IMF forecast, Indian economy may grow by 7.4 percent in FY18 which might have positive impact on Bangladesh economy.

Overall, the global economy sustained its momentum in 2017. Nevertheless, remaining geopolitical tensions in different jurisdictions, the rise of right-populism in different countries, and Chinese debt pile may impinge world's growth prospect.

### 2.2 DOMESTIC MACROECONOMIC SITUATION

### 2.2.1 GDP GROWTH AND OUTPUT GAP

Bangladesh achieved a real GDP growth<sup>2</sup> of 7.3 percent for FY17 (Chart 2.1) against the target of 7.2 percent. In overall GDP growth, service, industry and agriculture sectors contributed 3.6 percent, 3.3 percent, and 0.4 percent respectively. However, agriculture, industry and service sector alone grew by 3.0 percent, 10.2 percent and 6.7 percent respectively.



Source: Research Department, BB

It is mentionable that at current market prices, GDP in FY17 was estimated at BDT 19,758.2 billion which was about 14.0 percent higher than that of FY16. Per capita real GDP was estimated at BDT 58,602.6. Importantly, per capita nominal GDP and per capita real GDP grew by 12.7 percent and 6.1 percent respectively compared to those of the previous year.

During the last decade (FY08-FY17), average real GDP growth rate of Bangladesh was 6.3 percent. In this connection, output gap has been estimated using Hodrick-Prescott Filter approach<sup>3</sup> with annual times series data on real GDP spanning FY1980-FY2017<sup>4</sup> and found that Bangladesh economy operated, in terms of real output, slightly above its potential in the FY16 and FY17 (Chart 2.2) indicating a minor overheating of the economy. All else equal, such positive output gap may create upward inflationary pressure in response to demand pressure in key markets.

<sup>2</sup>GDP in Bangladesh is calculated on a yearly basis.

<sup>3</sup>The value of smoothing parameter has been set to 100, due to the use of annual data.

Various methodologies are used to estimate potential output, assuming that output can be divided into a trend and a cyclical component. The trend is interpreted as a measure of the economy's potential output and the cycle as a measure of the output gap.

CHART 2.2 : HP FILTER FY1980-FY2017 OUTPUT GAP (PERCENT OF POTENTIAL GDP)

Source: Economic Trends, BB (March 2018); World Development Indicators, World Bank.

<sup>&</sup>lt;sup>4</sup>The output gap is an economic measure of the difference between the actual output of an economy and its potential output—the maximum amount of goods and services an economy can produce when it is at its full capacity. A positive output gap takes place when actual output is more than full-capacity output. On the other hand, a negative output gap takes place when actual output is less than what an economy could produce at full capacity.

#### **2.2.2 INFLATION**



The annual average CPI inflation (base: FY06 = 100) in Bangladesh stood at 5.7 percent, increased by 0.2 percentage point from 5.5 percent of end-CY16 (Chart 2.3). During the period, food inflation rose to 7.2 percent from 4.5 percent of end-CY16. The increase in food inflation could mainly be attributed to higher global food prices and flash flood related crop losses in the North-eastern haor region of the country. On the other hand, non-food inflation significantly dropped to 3.5 percent from 7.1 percent of end-CY16.



#### **2.2.3 EXPORT, IMPORT AND BALANCE OF PAYMENTS**

Export grew by 1.7 percent in FY17 compared with 8.9 percent in FY16 (Chart 2.4). Merchandise export (fob) increased by USD 0.5 billion to USD 34.8 billion in FY17 from USD 34.3 billion in FY16. However, export (fob) as a percentage of GDP decreased by 1.5 percentage points from 15.5 percent in FY16 to 14.0 percent in FY17. It is to be noted that export of raw jute and leather decreased, whereas, jute and leather goods and footwears increased significantly in this period.

Import (fob) increased by USD 3.6 billion (or 9.0 percent) in FY17 to USD 43.5 billion from USD 39.9 billion in FY16. In spite of the negative

import growth for fertilizer, rice and oilseeds, overall growth in import in FY17 was positive because other importable items increased considerably. Import of food grains and other food items increased significantly by 20.0 percent to USD 5.5 billion. Import of capital goods increased by 11.2 percent to USD 20.1 billion, whereas, the growth of import of consumer and intermediate goods increased moderately by 4.5 percent to USD 21.4 billion. However, import (fob) as a percentage of GDP decreased by 0.6 percentage point from 18.0 percent in FY16 to 17.4 percent in FY17.

The trade deficit increased by USD 3.0 billion to USD 9.5 billion in FY17 from USD 6.5 billion in FY16 attributable to a relatively higher growth in import than the growth in export in FY17. The services and income account along with primary and secondary income registered a surplus of USD 8.0 billion. Current account deficit stood at USD 1.5 billion in FY17 from a surplus of USD 4.3 billion in FY16. Current account balance as a percentage of GDP stood at -0.6 in FY17 against 1.9 in FY16. The current account deficit arose from a higher trade deficit and a lower current transfer, particularly lower growth of wage earners' remittance in FY17. Chart 2.5 shows the current account balance to GDP ratio and Chart 2.6 portrays the trends of trade balance, current account balance and overall balance of payment (BoP) as a percentage of GDP in recent years.







Though a large deficit prevailed in the trade balance and thus in the current account balance, the overall balance showed surplus due to the overall outcome of a sizeable rise in FDI (net), portfolio and other investments in the financial account. Other investments mainly comprised of medium to long-term (excluding suppliers' credit) external debt.

The terms of trade was 87.11 in FY17 which was the same as in FY16 because the growth of export price index and import price index remained the same at 5.5 percent during the year (base year 2005-06).

#### 2.2.4 REMITTANCE AND OVERSEAS EMPLOYMENT

The remittance inflow in FY17 registered at BDT 1,010.3 billion, which is 13.5 percent less than that of the preceding year (Chart 2.7). Importantly, overseas employment has continuously been increasing during the last couple of years. Category-wise employment data also shows that overseas employment in different categories maintained an uptrend, and noticeably, the number of skilled employment surpassed the number of less-skilled employment (Chart 2.8).



Source: Statistics Department, BB

Source: Bureau of Manpower, Employment & Training


Employment surge took place in the Kingdom of Saudi Arabia and Malaysia (Chart 2.9). However, remittance inflow from these two countries remains mostly stable in recent years. As a percentage of GDP, remittances stood at 5.2 percent compared to 6.7 percent of FY16.

Source: Bureau of Manpower, Employment & Training

#### 2.2.5 FOREIGN AID AND EXTERNAL DEBT REPAYMENT



Official foreign aid disbursement decreased by 0.9 percent to USD 3,531 million in FY17 from USD 3,564<sup>R</sup> million in FY16. Food aid disbursements stood at USD 20.0 million in FY17 which was lower than that of FY16. The disbursement of project assistance stood at USD 3,512 million compared to USD 3,532 million in FY16. It is mentionable that no commodity aid was received in FY17 as in the preceding year.

Though official external debt increased by USD 2.3 billion in end-FY17 from USD 26.3 billion in FY16, as percentage of GDP it decreased by 0.5 percentage point in end-FY17 from 11.9 percent

in end-FY16. The debt-service ratio as a percentage of exports was 3.4 percent in FY17.

### 2.2.6 CREDIT TO GOVERNMENT (GROSS) BY THE BANKING SYSTEM



The credit to the Government (gross)<sup>5</sup> by the banking system decreased by 7 percent in FY17 compared to that of FY16. In absolute amount, the decrement was BDT 120.3 billion from BDT 1,804.8 billion in FY16 to BDT 1,684.5 billion in FY17. Surge in Government borrowing from public through National Savings Certificates (NSC) might have narrowed the growth of credit to the Government by the banking sector.

R - Revised

<sup>&</sup>lt;sup>5</sup>Total credit to government (gross) by the banking system equals to total claims on government (gross) excluding government currency held in BB & counter entry for government currency.

In sum, Bangladesh economy may follow a brighter trajectory in the coming years with the rally of stable macroeconomic outlook for the last couple of years including FY17. However, downside risk may arise from geopolitical tensions among the major trading partners, slow growth in export and widening of current account deficit.



### **BANKING SECTOR**

The banking system in Bangladesh was mostly resilient in 2017. Balance sheet size of the banking sector rose by 12.4 percent. Loans and advances grew by 18.9 percent while deposit increased by 11.7 percent. The mismatch between loans and deposit growth was partially offset by adjustment in asset portfolio, in particular, investments in government and equity securities. Capital adequacy ratio remained stable at 10.8 percent. Most of the banks were able to fulfill the regulatory requirement of capital conservation buffer (CCB). Likewise, majority of the banks remained compliant in terms of Basel III leverage ratio. In terms of net NPL ratio, asset quality slightly improved to 2.2 percent, though gross NPL remained almost same at 9.3 percent. Stressed advance ratio, however, deteriorated than that of CY16. ROA of banking sector remained unchanged at 0.7 percent while ROE increased by 70 basis points with respect to the same of the previous year. Banking sector as a whole was compliant in terms of reserve requirements-CRR and SLR, and Basel III liquidity metrics-LCR and NSFR. Islamic banks recorded a notable growth in their balance sheet size and performed a bit better than the conventional banks. New banks except one performed better than the industry average as well. Importantly, 88.6 percent of depositors of the banking sector were protected under the deposit insurance system.

### **3.1 FINANCIAL SYSTEM OF BANGLADESH**

Based on the degree of regulation, the financial system in Bangladesh is broadly comprised of three sectors. The formal sector includes regulated institutions, e.g. banks, financial institutions (FIs), insurance companies, capital market intermediaries such as brokerage houses, merchant banks etc., and micro-finance institutions (MFIs). The quasi-formal sector includes institutions regulated by their own acts under different Ministries of the Government, e.g. Bangladesh House Building Finance Corporation (BHBFC), Bangladesh Samabaya Bank Limited (BSBL), Grameen Bank etc., Non-governmental Organizations (NGOs) and discrete government programs. The informal sector is composed of shadow banking entities 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<sup>6</sup> (SCBs), 2 specialized development banks (SDBs), 40 domestic private commercial banks (PCBs), 9 foreign commercial banks (FCBs), 6 non-scheduled banks, and 34 financial institutions (FIs) operating in Bangladesh.

Bangladesh Securities and Exchange Commission (BSEC) supervises the capital market, comprising of 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, 57<sup>7</sup> merchant banks, 8 credit rating companies, 488 depository participants (stock dealers, brokers, security custodians, 32 asset management companies, etc.)<sup>8</sup> are working in the 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, 78<sup>9</sup> insurance companies and 784 registered<sup>10</sup> micro-finance institutes are working in Bangladesh. Cooperatives

<sup>&</sup>lt;sup>6</sup>In CY2015, Bangladesh Development Bank Ltd. (BDBL) was included in the SCB category that was reported earlier in the SDB category.

<sup>&</sup>lt;sup>7</sup>Source: http://www.secbd.org/List%20of%20Registered%20Merchant%20Banker..pdf

<sup>&</sup>lt;sup>8</sup>Source: http://www.secbd.org/CR\_TRUSTY\_ASSETManager\_MF.htm

<sup>&</sup>lt;sup>9</sup>Source: http://www.idra.org.bd/idra-org/index.htm

<sup>&</sup>lt;sup>10</sup>Source: Information provided by MRA.

and credit unions are regulated by the Registrar of Cooperatives. Besides, the Ministry of Finance itself regulates the Bangladesh House Building Finance Corporation (BHBFC) and Investment Corporation of Bangladesh (ICB) as well as 6 non-scheduled banks. 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 three times in CY17 to address the inter-regulatory issues in a coordinated manner. An apex body/authority namely Financial Stability Council (FSC) chaired by the Finance Minister is going to be established in Bangladesh to address systemic risks in the economy that may threaten the financial stability of the country. The FSC would include all the financial sector regulators (e.g., MoF, BB, BSEC, MRA, IDRA, Department of Cooperatives, RJSC etc.) and relevant government agencies such as National Board of Revenue (NBR).

TABLE 3.1: FINANCIAL SYSTEM OF BANGLADESH							
Sectors	Financial Markets	Institutions	Regulators				
Formal Sector	Money Market	Scheduled Banks (57): 01. SCBs (6) 02. PCB (40) 03. FCBs (9) 04. SDBs (2) Financial Institutions (34): 01. Govt. Owned (2) 02. Others (32)	Bangladesh Bank				
	Capital Market	Stock Exchanges (02) Merchant Banks (57) Credit Rating Companies (9) AMCs (32) Depository Participants (488) ICB	BSEC Ministry of				
			Finance				
	Insurance Market	Insurance Companies (78): 01. Govt. Owned (2) 02. Others (76)	IDRA				
	Micro Credit Market	MFIs (784)	MRA				
Semi-formal Sector	<ol> <li>HBFC</li> <li>PKSF</li> <li>Grameen Bank</li> <li>Jubilee Bank</li> <li>Ansar VDP Unnayan</li> <li>Karmasangsthan Bar</li> <li>Probashi Kallyan Bar</li> <li>Palli Sanchay Bank</li> </ol>	Ministries of the Government					
Informal Sector	Shadow banking (not yet regulated)						

### **3.2 ASSET STRUCTURE OF THE BANKING SECTOR**

A modest growth of 12.4 percent was observed in the asset size of the banking sector in CY17. It was attained primarily due to increase in loans and advances. Deposit growth slowed down and was lower than the loan growth in CY17. The rise in loan growth was partially supported by a negative growth in investments in government and other securities.

The size of the banking sector balance sheet rose by 12.4 percent in CY17 and attained an amount of BDT 13,059.3 billion. The rate of growth is slightly below than that of the previous year (12.7 percent). It is mainly due to a lower deposit growth rate in CY17 than the previous years. Due to decline in deposit growth, banks reduced their investments in government and other securities and increased short-term borrowings to accommodate increased lending. The annual growth rate of total deposit (including interbank deposit) was 11.7 percent in CY17 (12.8 percent in CY16) which was lower than the loan growth of 18.9 percent. However, as deposit level needs to be higher than loans and advances, the mismatch between the growth of loans and advances and deposits helped moderate liquidity stress in a few banks although the banking system as a whole, on an aggregate basis, appeared to be at ease regarding liquidity.

Chart 3.1 illustrates banking sector asset structure in CY17 and Chart 3.2 illustrates yearly growth of loans and advances and investments. The substantial negative growth in the investment category may be largely explained by negative growth in government securities. The data seems to indicate that the Government is relying less on the banking sector to collect fund and is virtually paying off the debts. The phased-in reductions in share market exposure by banks also appeared to be an added reason for negative growth of investment. Nevertheless, most of the income-earning assets in the banking industry registered a positive growth in CY17.



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

The asset structure of the banking industry continued to be dominated by loans and advances, which possessed 65 percent of total assets in CY17 while it was 61 percent in CY16. This increase was mainly due to growth in loans and advances by 18.9 percent in CY17 compared to 15.3 percent in CY16. Among different categories of banks, SDBs and PCBs had higher loans and advances (77.4 and 72.6 percent respectively) while the SCBs possessed the lowest proportion (46.5 percent) of loans and advances in their asset mix. It can be noted that stringent MOUs with BB accompanied by high NPLs might have induced SCBs to focus more on money market instruments rather than expanding loans and advances. Investments in government and other securities, the second highest asset share, decreased and reached to 14.7 percent of total assets. The yearly negative growth was 10.3 percent compared to CY16.

As of end-December 2017, the share of banks' assets with BB was almost similar to the preceding year while the share with other banks and FIs and share of money at call and short notice increased by 0.8 and 0.1 percentage points respectively. SCBs mainly experienced these growths as they were the main supplier of fund in interbank market.

In CY17, share of major earning assets<sup>11</sup> of PCBs increased while the reverse was observed for the SCBs (Chart 3.3). It is evident that SCBs' market share of earning assets declined by 2.5 percentage points and PCBs' market share of the same increased by 2.8 percentage points. The market shares of the earning assets of other two categories of banks remained almost similar to that of CY16. The higher market share of the PCBs might be a positive sign for financial stability as the PCBs had better asset quality and lower NPLs compared to those of SCBs.

<sup>11</sup>Here earning assets include loans and advances and investment. Liquid assets include cash, balance with BB, balance with banks and FIs, and money at call and short notice.



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

Chart 3.4 illustrates that the market share of liquid assets declined for the PCBs and increased for the SCBs. In particular, SCBs' share increased by 5.8 percentage points, while the share of PCBs reduced by 4 percentage points. It seems that SCBs are focusing more on liquid assets due to restrictions on their new lending. On the other hand, PCBs are reducing their liquid asset holdings to focus more on earning assets.

### Concentration of assets within a few banks reduced slightly in CY17 compared to CY16, indicating a positive sign of diversification of concentration risk.

Concentrations of assets within the top 5 and top 10 banks were 30.8 percent and 44.3 percent respectively as of end-December 2017, which were 32.2 percent and 45.8 percent respectively as at end-December 2016 indicating a mild moderation of concentration risk. In CY17, the list of top 10 banks included 6 PCBs and 4 SCBs, as these two groups possessing respectively 67.1 percent and 25.9 percent of the total assets of the banking industry; FCBs and SDBs shared 4.6 and 2.4 percent respectively.



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

The calculated Herfindahl-Hirschman Index (HHI) of 1372.3 points indicates a moderate level of sectoral concentration of loans and advances in the banking system. Though there are some changes observed in loans and advances by sectoral categories, the data still reveal that the banking sector loans were concentrated within a few sectors in CY17. In particular, large industries showed 24.1 percent concentration in the total loan portfolio, followed by wholesale and retail trade with a share of 19.5 percent. The index value shown in Box 3.1, slightly increased in CY17 compared to that of CY16 (1308.8 points), indicates that the loans and advances became somewhat moderately concentrated during this period, as it is still maintaining a considerable distance from the upper limit of high concentration, an HHI of 1800.

The Basel III framework<sup>12</sup> has also recommended for 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 CY17 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.

BOX 3.1: SECTOR-WISE LOANS CONCENTRATION (CY17)							
SI	Sector	Amount	% of	HHI*			
		(In Billion BDT)	total				
1	Large Industries	1907.04	24.05	578.41			
2	Wholesale and Retail Trade (CC, OD etc.)	1547.68	19.52	380.96			
3	Miscellaneous	832.39	10.50	110.20			
4	Import Financing (LIM, LTR, TR etc.)	820.08	10.34	106.96			
5	Small and Medium Industries	796.97	10.05	101.02			
6	Service Industries	471.74	5.95	35.39			
7	Agriculture	368.46	4.65	21.59			
8	Export Financing (PC, ECC etc.)	335.33	4.23	17.88			
9	Housing (Commercial): for Developer/Contractor	228.8	2.89	8.33			
10	Housing (Residential) in Urban Area for Individual Person	213.62	2.69	7.26			
11	Other Construction	121.36	1.53	2.34			
12	Infrastructure Development (Road, Culvert, Bridge, Tower etc.)	80.49	1.02	1.03			
13	House Renovation/Repairing/Extension	49.23	0.62	0.39			
14	Lease Financing/Leasing	29.12	0.37	0.13			
15	Fishing	28.67	0.36	0.13			
16	Water Transport (Excluding Fishing Boats)	25.56	0.32	0.10			
17	Road Transport (Excluding Personal Vehicle & Lease Finance)	23.88	0.30	0.09			
18	Cottage Industries/Micro Industries	16.85	0.21	0.05			
19	Air Transport	12.97	0.16	0.03			
20	Housing (Residential) in Rural Area for Individual Person	11.22	0.14	0.02			
21	Procurement by Government	6.75	0.09	0.01			
22	Water-works	1.14	0.01	0.00			
23	Forestry and Logging	0.05	0.00	0.00			
24	Sanitary Services	0.00	-	-			
	Total Loans and Advances	7929.44	100.00	1,372.31			

\* HHI = Herfindahl–Hirschman Index

Note: Total loans and advances exclude bills payable and OBU figures. Source: Statistics Department, BB; Computation: FSD, BB.

<sup>12</sup>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.

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

Nonperforming loans ratio remained mostly stable in CY17. However, high NPL ratio in SCBs and SDBs in recent years appears to be a concern for the banking sector from financial stability perspective.

The gross nonperforming loan (NPL) ratio<sup>13</sup> in the banking sector increased to 9.3 percent in CY17 from 9.2 percent in CY16. Pertinently, inadequate due diligence in credit management is one of the key reasons for persistent high NPL in few banks.





The gross NPL ratios of different categories of banks are illustrated in Chart 3.6. The gross NPL ratios of all groups of banks except FCBs and SDBs went up between end-December 2016 and end-December 2017. FCBs experienced a moderate decline of 2.6 percentage points in their gross NPL ratio during this period.

Though SDBs achieved some improvement but their NPL ratio still remained high. Along with this, increasing NPL ratio in SCBs is another reason behind high overall NPL ratio in the banking sector. The gross NPL ratio of SCBs increased to 26.5 percent in CY17 from 25.1

percent in CY16. Asset quality deteriorated for the PCBs as their gross NPL ratio increased to 4.9 percent in CY17 from 4.6 percent in CY16. If rescheduled and restructured advances were considered, then the gross stressed advance would have been even higher for each category of banks.



Chart 3.7 illustrates an increasing trend in gross NPL in monetary value (left scale). It increased from BDT 621.7 billion in CY16 to BDT 743 billion in CY17 registering a growth of 19.5 percent. The quarterly analysis shows that the gross NPL ratio in the last quarter was lower than the previous quarters of CY17 (2017Q1: 10.5 percent; 2017Q2: 10.1 percent; 2017Q3: 10.7 percent; 2017Q4: 9.3 percent)<sup>14</sup>.

<sup>13</sup>Total classified loans as percentage of total loans outstanding.

<sup>14</sup>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.



Bank-wise NPL 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 with 12 in both CY16 and CY17. 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 an increase in the NPL ratio of SCBs and PCBs. However, 29 banks in the industry maintained a lower NPL ratio of below 5 percent. Eight FCBs out of nine recorded a

single-digit gross NPL ratio at end-December 2017, while all PCBs except 2 experienced less than 10 percent of gross NPL ratio. On the other hand, a low NPL ratio was observed for new banks which commenced operation in 2013 except one. For the last couple of years, the SCBs and SDBs had the highest NPL ratios and the scenario is continuing.

The net nonperforming loan (net NPL) ratio<sup>15</sup> was 2.2 percent at end-December 2017 which was 2.3 percent at end-December 2016. This ratio did not decline much due to an increase in provision shortfall in SCBs albeit some improvement for other categories of banks. Aggregate provision shortfall of the banking sector was BDT 67.7 billion in CY17 while SCBs had a shortfall of BDT 82.6 billion. Though few banks faced provision shortfall and availed regulatory forbearance on standalone basis, PCBs, FCBs and SDBs maintained provision surplus during the same period.



Chart 3.9 illustrates that the industry net NPL ratio stands at 2.2 percent calculated from gross NPL ratio of 9.3 percent after netting of specific provision and interest suspense. 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 are holding the largest share of the industry assets with low level of net NPL ratio are indicating operational resilience of the private sector banks against any stability shock.

Though SDBs are possessing lower gross and net NPL ratios compared to SCBs, the net NPL ratio in both categories of banks remained high (around 10 percent) indicating a weaker resilience of these banks to withstand stability threats. FCBs had both higher gross and net NPL ratio than the PCBs in CY17.

# In CY17, all banks except 3 SCBs, 5 PCBs and 1 SDB maintained loan-loss provisions as per regulatory requirement of BB. Provision shortfall was not a system wide phenomenon and most banks were adequately provisioned.

<sup>15</sup>Net NPL ratio = (Gross NPLs - Loan-loss Provisions – Interest Suspense)/(Total Loans Outstanding - Loan-loss Provisions – Interest Suspense)

The gross NPLs increased by BDT 121.3 billion between CY16 and CY17. These new NPLs as well as older ones required banks to maintain cumulative provisions of BDT 442.9 billion as of end-December 2017, against which banks actually maintained provisions amounting to BDT 375.3 billion. Though the maintained provision in CY17 is around BDT 67.9 billion higher than that of CY16, banks' provision maintenance ratio dropped slightly from 84.9 percent to 84.7 percent in the review period. During the same period, maintained provision to gross NPL ratio increased slightly from 49.4 percent to 50.5 percent. Increase in this ratio is primarily attributable to PCBs and FCBs which maintained surplus provision. The sizeable rescheduled advances also reduced the provision requirement for banks to some extent. Among different categories of banks, SCBs experienced a provision shortfall of BDT 60.8 billion in CY16 and BDT 82.6 billion in CY17. Apart from SCBs, during CY17, 5 PCBs and 1 SDB had an aggregate provision shortfall amounting to BDT 11.1 billion. Both shortfall amount and number of banks in shortfall category increased in CY17 from CY16.



However, the rest of the banks in the industry were able to maintain required provisions and some of them retained provision surplus. The SDBs showed the signs of improvement with no provision shortfall, rather registering a provision surplus of BDT 1.5 billion in CY17, which was 0.5 billion in CY16. Though the surplus amount had increased but one SDB experienced provision shortfall in CY17. The chart illustrates the deteriorating trend in provision shortfall since CY14.



### The concentration of gross NPL among banks decreased slightly in CY17. Most of the SCBs and SDBs were listed in the top 5 and top 10 banks based on gross NPL amount.

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

The gross NPLs concentration ratios (based on the size of gross NPLs) of the top 5 and top 10 banks were 49.2 and 65.5 percent respectively as of end-December 2017 against the corresponding figures of 51.8 and 65.9 percent respectively in CY16. It is mentionable that the gross NPLs in SCBs were higher than those of other groups of banks. In CY17, the top 10 banks in terms of NPL size consist of 5 SCBs, 4 PCBs, and 1 SDB. By considering highest order of gross NPL ratio, among the top 10 banks, 5 are SCBs, 2 are PCBs, 2 are SDBs and 1 is FCB. The presence of SCBs and SDBs among the top 10 list (in terms of amount and ratio) may weaken the stability of financial system as these banks play critical roles in financial intermediation.

### The sector-wise NPL distributions do not show much concentration of NPL in any particular sector in CY17.

It is evident from Table 3.2 that the nonperforming loans (NPLs) were distributed throughout different sectors of the economy with a modest level of concentration in CY17. Commercial loans and RMG sector possessing the highest share of NPLs (23.9 and 14.5 percent respectively) against their 23.1 and 11.7 percent of total outstanding loans in the banking industry. The overall scenario, however, explains 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 3.2: SECTOR-WISE NONPERFORMING LOANS DISTRIBUTION (CY17)							
Sl. No.	Name of Sector	Total loans outstanding	Gross NPL	Gross NPL Ratio	(Amo % share of loans extended to a particular sector	unt in billion BDT) % share of NPLs of a particular sector	
1	Agriculture	379.4	62.8	16.6%	4.8%	8.5%	
2	Industrial (Manufacturing):						
2.1	RMG	930.3	107.9	11.6%	11.7%	14.5%	
2.2	Textile	619.9	74.9	12.1%	7.8%	10.1%	
2.3	Ship building and Ship breaking	117.7	19.1	16.2%	1.5%	2.6%	
2.4	Agro-based Industry	483.2	56.4	11.7%	6.1%	7.6%	
2.5	Other Industries (Large Scale)	1174.8	60.8	5.2%	14.7%	8.2%	
2.6	Other Industries (Small, Medium and Cottage)	329.8	43.4	13.2%	4.1%	5.8%	
3	Industrial (Services):						
3.1	Construction Loans	542.2	42.6	7.9%	6.8%	5.7%	
3.2	Transport and Communication	139.9	15.2	10.8%	1.8%	2.0%	
3.3	Other Service Industries	313.9	17.8	5.7%	3.9%	2.4%	
4	<b>Consumer Credit:</b>						
4.1	Credit Card	36.7	2.1	5.7%	0.5%	0.3%	
4.2	Auto (Car) Loan	19.3	0.6	2.9%	0.2%	0.1%	
4.3	Housing Finance	139.9	9.6	6.9%	1.8%	1.3%	
4.4	Personal	233.9	7.4	3.1%	2.9%	1.0%	
5	Trade and Commerce (Commercial Loans)	1844.8	177.4	9.6%	23.1%	23.9%	
6	Credit to NBFI	81.5	1.3	1.5%	1.0%	0.1%	
7	Loans to Capital Market:						
7.1	Merchant Banks	19.7	0.0	0.0.%	0.1%	0.0%	
7.2	Other than Merchant Banks	28.3	0.1	0.4%	0.4%	0.0%	
8	Other Loans	546.6	43.6	8.0%	6.8%	5.9%	
	Total	7981.9	743.02	9.3%	100.0%	100.0%	

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

### Bad and Loss loans to gross NPL ratio remained same in CY17 in comparison with CY16.

The gross NPL ratio increased to 9.3 percent in CY17 from 9.2 percent in CY16. More than four-fifths of gross NPLs (i.e. 87.0 percent), amounting to BDT 646.2 billion, were bad/loss (BL), which is BDT 121.7 billion higher than that of CY16. On the other hand, sub-standard (SS) and doubtful (DF) categories constituted 7.5 percent and 5.5 percent respectively as illustrated in Chart 3.12.



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

The increase of the BL loans to gross NPL ratio implies subsequent decreases of the SS loans to gross NPL ratio and the DF loans to gross NPL ratio, which are evident from Chart 3.13. The chart illustrates that the proportion of bad loans is increasing since the year 2012. Although the banks are required to maintain 100 percent provision against bad loans, an increase in the aggregate amount of bad loans is a matter of concern for financial stability through deteriorating banks' profitability and capital.

#### The outstanding balance of written-off loans stood at BDT 37.7 billion at the end of CY17.

A total of BDT 48.2 billion adversely classified loans were written-off from the banks' balance sheet till December 2017,<sup>16</sup> which was BDT 44.7 billion at the end of CY16. Indeed, written-off loans increased by BDT 3.5 billion during CY17. However, out of the total written off loans, banks have been able to recover BDT 10.5 billion till the end of CY17 which makes the outstanding balance of written off loans to BDT 37.7 billion. It should be noted that despite the loans 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 watching the movement of the NPLs of large non-financial corporations (NFCs).

The supremacy 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 NPLs is a matter of concern for smooth functioning of the economy. BB issued new Guidelines on Internal Control and Compliance and Credit Risk Management<sup>17</sup> urging banks to take precautionary measures while extending loans to high-risk sectors and to prioritize loans to productive sectors. BB also continued to take stringent measures from CY15 in monitoring loan classification and provisioning along with systematic initiatives<sup>18</sup> to monitor NPLs of large non-financial corporations (NFCs). All of these efforts could support the banking sector towards improving the prevailing NPL scenario.

<sup>&</sup>lt;sup>16</sup>Source: BRPD, BB

<sup>&</sup>lt;sup>17</sup>BRPD Circular No. 03 and 04, dated March 08, 2016.

<sup>&</sup>lt;sup>18</sup>FSD Circular No. 01: Setting up of Central Database for Large Credit (CDLC), dated December 24, 2015.

### **3.4 RESCHEDULED ADVANCES**

At end-December 2017, the loans that had been rescheduled for at least once, reached 9.8 percent of banks' total outstanding loans of which 72.5 percent were unclassified. Scheduled Banks are allowed to reschedule their classified loans according to the policy of the Bangladesh Bank<sup>19</sup>.



Chart 3.14 shows the amount of year-wise rescheduled loans for the last five years. In CY17, the amount of rescheduled loans increased by 24.0 percent from that of CY16. It is noteworthy that, in CY16, there was 19.5 percent decrease in rescheduled loan with respect to the same in 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 3.15 illustrates the sector-wise composition of rescheduled loans at end-December 2017. Loans rescheduled in

Industrial sector (regardless of the size of the industries) were 26.5 percent while with working capital it was 33.6 percent. RMG & Textile sector accounted for 20.4 percent of the industry's rescheduled loans. Loans categorized as commercial loans, other non-specified sectors (including ship building and breaking, transportation and communication and consumer credit, etc.) and foreign trade (Export credit, Import credit and Loans against Trust Receipts) shared 12.6 percent, 9.9 percent and 9.8 percent respectively of total rescheduled loans.



The rescheduled loan ratio (rescheduled loan to total loan) of industrial sector ranked the top of all sectors (Chart 3.16) with 19.7 percent followed by agricultural and RMG sector with 16.2 and 15.1 percent respectively. It can be mentioned here that Bangladesh Bank allowed banks to reschedule their short-term agricultural credit with relaxed down payment condition<sup>20</sup>. The rates of rescheduled loans in the remaining sectors were within 10.0 percent.

<sup>&</sup>lt;sup>19</sup>BRPD Circular No. 15 dated 23 September 2012.

<sup>&</sup>lt;sup>20</sup>BRPD Circular No. 05 dated 23 February 2015.





Chart 3.17 illustrates the sector-wise rescheduled non-performing loans ratio. Though only 7.9 percent of commercial loans have been rescheduled, 49.1 percent of this remains as non-performing. Non-performing rescheduled loans ratio of construction loans, working capital, foreign trade and industrial loans were 31.2 percent, 29.9 percent, 29.4 percent and 26.3 percent respectively. Non-performing rescheduled loans of agricultural sector relatively lower was compared to other sectors.

Composition of industry-wise rescheduled loans as at end-December 2017 exhibits (Chart

3.18) that the major portion (34.3 percent) of the rescheduled loans, amounting to BDT 267.0 billion, was under 'Large industry' category. Micro and Small industries secured second and third positions with shares of 29.1 percent and 19.9 percent respectively.



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

Chart 3.19 illustrates the industry wise rescheduled loan ratio at end-December 2017. The highest rescheduled loan ratio was observed in large industries with 18.9 percent followed by Micro, Small and Medium industries with 14.5 percent, 8.0 percent and 4.5 percent respectively. Rescheduled loans ratio of 'Cottage industries' was the lowest at 3.9 percent.



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

Chart 3.20 illustrates the industry wise non-performing rescheduled loan ratios. Though only 7.0 percent loans in small industries had been rescheduled, 40.8 percent of this remained as non-performing. Non-performing rescheduled loans in medium industry found high at 31.1 percent followed by cottage, others non-specified, micro and large industries accounted for 29.4 percent, 27.7 percent, 23.7 percent and 21.9 percent respectively.

At end-December 2017, PCBs occupied the highest amount of rescheduled loans, which accounted for 53.1 percent of total reschedule loans of the banking industry. During the same

period, SCBs, SDBs and FCBs shared 41.9 percent, 4.1 percent and 0.9 percent respectively of industry's aggregate rescheduled loans (Chart 3.21).



Chart 3.22 reveals that the SCBs, at the end-December 2017, ranked top with rescheduled loan ratio of 23.2 percent followed by SDBs of 13.8 percent. The ratios were 6.9 percent and 2.3 percent respectively for PCBs and FCBs.

Chart 3.23 highlights the concentration of outstanding rescheduled loans among banks. At end-December 2017, the top 5 banks held 54.5 percent of total outstanding rescheduled loans while top 10 banks held more than two-thirds (70.6 percent) of the same. The top 5 banks comprised of 3 SCBs and 2 PCBs whereas the top 10 banks comprised of 4 SCBs, 1 SDB and 5 PCBs.





Chart 3.24 shows the distribution of banks by rescheduled loan ratio. Highest numbers of banks were found between 2 percent to 5 percent. Up to 2 percent, there were 15 banks of which 8 were PCBs and 7 were FCBs. It is notable that the 48 banks maintained their rescheduled loans within 10 percent and 9 banks maintained above 20 percent.

The banking sector is said to be the main source of fund in fueling economic growth through short term financing. However, the pile-up of rescheduled loans seems to be a matter of concern. 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 IN BANKING SECTOR**

The stressed advances<sup>21</sup> ratio (stressed advances as percentage of total loans<sup>22</sup> outstanding) increased by 1.8 percentage points at end-December 2017 due to the rise in volume of non-performing loans and rescheduling of different categories of loans.



The stressed advances ratio rose to 19.0 percent at end-December 2017 from 17.2 percent at end-December 2016. Though the gross NPL ratio at end-December 2017 was only 10 basis points higher than that of previous year, rescheduled standard and restructured loans to total loans increased by 1.7 percentage points over the year, which demands cautious monitoring from both bankers as well as regulator to improve overall asset quality of the banking sector.

### B 3.2.1 Bank wise distribution of stressed advances ratio

### At end-December 2017, 25 banks scored stressed advances ratio of more than 10 percent compared to 24 banks in end-December 2016.

Chart B3.2.1 illustrates bank-wise stressed advances ratio. Equal number of banks (15 banks) was able to maintain their stressed advances ratios below 5 percent in both 2016 and 2017. A total of 17 banks had their stressed advances ratios between 5 to 10 percent, while 25 banks registered stressed advances ratios of more than 10 percent at end-December 2017.

An analysis of stressed advances concentration ratios (Chart B3.2.2) shows that top 5 and top 10 banks held 47.4 percent and 67.0 percent of total stressed assets respectively at end-December 2017. Among the top 10 banks, five are SCBs, four are PCBs and one is SDB.



<sup>21</sup>Gross nonperforming advances plus restructured and rescheduled standard advances are treated as the stressed advances of the banking sector.

<sup>22</sup>Here, the term 'loans' and 'advances' are used interchangeably.

### **B 3.2.2 Industry-wise stressed advances ratio**

In Bangladesh, large industries accounted for the highest volume of stressed assets followed by medium industries. Stressed advances ratios were found higher in SCBs and SDBs at end-December 2017 indicating some weaknesses in credit risk management and recovery activities.

Chart B3.2.3 illustrates the distribution of stressed advances ratios across five major borrower segments<sup>23</sup> combining both manufacturing and service sectors.



Source: Scheduled Banks; computation: FSD, BB

As of end-December 2017, SCBs and SDBs were exposed to the highest stressed advances ratios for all segments, compared with FCBs and PCBs. Higher stressed advances ratios were also observed in the small and medium industries apart from large industries indicating that the banks need to be more prudent about the advances sanctioned in those industries.

Table B3.2.1 illustrates that large industries, having 46.1 percent of total advances of the banking industry, registered 46.6 percent of total stressed advances at end-December 2017. Large industries' share in stressed advances increased significantly by 12.8 percentage

points from December 2016 owing to accumulation of rescheduled loans. On the other hand, medium industries possessing 14.4 percent share of total advances, accounted for 21.7 percent of total stressed advances. Medium industries' share in stressed advances was 1.2 percentage points lower than the previous year indicating better recovery than the other sectors. The micro and cottage industries held a very small portion of total advances and their share in total stressed advances also declined by 4.6 percentage points at end-December 2017.

Table B3.2.1: Industry-wise composition of stressed advances         (Percent)							
Particulars	Share in stres	ssed advances	Share in total advances				
	End-Dec 2016	End-Dec 2017	End-Dec 2016	End-Dec 2017			
Large Industry	33.8	46.6	42.2	46.1			
Medium Industry	22.9	21.7	15.6	14.4			
Small Industry	10.0	12.7	10.1	11.7			
Micro and Cottage Industry	6.9	2.3	3.6	3.4			
Others	26.4	16.7	28.5	24.4			

Source: Scheduled Banks; computation: FSD, BB

The build-up of stressed advances in SCBs and SDBs is still higher because they operate under many constraints and are not on equal footing with PCBs in terms of profitability due to their lending to certain prioritised segments of the economy. As the accumulation of larger stressed advances can hamper financial intermediation and banks' profitability, therefore it is a foremost concern for the bank management and the regulator. Thus banks should boost up recovery drives to ensure collection of dues and speedy resolution of stressed assets.

(https://www.bb.org.bd/mediaroom/circulars/smespd/jun292017smespd02.pdf)

<sup>&</sup>lt;sup>23</sup>Large segments, Medium Segments, Small Segments and Micro & Cottage segments: Definition based on SMESPD Circular No-02, dated 29 June 2017. Other segments: Loans to individuals and other than MSME and Large segment.

### **3.5 LIABILITY STRUCTURE OF THE BANKING SECTOR**

## Deposit growth slightly declined in CY17 compared to that of CY16. However, there was no system-wide liquidity stress; the SCBs maintained adequate liquid fund and provided liquidity to the money market.

Deposit was the largest source of external fund in the banking sector. The share of total deposits was 83.3 percent of the total liabilities as at end-December 2017 which was 0.9 percentage point lower than that of CY16. Slow growth of bank deposit might be primarily attributed to low interest rate on deposit, lower inflow of wage earners' remittance and foreign exchange sale by BB in CY17 on the back of rising current account deficit.



At end-December 2017, total deposits and borrowings from other banks and FIs increased by 11.7 percent (12.8 percent in CY16) and 45.5 percent (22.6 percent in CY16) respectively. Bills payable decreased by 8.2 percent in CY17 against 71.7 percent increase in CY16. The slow growth of deposit and sharp increase in borrowing from other banks and FIs indicates that a few banks might have faced some liquidity pressures. Term deposit exhibited a moderate growth of 8.6 percent in CY17 (5.3 percent in CY16) while current and savings deposit demonstrated growth rate of 14.4 percent (19.7 percent in CY16) and 13.6 percent (23 percent in CY16) respectively. The slowdown in current and savings deposit growth aggravated the liquidity stress which also induced a sharp increase of 67.8 percent in interbank deposits. SCBs were the major provider of liquid fund as their participation in call money lending almost doubled in CY17.

Banking system had higher growth of loans and advances than deposits in CY17. Despite the mismatch in growth rates of deposits and loans, banking system had adequate liquid fund to satisfy increased loan demand that was met by buildup of higher deposits than loans and advances in the system in earlier years. It seems that the banking system has resilience to satisfy additional loan demand without triggering any major liquidity shock.

Though the growth rate of deposit was lower compared to loan growth rate in CY17, initial deposit base was much higher than that of loans and advances. Deposit growth (excluding interbank) was only 10.6 percent in CY17 while loans and advances grew at 18.9 percent (Chart 3.27).



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

Because of this, the gap between deposit and loans outstanding reduced to some extent but aggregate amount of deposit was sufficient enough to meet aggregate amount of loan demand (Chart 3.28). At the end of CY17, the outstanding deposit balance was BDT 9,834 billion while loan balance was BDT 8,487 billion. Thus, the difference between them reduced to BDT 1,347 billion due to mismatch in growth rate. It can be mentioned here that deposit balance (excluding interbank deposit) was BDT 8,891 billion while loan balance was BDT 7,136 billion at the end of December 2016 indicating a surplus deposit fund of BDT 1,755 billion. This suggests that the banking system has resilience to meet increased loan demand without triggering major liquidity stress in the system.



At end-December 2017, the share of term deposit was 51.1 percent of total deposits, whereas the shares of savings deposit, current deposit and other deposits (excluding inter-bank deposits) were 19.9 percent, 20.3 percent and 8.7 percent respectively. Current and savings deposit experienced a slowdown in growth in CY17 compared to CY16.

Concentration of deposits in the top 5 and top 10 banks in CY17 remained almost similar to CY16. These banks accounted for 32.9 and 46.6 percent of total deposits (excluding inter-bank deposits) respectively during this period, compared to 33.8 and 47.7 percent respectively in CY16. The top 5 banks included 4 SCBs and 1



PCB while the top 10 banks contained 5 more PCBs in addition to the top 5 banks.

### **3.6 BANKING SECTOR DEPOSIT SAFETY NET**

## Under the current deposit safety net, at end-December 2017, 88.6 percent of depositors are protected (up to BDT 100,000 per depositor per bank) and the amount is 24.4 percent of total insurable deposits.

In Bangladesh, deposit insurance was first introduced in August, 1984 as a scheme under "The Bank Deposit Insurance Ordinance 1984". In July 2000, the Ordinance was repealed by an Act of the Parliament called "The Bank Deposit Insurance Act 2000". Deposit insurance system in Bangladesh is now being administered by the said Act. In accordance with the Act, Bangladesh Bank (BB) is authorized to carry out a fund called Deposit Insurance Trust Fund (DITF). The board of directors of BB acts as the trustee board for the DITF. In addition, Bangladesh Bank is a member of International Association of Deposit Insurers (IADI) since 2006.

In accordance with the "The Bank Deposit Insurance Act 2000" the main functions of the DITF are: collecting premium from all scheduled banks on half-yearly basis and investing in the Government Securities, REPOs and BB bills. The income derived from such investments is also credited to the DITF account for added investment. In case of winding up of an insured bank, as per stated Act, BB will pay to every depositor of that bank an amount equal to his/her deposits not exceeding BDT 100,000.

Deposit insurance system is designed to minimize or eliminate the risk that the depositors are exposed to by placing funds as deposit in a failed bank. The purpose of deposit insurance is to provide safety nets, reduce moral hazard and help increase market discipline at the minimum cost in the event of a bank failure. It is to mention here that the ultimate rationale for deposit insurance is to protect the depositors. Moreover, it reduces the risk of a systemic crisis from panic withdrawals of deposits from sound banks resulting a breakdown of the payment system. Indeed, deposit insurance provides benefits to the customers and in the long run it appears to be an essential component of a viable modern banking system.

Table 3.3 illustrates that the capacity of DITF reached at BDT 64.0 billion at the end of CY17 which is more than double compared with that of 2013. As of end-December 2017, DITF with BDT 100,000 per depositor in a single bank could cover only 0.7 percent of the total deposits of the entire banking system. Therefore, scope remains wide to enhance DITF balance compared to the size of the banking sector of Bangladesh.

TABLE 3.3: DEPOSIT INSURANCE TRUST FUND AND ITS COMPOSITION							
Particulars (in Billion BDT)	2013	2014	2015	2016	2017		
Insurable Deposits	5,322.93	6,034.86	6816.38	7918.17	8334.27		
Insurance Premium (during the year)	3.34	3.54	4.01	4.6	5.07		
i. Investment	29.76	36.35	44.06	53.73 <sup>24</sup>	63.98		
ii. Cash	0.07	0.005	0.57	0.0086	0.042		
Deposit Insurance Trust Fund Balance	29.83	36.36	44.63	53.74	64.02		

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

<sup>24</sup>Accumulation of the insurance premium after incorporation of deposit insurance in 1984.



Source: DID, BB; computation: FSD, BB



from BDT 100,000 to BDT 200,000 per depositor.

Source: DID, BB; computation: FSD, BB

The percentage of covered deposits<sup>25</sup> to total insurable deposits decreased from 26.9 percent in CY16 to 24.4 percent in CY17, indicating a relatively greater increase in large deposits compared with small deposits for the banking system. However, 88.6 percent of total depositor of the entire banking system is protected within this deposit insurance system indicating a comparatively effective deposit safety net.

With a view to enhancing protection of additional small depositors and thus to expand safety net for the banking system, a proposal is placed to and under process of review at the Ministry of Finance for enhancing the coverage

Upon approval of the extended coverage limit to BDT 200,000 per depositor per bank, the percentage of fully covered depositors will be increased to 94.2 percent of total depositors of the banking system. This amendment may also include the depositors of financial institutions and mobile financial service providers in the deposit insurance system, therefore small deposits of FIs and mobile financial services (MFS) could be secured.

A comprehensive deposit insurance programme is expected to maintain financial stability, thereby enabling banks to intermediate the savings effectively to support economic growth.

The success of deposit insurance system in reducing systemic risk would be amplified if the public is well aware of its existence and scope. With this point of view, regular dissemination of information on deposit insurance system from BB has been pursued to enhance public confidence on banking system.

### **BOX 3.3: THE CAPACITY OF EXISTING DITF AND ITS FORECAST**

The capacity of the DITF, in a single bank resolution, seems to be adequate. Chart B3.3.1 and B3.3.2 depict that the fund from the DITF can easily be utilized to liquidate three private commercial banks chosen based on highest GNPL ratio under the current deposit insurance (covered) level, as well as under the proposed enhanced insurance level of deposits, i.e. up to BDT 200,000.

(Continued)

<sup>25</sup>The covered amount refers to the total figure considering the deposits up to BDT 100,000 per depositor per bank.





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

Chart B3.3.3 illustrates that the DITF can compensate up to 32 small banks' insured deposits (up to BDT 100,000 per depositor) in the case of either single bank liquidation or a series of banks' liquidation. Here, the banks are arranged in ascending order of their corresponding deposit base, irrespective of their categories. However, a significant number of large banks' (in terms of large deposit base) insured deposits may not be compensated (hypothetical scenario) with the current balance of the DITF.



There is no phenomenon of bank liquidation in Bangladesh. After the incorporation of deposit insurance system in 1984, the deposit insurance fund (later on, named as Deposit Insurance Trust Fund, DITF) has grown sufficiently, exceeding BDT 64.0 billion at end-December 2017. Assuming no bank failure and no requirement of fund for liquidation in next 5 years, the fund may reach more than BDT 130 billion in 2022\* (Chart B3.3.4).

#### \* 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 a significant growth in net profit<sup>26</sup> in CY17 compared to that of CY16.

Banking sector's net profit increased by 14.4 percent from BDT 83.1 billion in CY16 to BDT 95.1 billion in CY17. Operating profit<sup>27</sup> increased to BDT 246.5 billion in CY17 from that of BDT 215.6 billion in CY16, recording an increase of 14.3 percent.

### While the ROA of the banking industry remained same, the ROE increased moderately in CY17 as compared to that of CY16.

Return on asset (ROA) remained unchanged at 0.7 percent at end-December 2017 compared to end-December 2016. On the other hand, the return on equity (ROE) increased by 70 basis points and reached to the levels of 10.4 percent in CY17 from 9.7 percent in CY16.



Source: DOS, BB; compilation: FSD, BB

Banking sector, as a whole, showed a stable performance in profitability during CY17 as shown in Chart 3.33 and 3.34. Number of banks with ROEs higher than 5 percent slightly decreased in CY17; around 50 percent of banks had ROEs higher than 10 percent. The ROA of few banks slightly deteriorated compared to the numbers in CY16.

### In CY17, the overall Net Interest Margin<sup>28</sup> for the banking industry increased slightly to 2.0 percent from 1.9 percent in CY16.

In terms of different components of profitability, the net interest margin (NIM) increased by 10 basis points from 1.9 percent in CY16 to 2.0 percent in CY17. Total interest expense also increased by 4.3 percent in CY17 from that of CY16.



The NIM of FCBs also continued to remain higher than that of all other categories of banks in CY17. On the other hand, the NIM of PCBs slightly decreased from 2.9 percent in CY16 to 2.7 percent in CY17. The SCBs, like previous year, depended more on non-interest income and experienced negative NIM in CY17. The NIM of SDBs increased notably to 1.3 percent in CY17 from 0.04 percent in CY16 attributable to higher interest income than the previous year.

Source: DOS, BB; compliation: FSD, BE

<sup>26</sup>Net income after provision and tax. <sup>27</sup>Profit before provision and tax.

<sup>28</sup>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.





The ratio of non-interest expense to gross operating income<sup>29</sup>, a measure of the efficiency ratio, improved slightly by 90 basis points from 53.3 percent in CY16 to 52.4 percent in CY17. This ratio was still on the higher side compared to the position of CY15, implying that banks should focus more on generating higher net interest income and non-interest income to keep pace with the increasing trend of non-interest expense; although in CY17, the growth in operating expense (10.1 percent) was less than the growth in operating income (12.1 percent).

The ratio of net interest income to total assets increased by 20 basis points from 1.5 percent in CY16 to 1.7 percent in CY17 while the ratio of non-interest income to total assets declined by 20 basis points from 2.4 percent in CY16 to 2.2 percent in CY17. Decrease in non-interest income to total assets and increase in net interest income to total assets could be attributed to shifting of more funds from investment to loans and advances which might have contributed in increasing the efficiency in generating net interest income.

#### The interest rate spread slightly reduced in CY17 compared to that of CY16.

Bangladesh Bank (BB) instructed the banks to keep their spread within lower single digit<sup>30</sup> in different sectors other than high risk consumer credit including credit card and SME loans. During CY17, the overall interest rate spread was lower than 5.0 percent. The weighted average interest rate spread of all banks dropped from 4.7 percent in December 2016 to 4.4 percent in December 2017. It has been observed that the weighted average lending rate for the banking industry declined from 9.9 percent in December 2016 to 9.3 percent in December 2017. The weighted average deposit rate also experienced a decline from 5.2 percent in December 2016 to 4.9 percent in December 2017.



<sup>29</sup>Gross Operating Income=Net Interest Income + Non-interest Income.

<sup>30</sup>BRPD Circular Letter No. 01 dated January 22, 2012.

Chart 3.38 illustrates difference in spreads among different categories of banks. The weighted average spreads of SCBs and PCBs remained close to 5.0 percent. On the other hand, for FCBs the spreads continued to remain comparatively higher.

Generally, as the banking sector develops, it becomes more competitive and more efficient. With this enhanced efficiency the overall spread will tend to decline. In Bangladesh, it is observed that the spread mostly downsized by slashing interest rate on deposits rather than improving efficiency.

### **3.8 CAPITAL ADEQUACY**

### At end-December 2017, the capital to risk-weighted asset ratio (CRAR<sup>32</sup>) of the banking industry remained unchanged at 10.8 percent.

CRAR of the banking industry stood at 10.8 percent at the end of December 2017. For the third consecutive year, banking sector CRAR remained almost stable at 10.8 percent. Out of 57 scheduled banks, 48 were able to maintain their CRARs at 10.0 percent or higher in line with minimum capital requirement (Pillar 1) of the Basel III framework<sup>33</sup>. Importantly, as evident from Chart 3.41, nearly 77 percent of the total banking industry's assets was held by CRAR compliant banks.



In line with the Basel III framework<sup>34</sup>, the Capital Conservation Buffer (CCB) requirement for banks in Bangladesh started from early 2016 and would be fully implemented by 2019 in a phased-in manner. Against the regulatory requirement for CCB of 1.25 percent in CY17, banking industry maintained a CCB of 0.83 percent. During the reporting period, 46 out of 57 banks were able to maintain the minimum required CCB.



Banking group-wise analysis of CRAR demonstrates that the foreign commercial banks (FCBs) maintained the highest level of CRAR while the specialized development banks (SDBs) and the state-owned commercial banks (SCBs) could not fulfill the minimum regulatory capital requirement of 10.0 percent. Private commercial banks (PCBs) maintained a steady rate of CRAR indicating soundness in their capital adequacy.

<sup>31</sup>BRPD Circular No. 01 dated February 07, 2017.

<sup>32</sup>Termed as capital adequacy ratio (CAR) under Basel II.

<sup>33</sup>The minimum regulatory requirement for CRAR was 10 percent in 2017.

<sup>&</sup>lt;sup>34</sup>Banks were required to maintain the CCB of 1.25 percent, above the regulatory minimum capital requirement of 10.0 percent during the review year.



At end-December 2017, Tier-1 capital ratio of the banking industry stood at 7.6 percent against the minimum regulatory requirement of 6.0 percent. The ratio declined by 30 bps from 7.9 percent of end-December 2016. Nevertheless, banking industry was able to maintain Tier-1 capital ratio higher than the minimum regulatory requirement in all the quarters of CY17.

Source: DOS, BB; compilation: FSD, BB

Taking the cross-country scenario into account (Table 3.4), however, the capital adequacy of the banking sector of the country is still somewhat lower compared to the ratios of India, Pakistan and Sri Lanka.

TABLE 3.4: COMPARISON OF CAPITAL ADEQUACY INDICATORS OF THE NEIGHBORING COUNTRIES							
Countries	CAR/CRAR (%)						
	2012	2013	2014	2015	2016	2017	
India	14.3*	12.7***	12.8***	12.7***	13.3***	13.9***	
Pakistan	15.4	15.5**	17.1	17.9	16.2	15.8	
Sri Lanka	16.4	16.3	17.2	15.4	15.6	15.2	
Bangladesh	10.5	11.5	11.4	10.8	10.8	10.8	

\*as of end-March, \*\*as of end-June, \*\*\* as of end-September

Source: Reserve Bank of India, State Bank of Pakistan, Central Bank of Sri Lanka, and Bangladesh Bank

### 3.9 LEVERAGE RATIO<sup>35</sup>

In order to avoid build-up of excessive on/off-balance sheet leverage in the banking system, a simple, transparent and 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.



Source: DOS, BB; computation: FSD, BB

At end-December 2017, the banking sector maintained a leverage ratio of 4.6 and 4.8 percent on solo and consolidated basis<sup>36</sup> respectively against the minimum requirement of 3.0 percent in both cases. As evident from Chart 3.44, out of 57, 50 banks maintained leverage ratio of 3.0 percent or higher. On the other hand, in case of consolidation, out of 36 banks, 34 banks were able to fulfill the regulatory requirement.

<sup>&</sup>lt;sup>35</sup>Leverage ratio = (Tier-1 capital after related deductions)/(Total exposure after related deductions)

<sup>&</sup>lt;sup>36</sup>For the guarter ended December of CY17, all 57 scheduled banks submitted leverage ratio returns on a solo basis. In addition, 36 banks also submitted their returns on a consolidated basis.

### 3.10 INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

As a step towards the implementation of adequate capital (Pillar 2) framework of Basel III, BB initiated implementation of Internal Capital Adequacy Assessment Process (ICAAP)<sup>37</sup> in the banking sector of Bangladesh. BB provided the banks with a process document to help evaluate their internal processes and strategies to ensure that adequate capital resources are there to cover 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. 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.

Based on the findings of the ICAAP reports and Supervisory Review Evaluation Process (SREP)<sup>38</sup> inspection based on December 2016, a series of bilateral meetings with the banks was started on February 14, 2018 and expected to be completed by June 2018. Mentionable that almost all the banks were able to maintain adequate capital position considering their capital charges for pillar 2 risks.

It has been observed in the last three meetings that the additional capital requirement against residual risk occurred mainly due to documentation error. It 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.

### **3.11 BANKING SECTOR LIQUIDITY**

### The liquidity situation in the banking industry moderated in CY17. Still there was adequate liquidity in the banking sector to absorb any liquidity shocks.

Due to the robust private sector credit growth in Bangladesh in CY17, the excess liquidity observed in the banking sector throughout CY16 moderated in CY17. This transition in liquidity scenario was reflected in the liquidity indicators such as, advance-to-deposit ratio (ADR), call money rate, liquidity coverage ratio (LCR) and net stable funding ratio (NSFR). At the same time, it was also observed through these indicators that adequate liquidity was available in the banking system in CY17.

The ADR of the banking industry increased to 75.9 percent in CY17 from 71.9 percent in CY16. It happened because of robust growth of loans and advances (18.9 percent) led by strong domestic demand and public investment which actually outpaced the deposit growth (10.6 percent) in CY17. However, the ADR of the banking industry remained much below the benchmark<sup>39</sup> set by BB.



Monthly ADR data demonstrates a gradual rise since December 2016, which reflects increasing economic activities in the domestic front as well as higher earnings potential of the banking industry. However, the maintained ADR remained well below the maximum allowable limit throughout 2017 with no abrupt volatility in the liquidity condition.

Pertinently, the increase in the ADR of the banking industry was mainly attributable to the ADR of PCBs which increased notably from 81.3 percent in CY16 to 84.7 percent in CY17 (Chart 3.46). The ADR of SCBs remained the lowest at 54.6 percent which, at times, makes them the

<sup>37</sup>ICAAP includes regulations of a bank's own supervisory review of its capital positions aiming to reveal whether it has prudent risk management and sufficient capital to cover its overall risk profile.

<sup>38</sup>SREP includes dialogue between BB and the bank's SRP (Supervisory Review Process) team followed by findings/evaluation of the bank's ICAAP.

<sup>39</sup>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 had been pursuing this policy and monitoring the ADRs of banks within that limit, other than a few exceptions. However, BB changed it to 83.5 percent and 89 percent for conventional and Islamic Shari'ah based banks respectively from January 2018 and instructed banks to bring down the ratio within the prescribed limit by 31 March 2019 (DOS Circular No. 02 and 03, dated 20 February 2018 and 09 April 2018 respectively).

major providers of liquidity in the market. As of December 2017, 22 banks had ADR above 85 percent, among which 6 are Islamic Shari'ah based banks and one is SDB. Noticeable that 7 banks' ADR exceeded 90 percent (Chart 3.47) during this period which may not be acceptable from the systemic point of view.



Source: DOS, BB.





Since January 2015, the interbank call money rate kept falling and the declining trend continued till the second month of CY17 to reach 3.5 percent. Thereafter, it soared to 3.9 percent by June 2017 and since then remained quite stable with some fluctuations to end the year at 3.9 percent. This increasing trend in call money rate is consistent with the strong credit growth in CY17, which increased the demand for call funds.

The liquidity coverage ratio (LCR<sup>40</sup>) and net stable funding ratio (NSFR<sup>41</sup>) also demonstrate that the excess liquidity in the banking industry, prevailed in 2016, moderated during 2017

(Chart 3.49 and 3.50). The LCR declined from 197.6 percent at end-December 2016 to 174.9 percent at end-December 2017. During the same period, NSFR declined from 109.3 percent to 107.5 percent. Nevertheless, there was adequate liquidity in the banking system in CY17 to absorb any liquidity shock as the banking industry maintained LCR and NSFR much above the minimum regulatory requirement of 100 percent throughout CY17.



Source: DOS, BB.

<sup>40</sup>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.

<sup>41</sup>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.

38 Financial Stability Report 2017

Moreover, all banks except one were able to maintain the minimum Cash Reserve Ratio (CRR) of 6.5 percent<sup>42</sup> and Statutory Liquidity Ratio (SLR) of 13.0 percent for conventional banks and 5.5 percent for Islamic Shari'ah based banks as of end-December 2017. In general, liquidity situation of the banking industry, though moderated, remained well positioned to withstand any liquidity stress.

### **3.12 PERFORMANCE OF BRANCHES OF LOCAL BANKS OPERATING ABROAD**

Banks incorporated in Bangladesh are expanding their operations in major global financial centers. They extended their business networks in 19 countries through 07 commercial bank branches, 07 representative offices, 39 exchange houses and 11 other offices at end-December 2017. 3 (three) commercial bank branches are operating mainly in Southeast Asia and the rest are in the Middle East.

One SCB and one PCB are operating in India whereas one SCB is operating in the United Arab Emirates (UAE). The overseas business networks of Bangladeshi bank branches are focusing mostly on deposit taking and lending along with other banking services like funds transfer, buying or selling foreign currencies and custodian services. They are also providing services to expatriate Bangladeshis working in the respective countries to expatriate remittances to Bangladesh through banking channel. Moreover, these banks are contributing to enhance the international trade services to Bangladeshi importers and exporters as well as non-resident Bangladeshis (NRBs).

### **3.12.1 ASSETS STRUCTURE OF OVERSEAS BRANCHES**

Overseas branches of Bangladeshi banks experienced a mixed growth in their total asset composition in CY17 compared to CY16 as the share of loans and advances declined slightly whereas the share of balance with other banks and FIs increased moderately.

The total assets of overseas branches of Bangladeshi banks were USD 647.3 million at end-December 2017, which was only 0.4 percent of total banking industry assets and USD 143.3 million higher than that of the previous year. This asset growth was mostly due to the increase in balance with other banks and FIs by USD 112.3 million and also increase in cash and balance from central banks by USD 21.5 million (Chart 3.51).



Source: Scheduled Banks; compilation: FSD, BB

In CY17, the asset growth of the overseas branches was 28.4 percent in comparison with CY16. Deploying funds of USD 394.5 million with the central bank and inter-bank market played a significant role in this growth of assets. The share of loans and advances were 11.7 percent of the total assets which is 2.5 percentage points lower than that of the previous year. Notably loans and advances grew at the rate of 5.6 percent in CY17.

<sup>&</sup>lt;sup>42</sup>BB has refixed the CRR at 5.5 percent on bi-weekly average basis effective from 15 April 2018 (MPD Circular No. 01, dated 03 April 2018).

### **3.12.2 LIABILITIES STRUCTURE OF OVERSEAS BRANCHES**

In CY17, the total liabilities of the overseas branches increased by 31.5 percent in comparison with CY16.



Customer deposit accounts constituted 27.9 percent of the total liabilities of overseas branches of Bangladeshi banks. The amount of deposits slightly decreased by USD 7.9 million in CY17. On the other hand, nearly 72 percent of liabilities comprised of dues with the head office and branches abroad along with other liabilities. However, the share of assets and liabilities of overseas bank branches are still insignificant compared to the total banking sector assets and liabilities, possessing less than one percent of it.

### **3.12.3 PROFITABILITY OF OVERSEAS BRANCHES**

#### In 2017, the total aggregate net profit of the overseas branches increased slightly from that of 2016.

The aggregate net profit of the overseas branches<sup>43</sup> of Bangladeshi banks during CY17 was USD 6.8 million, which is only 0.1 million higher than that of CY16. As a result, ROA decreased from 1.3 percent to 1.1 percent for the year 2017. Two state-owned commercial banks with their six overseas branches contributed 82.0 percent of total overseas profit, whereas one private bank with one branch contributed 18.0 percent of total overseas profit.

Indeed, at the end of December 2017, overall financial position of overseas branches and their banking business did not create any systemic concern on the books of accounts of their parent banks in Bangladesh.

#### **3.13 ISLAMIC BANKING**

A total of 8 (eight) full-fledged Islamic banks are operating with 1120 branches in the banking system of Bangladesh. Moreover, 19 Islamic banking branches of 8 conventional banks and 31 Islamic banking windows of 7 conventional banks are providing Islamic banking services. These banks have been operating successfully over the last three decades with the idea of "equity based interest-free" banking, not as a separate component but as an alternative to conventional banks.

Islamic banking opens a new era of banking in the country's money market and attained an uninterrupted strong growth due to strong public demand since its inception in 1983. The achievement is fairly reflected with its steady growth in the market share. This branch of banking is also introducing various banking products and contributing to financing key sectors of the Bangladesh economy.

<sup>&</sup>lt;sup>43</sup>Balances denominated in foreign currencies are translated into USD and recorded at the exchange rate as on 31 December 2017 from the January 2017 issue of Monthly Economic Trend, Bangladesh Bank.

### **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)<sup>44</sup> and shareholders' equity. In the review year CY17, total investments growth was almost double of total deposit growth.



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

The persistent growth of Islamic banking sector is illustrated in Chart 3.53. It depicts that the growth of Islamic banking sector accelerated in CY17 compared to CY16. In CY17, Islamic banking assets increased by 17.3 percent (13.2 percent in CY16); investments (loans and advances) grew by 27.3 percent (10.6 percent in CY16), while the overall growth of loans of the banking industry was 18.9 percent. The liabilities also grew by 18.2 percent in CY17 (13.8 percent in CY16), mostly due to a positive growth in the deposit base of 15.6 percent (14.7 percent in CY16) compared to growth of 11.7 percent in the overall deposit base of the banking industry.

### **3.13.2 MARKET SHARE OF ISLAMIC BANKS**

#### Eight Islamic banks holds about one-fifth share of the banking system assets.



The aggregate market share of Islamic banks in CY17 (excluding Islamic banking branches/ windows of conventional banks) increased over CY16. At end-December 2017, Islamic banks possessed 19 percent (18 percent in CY16) of total assets, 15 percent (16 percent in CY16) of equity and 20 percent (19 percent in CY16) of liabilities of the overall banking system; whereas the investments (loans and advances) and deposits shared 23 and 20 percent respectively in CY17 which was almost same as CY16.

### **3.13.3 PROFITABILITY OF ISLAMIC BANKS**

## Though the net investment income was higher compared to industry, the net profit growth of Islamic banks' was lower than the industry average due to larger growth in investment expense and provision expense.

The growth of net profit of Islamic banks was 3.4 percent in CY17 compared to 18.1 percent growth in CY16. In contrast, the net profit of the overall banking system was increased by 14.4 percent in CY17 (4.9 percent in CY16).

<sup>44</sup>Islamic Shari'ah based banks term loans and advances as investments.



During CY17, Islamic banks contributed 19.2 percent of total industry profits. Investment income<sup>45</sup> to total assets ratio of Islamic banks reached 6.3 percent, which is higher than that of the industry average (interest income to total assets ratio was 5.1 percent).

On the other hand, non-investment income to total assets ratio was only 1.0 percent as compared with the industry average of 2.2 percent, representing a lower income from off-balance sheet (OBS) transactions and service and fee-based incomes.

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

The ROA of Islamic banks was 0.7 percent in CY17 (0.8 percent in CY16). However, ROA of the overall banking industry was 0.7 percent in CY17. On the other hand, the ROE of the Islamic banking group in CY17 stood at 13.1 percent (13.1 percent in CY16), which is higher than the overall banking industry's ROE of 10.4 percent.

### 3.13.4 ISLAMIC BANKS' LIQUIDITY

Islamic banks are found to have sufficient liquidity over the CY17 considering their Cash Reserve Ratio (CRR), Statutory Liquidity Requirement (SLR), 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 (daily basis) statutory liquidity requirement of CRR and SLR of 6.5 percent<sup>46</sup> and 5.5 percent of their total time and demand liabilities<sup>47</sup> respectively.

According to the roadmap towards implementation of Basel III, banks in Bangladesh 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<sup>48</sup> and the banks in Bangladesh have been maintaining these ratios successfully. It may be mentioned that LCR aims 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.



<sup>45</sup>For Islamic Shari'ah based banks investment income means income (interest) from investment (loans and advances).

<sup>46</sup>BB has re-fixed the CRR at 5.5 percent on bi-weekly average basis effective from 15 April 2018 (MPD Circular No. 01, dated 03 April 2018).

<sup>47</sup>Refer to MPD Circular No. 02, dated-10/12/2013, and MPD Circular No. 01, dated-23/06/2014.

<sup>48</sup>Refer to DOS Circular No. 01, dated 01/01/2015.

Chart 3.56 and 3.57 illustrate that Islamic banks as well as overall banking system consistently maintained the required level of LCR and NSFR throughout the calendar year 2017.

## The aggregate Investment-Deposit Ratio (IDR) of Islamic banks was 87.8 percent at end-December 2017 against permissible level of 90 percent, higher from 86.3 percent at end-December 2016.



The IDR of the Islamic banks was 87.8 percent which was lower than the maximum permissible level of 90 percent. However, the ADR of overall banking industry was 75.9 percent.

IDR of Islamic banks was an indication of adequate liquidity in these banks in CY17, as the IDRs were below the regulatory ceiling of 90 percent. With the objective of channeling excess liquidity into investment through Islamic bonds "Bangladesh Government Islami Investment Bond (Islami Bond) Policy, 2004" was amended with the initiative of Bangladesh Bank. The bonds will be inter-changeable among the eligible<sup>49</sup> individuals and institutions, and will also be used as an instrument for repo operations.

#### **3.13.5 CAPITAL POSITION OF ISLAMIC BANKS**

## Under the Basel III risk-based capital adequacy framework of Bangladesh, given the minimum Capital to Risk weighted Assets Ratio (CRAR) of 10 percent, seven out of eight full-fledged Islamic banks complied with the regulatory capital requirement in CY17.

The Basel Committee on Banking Supervision (BCBS) recommended raising the quality and quantity of regulatory capital to make the banks and the banking system more resilient and shock absorbent. In line with the international best practices, Bangladesh Bank introduced Capital to Risk Weighted Assets Ratio (CRAR) in its 'Guidelines on Risk Based Capital Adequacy, December 2014' and instructed the banks to maintain their CRAR to a fair ratio of at least 10 percent.



The stronger capital base maintained by Islamic banks indicates that these banks would remain resilient in the event of distress. Out of 8, 7 banks had CRARs more than 10 percent and 5 banks had CRAR more than 12 percent in CY17. However, from 2006, one Islamic bank's CRAR remained negative for historical massive cumulative loss and provision shortfall and the scenario did not change much despite change in its ownership. Indeed, the bank has been operating under a restructuring plan from 2008.

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

### **3.13.6 REMITTANCE MOBILIZATION BY ISLAMIC BANKS**

### Islamic banks in Bangladesh collected and mobilized more than one third of total wage earners' remittance in CY17, while holding one-fifths share of total banking sector assets.

Bangladesh belongs to one of the top 10 wage earners' remittance recipient countries in the world and in South Asian Region it is at top 5. Foreign remittance has already been emerged as a prime

<sup>49</sup>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.

driving force to the economic growth and poverty alleviation. Wage earners' remittance is the second highest source of foreign currency earning sector in Bangladesh next to export of readymade garments (RMG).



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 CY17, the total inward foreign remittance was BDT 1,089.3 billion, of which BDT 364.8 billion was collected and distributed by Islamic banks. This implies that the Islamic banks accounted for a 33.5 percent share of foreign remittances collected by the entire banking industry.

### **3.13.7 CLASSIFIED INVESTMENTS OF ISLAMIC BANKS**

"Islamic banks showed a better position regarding the classified investments to total investments ratio in the review year. The ratio was 4.2 percent, substantially lower than the industry score of 9.3 percent. Also, the ratio was slightly lower than the aggregate NPL ratio of the private commercial banks (PCBs)."



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

Islamic banks had slightly less NPL compared to their closest peer group (PCBs). The classified investment to total equity was 57.8 percent for Islamic banks, as compared with 81.6 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.

Islamic banks are less vulnerable to risks as they are able to 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.

### **3.14 PERFORMANCE OF NEW BANKS**

At end-December 2017, 10 new banks<sup>50</sup>, aggregately accounted for a small portion (3.9 percent) of the banking industry assets. Aggregate loans and advances of these banks were 72.5 percent of their total assets during the same period. The quality of assets of these banks remained considerably high in CY17 as their gross NPL ratio was 2.8 percent compared to industry average of 9.3 percent.

All the new banks are categorized as private commercial banks (PCBs) according to their ownership mode. Out of 10 new banks, one is offering Shariah banking and all 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 2017 accounted for 3.9 percent of the total industry assets while the same was 3.6 percent at end-December 2016.

<sup>&</sup>lt;sup>50</sup> Nine (9) banks incorporated in 2013 and the one in 2016.

The share of loans and advances of the new banks reached 4.4 percent of the overall industry's loans and advances at end-December 2017, while it was 4.2 percent at end-December 2016. 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 2017, loans and advances accounted for 72.5 percent of the total assets of these banks which was 68.7 percent at end-December 2016. The same ratio was 65.0 percent for the overall banking industry in the review year.

These new banks were operating with 378 branches including 198 rural branches at end-December 2017 against 351 branches at end-December 2016. Considering the number of bank branches under operation, new banks accounted for around 3.9 percent (378 out of 9752) of the banking industry at end-December 2017, while the ratio was 3.6 percent (351 out of 9654) at end-December 2016.

The quality of assets of the new banks as at end-December 2017 appeared to be higher as their gross NPL ratio was reasonably lower (2.8 percent) compared to the industry NPL ratio of 9.3 percent. The gross NPLs of the 9 new banks incorporated in 2013 and the banking industry as a whole were 0.96 percent and 9.2 percent respectively as at end-December 2016.

All these new banks were successfully maintaining their required provisions as at end-December 2017. The ratio of required provision maintained by the new banks was greater than 100 percent whereas the same ratio for the industry was 84.7 percent as at end-December 2017.



Source: DOS, computation: FSD, BB

The new banks performed with lower profitability in CY17 compared to CY16. In CY17, their net profit decreased almost 8.0 percent compared to CY16. However, their ROA in CY17 (0.9 percent) was higher than that of the banking industry (0.7 percent). The new banks' ROE decreased from 11.7 percent in CY16 to 9.4 percent in CY17, which was lower than industry ROE of 10.4 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 except Foreign Commercial Banks operating in the industry. CRAR of these banks remained 14.5 percent at end-December 2017 against 16.9 percent at end-December 2016. 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.



The new banks had lower liquidity compared to their peer group of PCBs and the banking industry as a whole at end-December 2017 as expressed by their ADR. The ADR of these new banks (91.33 percent) found higher than that of PCBs (84.7 percent) and overall industry (75.9 percent).

### **BOX 3.4: 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. 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)<sup>51</sup>, CFSI has been constructed for the financial system of Bangladesh. It 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<sup>52</sup> 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 and then combined under each sub-index assigning equal weights. Subsequently, CFSI has been prepared by aggregating the sub-indices with weights<sup>53</sup> as follows:

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

Where,

**BSI**<sub>t</sub> = 
$$\frac{\sum_{i=1}^{7} BS_{it}}{7}$$
; BS<sub>it</sub> refers to normalized value of the *i*<sup>th</sup> 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*<sup>th</sup> financial vulnerability (FV) indicator during

period t;

**RECI**<sub>t</sub>= $\frac{\sum_{k=1}^{2} RE_{kt}}{2}$ ;  $RE_{kt}$  refers to normalized value of the  $k^{\text{th}}$  regional economic (RE) indicator during period t,

(Continued)

<sup>&</sup>lt;sup>51</sup>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.

<sup>&</sup>lt;sup>52</sup>See Appendix XLI for the list of indicators.

<sup>&</sup>lt;sup>53</sup>Net trade, market capitalization and domestic credit of Bangladesh as percentage of GDP have been considered for assigning weights.
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 provided that the other relevant information is taken into consideration during analyzing the index.

The CFSI has been prepared using semi-annual data for the period ranging from December 2004 to December 2017 (Chart B3.4.1). It shows that the financial system of Bangladesh has been mostly stable during this period with minor stresses at some points of time.



Notes: Regime of CAR calculation 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 persistent 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, 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 CFSI during July-December 2011. During the first half of 2012, huge current account surplus was recorded and the banking system experienced a severe liquidity pressure in domestic money market as well as foreign exchange market. From the mid-2012, the CFSI eased down to the mean line till June 2013. During July-December 2013, CFSI demonstrated a small bump as the banking sector indicators improved after relaxation of the loan rescheduling policy and the value of BDT was under pressure of appreciation following a strong improvement in the current account balance. The CFSI along with the three sub-indices remained near the mean level indicating a relative stability of the Bangladesh financial system during the January 2014 - December 2015. During the first half of 2016, CFSI went down below the 2015 level due to the deteriorating performance of the banking sector and the capital market. In the second half, 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 significantly. During the first half of 2017, deterioration in current account balance along with a minor stress in asset quality and profitability of the banking sector was observed. During the second half of 2017, further depreciation of BDT against USD due to current account deficit helped pick up export earnings and wage earners' remittances; relaxation of provision maintenance by banks in few categories of loans and a sharp increase in credit growth resulted in improved asset quality and profitability in the banking sector. Overall the financial system in Bangladesh was mostly resilient in 2017.



## **BANKING SECTOR RISKS**

This chapter analyses various risk aspects of the banking sector in Bangladesh. Banks are categorized into five different groups considering their risk perspectives. Table 4.1 demonstrates the details of the bank groups and their share in total banking sector assets as of December 2017.

TABLE 4.1: GROUPING OF BANKS FOR THE PURPOSE OF RISK ANALYSIS							
Bank	Description of the group	Number	Share in total				
Group		of banks	banking sector assets				
Group 1	Private commercial banks (Long-standing conventional banks)	22	44.3%				
Group 2	State-owned and Private commercial banks under	10	28.7%				
	special attention <sup>54</sup>						
Group 3	Private commercial banks (Full-fledged Islamic banks)	7	19.2%				
Group 4	Foreign commercial banks	9	4.6%				
Group 5	Fourth generation <sup>55</sup> private commercial banks	9	3.2%				

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

#### 4.1 OVERALL RISK PROFILE OF THE BANKING SECTOR

Table 4.2 shows the trend in risk-weighted assets (RWA) density ratio, the ratio of RWA to total assets, of different groups of banks during the period 2013-2017<sup>56</sup>. It is evident that the ratio increased for bank group 2 and 4 in 2017 compared to the previous year. However, the ratio decreased for bank group 1 and 3 while the ratio remained almost stable for group 5. The higher density ratio reflects that banks expanded their banking activities towards more risky business. Therefore, group 4 and 5, and banks under special attention (included in group 2) could be more cautious while expanding their business portfolio.



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

<sup>54</sup>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.

<sup>56</sup>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.

<sup>&</sup>lt;sup>55</sup>Banks granted license in 2013 onward to operate as scheduled banks in Bangladesh (except one Islamic bank that is included in group 3).

#### 4.2 CREDIT RISK STRUCTURE IN BANKS<sup>57</sup>

Chart 4.1 shows the share of RWA attributed to credit, operational and market risks. The credit risk was 88.0 percent of the total RWA of the banking system as of December 2017, whereas the RWA associated with market and operational risks were 3.2 and 8.8 percent respectively. The chart also shows that 87.6 percent of the credit risk derived from balance sheet exposures. In 2017, RWA for credit risk as a ratio of total RWA increased by 0.8 percentage points while the same for market risk and operational risk decreased compared to the previous year.



Source: DOS, BB; computation: FSD, BB

The capital to risk weighted asset ratio (CRAR) of the banking system remained almost same as the previous year. The ratio was 10.8 percent as on 31st December 2017. It seems that the increase in credit risk did not affect much on the CRAR of the banking system in 2017.

The nominal value of RWA for credit risk was BDT 7,685.8 billion for both funded and non-funded credit exposures, while the value of RWA for market risk and operational risk were BDT 280.7 billion and BDT 768.2 billion respectively.

In CY17, credit risk of the top 5 banks accounted for 23.3 percent of the total credit risk of the banking sector, while about 40.4 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 2017 despite an increase in credit risk in the banking industry.

TABLE 4.3: CREDIT RISK UNDER BASEL III IN THE BANKING INDUSTRY					
		(As of end-December 2017)			
Banks	Share in industry credit risk	Share in industry overall risk <sup>1</sup>			
Top 5	23.3%	24.0%			
Тор 10	40.4%	40.9%			
All banks	100.0%	88.0%			

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

The group-wise analysis of credit risk (Table 4.4) reveals that group 1 (22 banks), possessing 44.3 percent of total assets, contained more than half of the industry credit risk (51.7 percent) and 45.4 percent of overall industry risk. Group 2 (10 banks), on the other hand, possessed 28.7 percent of the assets but contained about one-fifth of the industry credit risk (20.2 percent) and 17.8 percent of the

<sup>57</sup>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 r eason.

overall industry risk. The remaining groups (Islamic banks, 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 of the banking system was mostly concentrated in 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 2017)				
Bank Group	Share in industry credit risk	Share in industry overall risk <sup>58</sup>				
Group 1	51.7%	45.4%				
Group 2	20.2%	17.8%				
Group 3	18.8%	16.5%				
Group 4	5.6%	4.9%				
Group 5	3.7%	3.4%				
Total	100.0%	88.0%				

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

#### 4.3 MARKET RISK STRUCTURE<sup>59</sup>

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 foreign exchange risk and commodities risk in both the trading and banking book. Chart 4.2 illustrates the market risk structure at end-December 2017. RWA for market risk in total RWA decreased from 3.8 percent in CY16 to 3.2 percent in CY17. The nominal value of RWA for market risk also decreased during the same period. Equity price risk constituted the highest stake (51.5 percent) in the market risk structure in CY17 followed by interest rate risk 26.2 percent and foreign exchange rate risk 22.3 percent.



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

Table 4.5 demonstrates the group wise analyses of market risk in the banking system. The table shows that the group 1 with 22 banks and the group 2 with 10 banks were jointly exposed to about 91 percent of the total interest rate risk in the segment of market risk in CY17. The equity price risk of both the groups was 89.8 percent. Thus, long standing local private commercial banks and the state owned banks possessed most of the interest-rate related instruments and accounted for capital market investments of the banking system. Moreover, these banks contained almost 66 percent of the exchange rate risks in the system. However, the group 3, consisting of all the Islamic banks, possessed 25.2 percent of the exchange rate risks in CY17, which was 27 percent in CY16.

<sup>&</sup>lt;sup>58</sup>Total risk includes credit risk, market risk and operational risk.

<sup>&</sup>lt;sup>59</sup>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 DISS	ECTION OF MARKET RISK IN T	HE BANKING SYSTEM
			(As of end-December 2017)
Bank Group	Share in industry	Share in industry	Share in industry
	interest rate risk	equity price risk	exchange rate risk
Group 1	29.7%	56.3%	54.2%
Group 2	61.3%	33.5%	11.6%
Group 3	0.0%	8.1%	25.2%
Group 4	2.9%	0.0%	4.0%
Group 5	6.1%	2.1%	5.0%
Total	100.0%	100.00%	100.0%

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

The bank group 4 and group 5 consisting of foreign banks and fourth generation commercial banks respectively were less exposed to market risk in the banking system.

#### 4.3.1 INTEREST RATE RISK (IRR)<sup>60</sup>

The share of RWA attributed to interest rate risk (IRR) decreased to 0.8 percent of the total RWA of the banking system in 2017 which was 1.3 percent in 2016. However, IRR contributed 26.2 percent of the market RWA in CY17, which was almost the same as previous year. The bank's capital charge for interest rate risk was BDT 7.4 billion in CY17, which was BDT 9.8 billion in CY16, reflecting an improvement in terms of interest rate risk of the banking system. Table 4.6 shows that the top 5 banks contained almost 70.5 percent of industry interest rate risk. Three SCBs and two PCBs were ranked in the top 5 in terms of capital charges for IRR in the banking system. With comparison to CY16, Interest Rate Risk Weighted Asset to Industry's total Risk Weighted Asset for both top 5 banks and top 10 banks were increased in CY17.

TABLE 4.6: INTEREST RATE RISK IN THE BANKING SYSTEM						
			(As of end-December 2017)			
Banks	Interest rate risk	Share in market risk	Share in overall risk			
Top 5	70.5%	18.4%	0.6%			
Тор 10	86.8%	22.7%	0.7%			
All banks	100.00%	26.2%	0.8%			

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

#### 4.3.2 EXCHANGE RATE RISK<sup>61</sup>

The RWA assigned to exchange rate risk constituted 0.7 percent of the total RWA of the banking system while the share was 22.4 percent of the market risk as of December 2017. The banks' capital charge for exchange rate risk increased to BDT 6.3 billion at the end of December 2017 from BDT 5.5 billion at the end of December 2016. Table 4.7 shows top 10 banks were exposed to 58.7 percent of the industry's exchange rate risk while the top 5 banks were exposed to 39.2 percent.

<sup>&</sup>lt;sup>60</sup>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.

<sup>&</sup>lt;sup>61</sup>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 un-hedged exposure) or indirect loss in the firm's cash flows, assets, net profit and, in turn, its estimated market value of equity from an exchange rate movement.

TABLE 4.7: EXCHANGE RATE RISK IN THE BANKING SYSTEM						
			(As of end-December 2017)			
Banks	Exchange rate risk	Share in market risk	Share in overall risk			
Top 5	39.2%	8.8%	0.3%			
Тор 10	58.7%	13.1%	0.4%			
All banks	100.0%	22.4%	0.7%			

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

#### 4.3.3 EQUITY PRICE RISK<sup>62</sup>

The Risk weighted assets (RWA) assigned to equity price risk constituted 1.7 percent of the total RWA of the banking system while it was 51.5 percent of the total market risk as of December 2017. The banks' capital charge for equity price risk was BDT 14.5 billion at the end of December 2017, which was about BDT 0.2 billion lower than that of the previous year end. The top 10 banks contained 63.9 percent of industry's equity price risk originated from the movement of equity prices. The risk was 59.5 percent at the end of December 2016. It is notable that two SCBs and three 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 2017)			
Banks	Equity price risk	Share in market risk	Share in overall risk			
Тор 5	39.1%	20.2%	0.7%			
Тор 10	63.9%	32.9%	1.1%			
All banks	100.0%	51.5%	1.7%			

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

#### 4.4 OPERATIONAL RISK<sup>63</sup>

Risk weighted assets (RWA) assigned to operational risk constituted 8.8 percent of the total RWA of the banking industry at end-December 2017. It was 9.0 percent at end-December 2016. The banking industry charged BDT 76.8 billion as capital for operational risk as of December 2017. Table 4.9 shows the top 10 banks were exposed to 44.3 percent of the industry's operational risk in 2017. This exposure was closely aligned with their asset share in the industry, i.e., 42.4 percent. Considering the overall industry risk, the share of top 10 banks remained in the same level of operational risk in the past three years, i.e.; 4.1 percent in 2015, 4.0 percent in 2016 and 3.9 percent in 2017.

TABLE 4.9: OPERATIONAL RISK UNDER BASEL III IN THE BANKING INDUSTRY						
		(As of end-December 2017)				
Banks	Share in industry operational Risk	Share in industry overall risk				
Тор 5	27.8%	2.4%				
Тор 10	44.3%	3.9%				
All Banks	100.0%	8.8%				
Source: DOS_BB: computation: ESD_BB						

<sup>62</sup>Equity price risk is the potential 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.

<sup>63</sup>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 - the 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 depicts the group-wise operational risk for 2017. It reveals that half of the operational risk was confined within the bank group 1. However, the share of operational risk in the overall industry risk for the bank group 1 was only 4.4 percent. On the other hand, bank group 2 and 3 were exposed to 23.0 percent and 15.3 percent of the total operational risk respectively. The exposure to overall industry risk for group 2 and 3 were 2.0 percent and 1.3 percent respectively. However, the share of group 4 and 5 in both operational risk and overall industry risk were not very significant.

TABLE 4.10: GROUP WISE DISSECTION OF OPERATIONAL RISK IN THE BANKING SYSTEM						
		(As of end-December 2017)				
Bank Group	Share in industry operational risk	Share in overall industry risk				
Group 1	50.1%	4.4%				
Group 2	23.0%	2.0%				
Group 3	15.3%	1.3%				
Group 4	8.8%	0.8%				
Group 5	2.8%	0.2%				
Total	100.0%	8.8%				

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

#### **4.5 RISK MITIGANTS**

Banking sector's proportion of rated exposures increased for banks and financial institutions (FIs) and corporate sector in CY17. The proportion of best rated exposures (BB RG 1) also increased for both the sectors.

In line with the Basel III framework, Bangladesh Bank advised the banks in Bangladesh to adopt the standardized approach for computing credit and market risk, while the basic indicator-based approach is recommended for calculating operational risk. The standardized approach requires credit ratings of banks' corporate clients or entities by external credit assessment institutions (ECAIs) recommended by Bangladesh Bank (BB)<sup>64</sup>. As of December 2017, eight credit rating companies got licenses from Bangladesh Securities and Exchange Commission (BSEC), and were also accorded the status of ECAIs by BB. Moreover, banks are allowed to use the ratings of three international rating agencies - Fitch, Moody's, and Standard & Poor's for rating their exposures in abroad. In addition, in this case, banks may use the rating and risk weight as recognized by their home supervisors (if any) or risk scores published by the consensus of export credit agencies (ECAs) participating in the "Arrangement on Officially Supported Export Credits".



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

<sup>64</sup>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 have exposures to non-financial corporation's (NFC) and other banks and financial institutions (FIs). These exposures are 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.

The corporate exposure of the banking system was BDT 4,952.0 billion as of December 2017, of which 76.7 percent was rated, where 22.3 percent got the best rating of BB rating grade 1 (BB RG 1)<sup>65</sup>. The best rated exposures are higher in 2017 compared to the previous year 2016, where 72.5 percent exposures were rated, of which 20.2 percent carried BB RG1. The banking sector exposures to banks and FIs stood at BDT 1,064.5 billion in 2017 of which 89.6 percent were rated exposures to banks and FIs were 85.4 percent. In 2017, 48.2 percent of the rated exposures to banks and FIs received BB rating RG1 which is an improvement over the previous year 2016, where 38.7 percent exposures got similar ratings. Thus, banks' rated exposures to banks and FIs including the rating BB RG1 increased in CY17 reflecting a lower level of credit risk as well as systemic risk in the financial sector of Bangladesh.

In Bangladesh, banks mainly depend on collateral against the debt for mitigating credit risk where there is a possibility of increasing residual risks, such as 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 over collateral based operation if credit rating procedures are followed with due diligence.

#### **4.6 CREDIT RATING TRANSITION MATRIX**

A stable credit rating along with little downward migration of ratings was observed during 2016-17. This indicates the resilience of the financial system from the standpoint of corporate solvency. However, few ratings in the low rating categories suggest that poorly rated entities/exposures preferred to remain unrated rather than being rated with a poor score.

Table 4.11 demonstrates the credit rating transition matrix for 2016-17. It shows the transition or migration of entities/exposures from one rating category to another over the 4th quarter of two consecutive years, 2016 and 2017.

<sup>&</sup>lt;sup>65</sup>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.

TABLE 4.11: TRANSITION MATRIX 2016-17 <sup>66</sup>						
From 2016			To 201	7 rating*		
Rating*	1	2	3	4	5	6
1	64 (100.0%)	-	-	-	-	-
2	5 (2.7%)	179 (96.2%)	2 (1.1%)	-	-	-
3	3 (1.0%)	22 (7.3%)	270 (89.7%)	6 (2.0%)	-	-
4	4 (6.6%)	1 (1.6%)	17 (27.9%)	39 (63.9%)	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-

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

The matrix reveals a stable credit rating scenario where a higher percentage of entities maintained either their previous ratings or upgraded to higher rating categories. The magnitude of downward migration was low during 2016-17. It was 1.3 percent in 2016-17 compared to 1.8 percent in 2015-16. However, few ratings in the low rating categories (i.e., 4, 5 and 6) suggest that poorly rated entities/exposures could be preferred to remain unrated rather than being rated with a poor score, perhaps due to the application of lower risk weight to unrated exposures in the current Capital Adequacy framework. In the transition matrix, 7.3 percent of the entities migrated to higher rating categories in 2016-17 compared to 5.1 percent in 2015-16. It is a good sign that the number of upgraded entities was higher than that of downgraded entities during 2016-17. About 90.0 percent of the total entities secured a rating of three or higher in 2017 indicating a moderate level of credit risk in the financial system. The number of rated corporate entities analyzed increased from 389 in 2015-16 to 612 in 2016-17 because both entity wise and exposure wise long term ratings were considered in 2016-17, whereas only entity wise long term ratings under surveillance categories were considered in 2015-16.

TABLE 4.12: TRANSITION MATRIX 2015-16 <sup>67</sup>						
From 2015			<b>To 20</b> 1	6 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.

Table 4.12 shows a stable credit rating transition matrix for 2015-16 with few downward migrations indicating a stable and resilient financial system. As such, no immediate threat of credit risk shock in the financial sector originated from the credit exposures to the non-financial corporate entities. Despite some minor biases, the credit rating transition matrices constructed in the past few years suggest a trend of resilient financial system in Bangladesh.

<sup>66</sup>The analysis considers both entity-wise and exposure-wise long-term rating under surveillance category. The 4th quarter ratings of 612 entities/exposures of Argus, CRAB, CRISL, ACRL and NCRL were compared between 2017 and 2016. In earlier FSRs, only entity wise long term ratings were considered.

<sup>67</sup>The analysis considers only entity-wise long-term rating under surveillance category. The 4th quarter ratings of 389 entities of Argus, CRAB, CRISL, ACRL and NCRL were compared between 2016 and 2015.

#### **BOX 4.1: BANGLADESH SYSTEMIC RISK DASHBOARD (BSRD)**

Bangladesh Systemic Risk Dashboard is a semi-annual publication of Bangladesh Bank which contains a set of quantitative systemic risk indicators of the Bangladesh financial system summarizing key risk factors namely macro risk, credit risk, funding and liquidity risk, market risk, profitability and solvency risk and inter-linkages among them. The latest issue of July-December 2017 reveals the following key information:

#### 1. Macro risk dashboard

It offers a snapshot of current macroeconomic conditions incorporating current and forecasted real GDP growth, current account balance-to-GDP ratio, aggregate debt-to-GDP ratio, government debt-to-GDP ratio, government deficit-to-GDP ratio, household debt-to-gross disposable national income and NFC debt-to-GDP ratio. End-December 2017 data showed that aggregate debt-to-GDP ratio increased slightly. Domestic government debt constitutes a major portion of aggregate government debt including external debt. Current account balance-to-GDP ratio turned into negative since the second half of 2016.

#### 2. Credit risk dashboard

It gives an insight on credit risk factors combining annual growth rate of banks' loans to households, annual growth rate of FIs' loans to households, annual growth rate of banks' loans to private non-financial corporation (NFC), annual growth rate of NBFIs' loans to NFC, provision maintenance ratio of banks and FIs, gross non-performing loan ratio of banks and FIs, and changes in banks' credit standards for housing loans. The analysis shows that growth rate of banks' lending to households turned negative in December 2017 while the same to NFCs showed a positive trend. Compared to June 2017, provision maintenance ratios of banks recorded a minor decrease in December 2017 whereas the same for FIs slightly increased in December 2017. An overall net easing in banks' interest rates of housing sector loans was observed in December 2017.

#### 3. Funding and liquidity risk dashboard

It comprises a number of price-based indicators for measuring funding and liquidity conditions covering Bangladesh Bank's standing facilities, advance-to-deposit ratio, maturity profile (redemption profile) of banks outstanding debt securities (e.g. treasury bond, treasury bill) and subordinated debt. December 2017 based analysis showed that banks did not avail assured liquidity support (ALS) and special repo from Bangladesh Bank since December 2016. ADR slightly increased in 2017. Subordinated debt showed an increasing trend since 2015 and continued this trend till December 2017.

#### 4. Market risk dashboard

It identifies the market risk factors, quantifies the risk associated with equity market and develops strategies to address those. Indicators include price/earnings ratio, equity indices (DSEX, DSE30, DSES), call money market's weighted average, interest rate on borrowing and lending, scheduled banks' weighted average interest rate on deposits and advances, and weighted average exchange rate (BDT/USD). Equity indices showed a steady growth in the second half of 2017. Average call money borrowing and lending rates remained almost stable whereas spread between banks' lending and borrowing rates declined in December 2017. Exchange rate depreciated further in December 2017 as compared with the end-June 2017 position.

(Continued)

#### 5. Profitability and solvency risk dashboard

It measures the solvency and profitability indicators of banks and FIs. Profitability indicators include ROA, ROE, cost-to-income ratio, net interest income-to-total operating income ratio and solvency indicators constitute CET-1 to RWA ratio, non-performing loans to total loans and advances. Banks' profitability recorded a notable increase in December 2017. The proportion of net interest income in total operating income showed an upward trend at end-December 2017. Tier-1 capital to total risk-weighted asset ratio declined in December 2017 with respect to end-June 2017 ratio. Ratio of non-performing loans and advances to total loans and advances slightly decreased in December 2017 compared to end-June 2017.

Fls' profitability remained uptrend and recorded a significant increase in December 2017 from that of end-June 2017. Fls' net interest income to total operating income ratio increased moderately in December 2017. Tier-1 capital to total risk-weighted assets ratio remained mostly stable in December 2017 compared to end-June 2017 ratio. The ratio of non-performing loans and advances to total loans and advances decreased moderately in December 2017.

#### 6. Inter-linkages and composite measure of systemic risk dashboard

It comprises a set of synthetic indicators of systemic risk and measures inter-linkages across financial markets. This dashboard includes annual growth rate of banks' credit (gross) to government, annual growth rate of FIs' credit (gross) to government, annual growth rate of banks' loans to housing sector, annual growth rate of FIs' loans to housing sector, banks' loans to counterpart sectors, FIs' loans to counterpart sectors, banks' cross-border claims, and FIs' cross-border claims. December 2017 data shows that government borrowings from the banking sector demonstrated a declining trend. Banks' loan growth in residential housing sector showed an upward trend. Loan growth in commercial housing sector demonstrates high fluctuations over the years. The growth of FIs' loans to housing sector remained low since December 2014. Increase in banks' exposure to its major public and private counterparts has been mainly led by NFCs, accounted for more than seventy percent of total bank loans. Banks' cross-border claims remain low accounting for less than one percent of total assets of the banking sector. NFCs' borrowing is the major contributor in NBDCs' increasing loan portfolio, closely followed by an increasing loan exposure to households. Government borrowing from NBDCs was negligible.

In short, BSRD depicts symptoms of stress in different segments of the financial system, the build-up of risks in the real economy, factors which could increase credit risk at the systemic level, funding and liquidity conditions in the financial sector, market movements and investor risk appetite as well as focuses on the financial performance and solvency of key segments of the financial system, banking and FIs sectors in particular.



## **BANK AND FI RESILIENCE**

Bangladesh Bank (BB) conducts periodic stress tests to gauge the resilience of banks and FIs round the year under different extreme but plausible shock scenarios. This chapter contains the results of stress tests on banks and FIs as well as on the banking system based on the data of end-December 2017.

#### **5.1 BANKING SECTOR RESILIENCE**

A number of single factor sensitivity stress tests, covering shocks under 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) is compared with the minimum regulatory requirement of 10 percent<sup>68</sup>. Particular attention is paid to credit risk, which is the major risk in the banking sector.

Banking sector data reveals that, out of 57 scheduled banks, 48 have been able to meet the minimum regulatory requirement of CRAR of 10 percent while the CRAR of remaining 9 banks are found below the minimum regulatory requirement as at end-December 2017. It is noteworthy that, out of 9 under-capitalized banks, 5 found to have negative CRAR due to a cumulative loss and provision shortfall. Accordingly, Basel III compliance requires minimum capital requirement with required conservation buffer of 1.25 percent as of end-December 2017 to be 11.25 percent. As at end-December 2017, 46 banks found resilient with the minimum required regulatory capital as suggested under Basel III with capital conservation buffer.

#### 5.1.1 CREDIT RISK

A number of sensitivity tests for credit risk have been conducted to assess the impact of different shocks on banks' capital adequacy. Generally, the ratio of gross NPL<sup>69</sup> to total gross loans is taken as the main measure of credit risk based on the assumption 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)						
Before Stress Scenario	Gross NPL Batio	Required	Maintained CRAR			
	natio	Minimum CRAR	Chan			
Banking System	9.31	10.00	10.83			
Stress on Loans						
70	Gross NPL	Required	CRAR after shock			
Stress Scenarios":	Ratio	Minimum CRAR				
Shock-1: NPL increase by 3%	12.03		9.98			
Shock-2: NPL increase by 9%	17.47	10.00	7.83			
Shock-3: NPL increase by 15%	22.91		4.30			

Source: FSD,BB

In Chart 5.1, historical gross NPL ratios of 4 quarters of CY17 are illustrated with a black solid line and the red line shows the stressed NPL ratio of each quarter. Under the minor shock scenario, the banking sector's gross NPL ratio is likely to rise to the level of 12.03 percent from the current level of 9.31 percent. Consequently, the banking sector CRAR would be declined to the level of 9.98 percent.

<sup>68</sup>The results are based on the unaudited data for the calendar year ended at December 2017.

<sup>69</sup>NPL (Non-performing loan) means aggregate of loans in the substandard, doubtful, and bad/loss category.

<sup>70</sup>Shock-1, Shock-2, and Shock-3 stand for minor, moderate and major shocks respectively.



It also reveals that 4 out of 48 banks might become noncompliant in capital adequacy under stress scenario. Moreover, additional 02 banks would fail to comply with Basel III minimum required capital with capital conservation buffer (CCB) under NPL stressed scenario.

Source: FSD,BB

TABLE 5.2: STRESS TESTS FOR CREDIT RISK: DEFAULT OF LARGEST BORROWERS				
		(Percent)		
Before Stress Scenario	Required	Maintained		
	Minimum CRAR	CRAR		
Banking System	10.00	10.83		
Stress Scenarios:	After-Shock CRAR			
Shock-1: Top 3 largest borrowers	9.21			
Shock-2: Top 7 largest borrowers	7.63			
Shock-3: Top 10 largest borrowers	6	.58		

Source: FSD,BB

The second test has been conducted on the credit concentration risk of banks to examine the effect of default of top borrowers of individual banks. Banking system may not be able to withstand with bank-wise default of the top three largest individual/group borrowers. However, 19 out of 48 banks are likely to become noncompliant in capital adequacy. Moreover, additional 6 banks would fail to comply with the minimum required capital with capital conservation buffer while top 3 largest borrowers quality deteriorate to bad/loss grade.

TABLE 5.3: STRESS TESTS FOR CREDIT RISK: INCREASE IN NPL IN PARTICULAR SECTOR           (Percent)				
Before Stress Scenario	<b>Required Minimum CRAR</b>	Maintained CRAR		
Banking System	10.00	10.83		
Stress Scenarios:		After-Shock CRAR		
Shock-1: 3% of performing loan	10.75			
Shock-2: 9% of performing loans directly downgraded to bad/loss 10.60				
Shock-3: 15% of performing loar	10.45			

Source: FSD,BB

In the third test, shock has been applied to standard loans at end-December 2017 under selected business lines, e.g., 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. Although the SME sector/has the highest exposure with 19.70 percent of the total loans, the result reveals that the risk potential on top two largest business lines would be minimal. If an additional 3 percent of this sector's loans become non-performing (bad/loss), the banking sector's CRAR would likely to decrease to 10.75 percent, but it still remain

above the minimum regulatory requirement. Moreover, under this shock scenario, additional 2 banks would fail to maintain Basel III minimum required capital with capital conservation buffer.

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	10.83		
Stress Scenarios:		After-Shock CRAR		
Shock-1: 10% decline in the forced sale value of mortgaged collateral				
Shock-2: 20% decline in the forced sale value of mortgaged collateral 9.60				
Shock-3: 40% decline in the fore	ced sale value of mortgaged collateral	8.33		
5 550 00				

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 48 banks are likely to become noncompliant in capital adequacy.

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	10.83		
Stress Scenarios: After-Shock CRAR				
Shock-1: 5% negative shift in the NPLs categories10.19				
Shock-2: 10% negative shift in the NPLs categories 8.67				
Shock-3: 15% negative shift in t	he NPLs categories	7.35		

Source: FSD,BB

The fifth test assumes negative shifts in the existing NPL categories, due to some adverse events for the banks, which might result in more provision requirements. The standardized shocks are 5, 10 and 15 percent downward shift in the NPL categories (loans downgraded to one step lower). Resilience is tested for the minor level of shock where hypothetically 5 percent of the standard and special mention account (SMA) grade loans are downgraded to substandard, 5 percent of the substandard loans are downgraded to doubtful, and 5 percent of the doubtful loans are downgraded to the bad/loss category. It is observed that the minor level of shock may erode the capital of 2 banks below the minimum regulatory required capital.



Source: FSD,BB

The test results suggest that the credit shock is the most dominant shock in terms of its impact on CRAR. The sensitivity analysis on the banking sector's credit portfolio reveals that the banking sector is relatively less resilient with different types of credit shocks. When shocks are applied by defaulting 3 largest borrowers on the data of end-December 2017, 19 out of 48 banks would become noncompliant in maintaining minimum required capital. As a result of increase in NPL, 2 banks would fall short of minimum capital requirements and a combined credit shock, which is a summation of all shock under credit risk, would cause 9 banks to become noncompliant in maintaining minimum required capital. In brief, default of the top largest borrowers is likely to have the highest impact on the banks' resilience.

#### **5.1.2 LIQUIDITY RISK**

The liquidity stress test considers excessive<sup>71</sup> withdrawal of demand and time deposits both in local and foreign currency<sup>72</sup>. A bank is considered to be well-liquid if it can survive (after maintaining SLR<sup>73</sup>) up to 5 consecutive business days under a stressed situation. Standardized shocks are 2, 4 and 6 percent withdrawal of deposits, in excess of bank's normal withdrawal<sup>74</sup>. However, withdrawal is to be adjusted with available liquid assets (excluding SLR). The Farmers Bank Ltd. has been excluded from the test of liquidity stress for its restricted business and to generate an unbiased result of the banking sector as a whole.

TABLE 5.6: STRESS TESTS: LIQUIDITY RISK					
1		Stress Scenarios			
Liquian	y Stress: Consecutive 5 working days	5 working days Shock 1 Shock 2 Shock 3			
Day:1		1	1	1	
Day:2	Liquid or not (1=Yes, 0=Not)	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 liquidity stress scenarios of 2 to 6 percent additional withdrawal of deposits.

#### 5.1.3 MARKET RISK

The banking industry is found to be fairly resilient in the face of various market shocks<sup>75</sup>. Banking sector would not be noncompliant in attaining minimum required capital adequacy under the exchange rate shock. However, the CRAR of only one bank falls by 0.14 percent due to its excessive foreign currency holdings on the date when stress test applied. Interest rate shock and equity price shock affects only 2 banks which may become noncompliant in maintaining capital of regulatory requirement.

<sup>&</sup>lt;sup>71</sup>Higher than usual

<sup>&</sup>lt;sup>72</sup>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 in a situation of liquidity drain without resorting to liquidity from outside (other banks, financial institutions or central bank).

<sup>&</sup>lt;sup>73</sup>SLR= Statutory Liquidity Requirement.

<sup>&</sup>lt;sup>74</sup>Withdrawal means only deposit outflow.

<sup>&</sup>lt;sup>75</sup>Market risk shocks: Interest rate, exchange rate and equity price movements.

TABLE 5.7: STRESS TESTS: INTEREST RATE RISK (Percent)				
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR		
Banking System	10.00	10.83		
Stress Scenarios:	After-Shock CRAR			
Shock-1: 1% increase in interest rate	10.50			
Shock-2: 2% increase in interest rate	10.18	}		
Shock-3: 3% increase in interest rate	9.86			

Source: FSD,BB

TABLE 5.8: STRESS TESTS: EXCHANGE RATE RISK				
		(Percent)		
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR		
Banking System	10.00	10.83		
Stress Scenarios:		After-Shock CRAR		
Shock-1: Currency appreciation by 5%10.77				
Shock-2: Currency appreciation by 10% 10.72				
Shock-3: Currency appreciation 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	10.83		
Stress Scenarios:	After-Shock CRAR			
Shock-1: Fall in the equity prices by 10%	10.56			
Shock-2: Fall in the equity prices by 20%	6	10.30		
Shock-3: Fall in the equity prices by 40%	6	9.76		

Source: FSD,BB

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

#### **5.1.4 BANKING SECTOR RESILIENCE AT A GLANCE**

Banking sector demonstrates a mixed resilience under different stress scenarios. Banking system finds itself vulnerable with credit defaults, especially default of large NFCs, but remains resilient at interest rate, exchange rate and equity price shocks. However, stand-alone banks and the banking system would likely to remain resilient against liquidity stress scenarios.



Source: FSD, BB

#### **5.2 RESILIENCE OF THE FINANCIAL INSTITUTIONS**

Stress test is conducted on the financial institutions (FIs) to assess their resilience at standalone basis and on system wide as well with different shock events. The Weighted Average Resilience (WAR) of FIs is calculated based on the weights of 10 percent for interest rate, 60.0 percent for credit, 10.0 percent for equity price and 20.0 percent for liquidity with three levels of shock scenarios.

The NPL to loan ratio of FIs signifies the Infection Ratio. The Infection Ratio which completely erodes the regulatory capital of the FIs to zero level 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 of FIs are measured in a scale of 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. WAR-WIR Matrix expresses the overall financial strength and resilience of a FI by plotting its achieved ratings Matrix. The combined zonal position is set based on the weights of 80.0 percent on WAR and 20.0 percent on WIR.



Stress test results, based on the data of end-December 2017, reveal that 4 out of 33 FIs are positioned in green and 19 in yellow zone. Indeed, 23 FIs would have performed as resilient institutions during October-December 2017 quarter. On the other hand, 10 FIs are positioned in red zone during the same period. Overall, a majority of the FIs would remain resilient in the appearance of different shock scenarios.

The stress testing result reveals that the whole banking system (including FIs) would be resilient to different shock simulations. However, the

existence of few banks with double digit NPL ratio has been a source of risk to maintain the financial stability. Thus, 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 maintenance could be implemented to shield the banks and FIs from generating potential risks in that specific sector. Moreover, the guidelines on large exposures would be helpful in reducing risks on banks' exposures to large corporate or group as well as avoiding concentration of loans to specific group, specific sector or specific region. Monitoring of financial fragilities is essential to issue policies which could prevent or mitigate systemic risk.

Source: DFIM,BB



### **FINANCIAL INSTITUTIONS**

#### **6.1 INTRODUCTION**

Financial Institutions (FIs) are playing a significant role for promoting economic development of Bangladesh. The functions of FIs consist of leasing, term lending, equity financing, merchant banking, housing finance and venture capital financing. FIs provide multiple options to mobilize economy's savings mostly into the industrial sector. They are playing an active role for promoting manufacturing and service industries, agriculture, Micro, Small and Medium Enterprises (MSMEs), trade, housing, transport, information technology, and capital markets.

In Bangladesh, 34 FIs have operated as of end-December 2017. Among these institutions, 3 (Three) are government-owned, 19 (Nineteen) are privately-owned local companies, 2 (Two) are owned by local and foreign governments and the remaining 10 are established under joint venture with foreign participation. There are 255 branches of FIs running their business in Bangladesh as of December 2017. FIs are licensed and regulated under the Financial Institution Act 1993 and supervised by Bangladesh Bank following a risk-based supervisory system.

#### **6.2 PERFORMANCE OF FINANCIAL INSTITUTIONS**

Bangladesh Bank assesses the performances of FIs through its onsite and off-site supervision mechanism. Six major indicators are evaluated in the rating system for observing FIs performances that are capital adequacy, asset quality, management efficiency, earnings, liquidity and sensitivity to market risk. As of June 2017, about 17 institutions were at satisfactory level, 10 FIs were fair, and one institution was in strong rating position. Remaining FIs were within marginal and unsatisfactory position.

The key aspects of FIs may include their sources of funds, asset composition, asset quality, liquidity status and profitability.

#### **6.2.1 SOURCES OF FUNDS**

The sources of funds for FIs comprise of financial instruments, loans from banks and financial institutions, insurance companies and international agencies. In addition, deposits from different institutions and public are also the other sources of funds of FIs. Among them leading sources of total funds are credit and deposit from banks and some scheme deposits from public. Besides these, capital, bonds, call money, securitization etc. also constitute some portion of funding sources of FIs.



As of end-December 2017, deposits, borrowings and equity respectively constituted 61.2, 23.8, and 15.1 percent of the major funding sources which were 59.1, 24.4 and 16.5 percent respectively as of end-December 2016. It is mentionable that, in CY17 deposits, borrowings, and equity of FIs increased by 22.0, 14.5 and 7.7 percent respectively compared to those of the previous year.

#### **6.2.2 ASSETS COMPOSITION**



During CY17, total assets of all Fls stood at about BDT 841 million, increasing by 17.6 percent compared with that of CY16. Loans, cash and balances with banks/Fls, and leases were the major components of asset composition. The increase in loans and advances of the Fls compared to total assets were not significant during CY17.

The share of loans and leases to total assets was 73.1 percent as of end-December 2017 which was 74.8 percent as of end-December 2016. The loans constitute 63.4 percent individually of

total assets of the FIs whereas cash balance and leases possessed 15.4 and 9.7 percent respectively of total assets as of end-December 2017. Other components such as investments and all other assets (including fixed and non-financial assets) were 2.6 and 8.8 percent of total assets respectively.

BO	X 6.1: FIS' SECTOR-WISE LOANS AND	D LEASES AS OF END-L	DECEMBE	-R 2017
SL	Major sectors	Amount (in Billion BDT)	Percent	HHI*
1	Trade and Commerce	99.6	13.5%	182
2	Industry:			
	A) Garments and Knitwear	35.3	4.8%	23
	B) Textile	29.2	4.0%	16
	C) Jute and Jute-Products	2.9	0.4%	0
	D) Food Production and Processing Industry	26.6	3.6%	13
	E) Plastic Industry	8.5	1.2%	1
	F) Leather and Leather-Goods	2.5	0.3%	0
	G) Iron, Steel and Engineering	38.3	5.2%	27
	H) Pharmaceuticals and Chemicals	14.6	2.0%	4
	I) Cement and Allied Industry	9.8	1.3%	2
	J) Telecommunication and IT	14.3	1.9%	4
	K) Paper, Printing and Packaging	10.6	1.4%	2
	L) Glass, Glassware and Ceramic Industry	8.1	1.1%	1
	M) Ship Manufacturing Industry	4.0	0.5%	0
	N) Electronics and Electrical Products	6.4	0.9%	1
	O) Power, Gas, Water and Sanitary Service	58.1	7.9%	62
	P) Transport and Aviation	65.5	8.9%	79
3	Agriculture	19.3	2.6%	7
4	Housing	110.6	15.0%	225
5	Others			
	A) Merchant Banking	24.3	3.3%	11
	B) Margin Loan	12.6	1.7%	3
	C) Others	136.0	18.5%	342
	TOTAL	737.1	100.0%	1005
* பப	- Harfindahl, Hirschman Indox			

\* HHI = Herfindani–Hirschman Inde Source: DFIM, BB The calculated Herfindahl-Hirschman Index (HHI) indicates that FIs' loans and leases were moderately concentrated<sup>76</sup> during CY17. The two major sectors, i.e., housing sector and trade and commerce sector accounts for 15.0 and 13.5 percent respectively of total loans and leases on an individual basis.

#### 6.2.3 ASSET QUALITY

Fls' asset quality remained unchanged in CY17 compared to that of CY16. The ratio of non-performing loans and leases to total loans and leases stood at 7.3 percent in CY17 which was similar to the ratio in CY16. During CY17, loan loss provisions amounting to BDT 19.7 billion was maintained by Fls, against a regulatory requirement of BDT 24.6 billion, representing a coverage ratio<sup>77</sup> of 43.6 percent of non-performing loans and leases, 6.9 percentage points lower from what was recorded in CY16. Among the 34 Fls, 3 Fls could not maintain required provision, which eventually led to the provision shortfall of BDT 4.9 billion in the industry.





#### **6.2.4 PROFITABILITY**

The overall condition of profitability of the FIs as of December 2017 was better than that of 2016. FIs' profit before taxes increases by 41.5 percent in CY17 from the previous year, attributable to 90.9 percent increase in investment income, 31.5 percent increase in net interest income, 17.1 percent decrease in other operating income and 119.2 percent increase in income from commission and brokerage.

At the same time, operating expenses increased by 24.6 percent and loan loss provisions decreased by 0.3 percent and tax provisions increased by 5.6 percent compared with those of

the previous year. Consequently, the key profitability ratio lines- return on assets (ROA) and return on equity (ROE) became upward compared with that of the previous year. The ROA and the ROE was 1.1 percent and 7.9 percent respectively at end-December 2017.

<sup>76</sup>HHI lying between 1000-1800 points indicates moderate concentration.

<sup>77</sup>Coverage ratio = (Maintained loan-loss provision/Gross non-performing loans and leases)

#### **6.3 CAPITAL ADEQUACY**

FIs are required to maintain capital adequacy as per Basel II accord of Bangladesh Bank regulations. This enables the FIs to absorb shocks derived from any crisis or unusual situation.



#### **6.4 LIQUIDITY**



Source: DFIM,BB

The capital adequacy ratio (CAR), maintained in line with Basel II accord, was 13.5 percent at end-December 2017, compared to 16.6 percent (Revised) recorded at end-December 2016. Against the 19.5 percent increase of total risk weighted asset (RWA), total eligible capital decreased 2.7 percent in CY17 from the previous year.

The trend of CAR of FIs reflects a declining trend in CY17. Yet, the CAR depicts a strong position as it was well above the regulatory minimum requirement of 10.0 percent.

As of end-December 2017, the FIs sector maintained a 2.7 percent CRR and 20.6 percent SLR. The SLR maintained by FIs remained much higher than CY16. 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. This practice of upholding approved assets led the FIs to maintain a higher level of SLR than the required amount.

However, 05 (five) FIs were unable to maintain minimum CRR and 1(one) FI could not maintain minimum SLR as of end-December 201778. In

November 2017, the number of FIs failed to maintain minimum CRR was 02 (Two) and no FIs failed to maintain SLR in the same month.

In sum, the deposit and lending of FIs increased last year compared with the previous year where the equity position remained unchanged. The profitability of the FIs showed an upward trend last year compared with that of previous year. Though the overall CAR of FIs depicts a strong position according to the regulatory requirement, a declining trend has been observing in recent years. Liquidity position of FIs in line with regulatory requirements also upheld a good situation. The total number of FIs increased from 33 to 34 last year and number of branches throughout the country has increased as well. The overall condition of the FIs remained stable during CY17.

<sup>&</sup>lt;sup>78</sup>Fls, 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.

## **MONEY AND CAPITAL MARKET**

#### 7.1 MONEY MARKET

The money market in Bangladesh experienced a moderate liquidity pressure in 2017 as evident from an upward moving interbank repo and call money rate. Bangladesh Bank (BB) provided Repo facility on rare occasions. The Reverse Repo auction remained suspended since December 2015. However, BB bills were issued throughout the year for sterilization<sup>79</sup> purpose and also to achieve BB's monetary policy targets.

# Although BB bills were used heavily in the first quarter of 2017 for sterilization purpose, gradual decline in issuance of BB bills was observed during the rest of the year. Despite the introduction of 14-day treasury bills (T-bills), issuance of T-bills decreased during 2017.

In 2017, BB issued BB bills worth BDT 10,462.9 billion, which was 26.7 percent higher than that of the previous year. BB issued bills worth BDT 8,257.5 billion in 2016 for sterilization purpose as well as to manage liquidity in the banking system to keep reserve money growth in line with the program level. BB bills with different maturities such as 07, 14 and 30-day worth BDT 7,195.3 billion, BDT 2,806.6 billion and BDT 461.0 billion respectively were issued in 2017<sup>80</sup>.





In the first quarter of 2017, BDT 3,208.7 billion was mopped up from the financial system (Chart 7.1). However, the amount declined to BDT 2,339.1 billion in the last quarter of 2017 indicating prevalence of a lower level of liquidity in the market. This happened because less sterilization was required as the surplus current account balance turned into deficit in FY2017. The widening current account deficit had a contractionary impact on monetary growth. Moreover, recent surge in private sector credit growth moderated the excess liquidity prevailed throughout 2016.

The government introduced 14 day treasury bills (T-bills), in addition to the existing ones, in 2017 for better management of the public funds. T-bills with different maturities worth BDT 506.8 billion were issued in 2017, which was 3.1 percent lower than that of the previous year 2016. T-bills worth BDT 522.7 billion were issued in 2016. Large scale sales of national savings certificates (NSCs) had an impact on the sales of treasury securities.

<sup>79</sup>The central bank sells or purchases government and/or central bank securities to offset the impact of foreign exchange market intervention on the money supply.

<sup>80</sup>07 and 14-day BB bills were introduced in April 2016 mainly for sterilization purpose (DMD Circular No. 03, dated 05 April 2016).

T-bills with maturities of 14, 91, 182 and 364 day worth BDT 10.0 billion, BDT 271.7 billion, BDT 134.4 billion and BDT 90.6 billion respectively were issued in 2017 (Chart 7.2).

#### 7.1.1 REPO WITH BANGLADESH BANK

## The financial system did not seem to face any abrupt liquidity pressure as BB's repo facility was used only occasionally.



In 2017, banks and/or FIs did not enter into any special repo and reverse repo arrangement with BB. However, they availed liquidity support facility (LSF) worth BDT 3.0 billion in August 2017 and repo facility worth BDT 1.9 billion in November 2017 (Chart 7.3) indicating adequate liquidity in the financial system throughout the most part of 2017. It is to mention that, in 2016, LSF and special repo worth BDT 3.0 billion and BDT 11.2 billion respectively were utilized. Importantly, banks and FIs managed their liquidity from call money market instead of repo with BB since BB's repo rate was higher than the call money rate.

#### 7.1.2 INTERBANK REPO

# The volume of interbank repo transactions remained low throughout 2017. However, the interbank repo rate<sup>81</sup> increased by 90 basis points from January 2017 to December 2017 indicating a mild liquidity stress in the market.

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



Overall interbank repo transactions, which amounted to BDT 1,808.6 billion in 2017, showed a 44.8 percent decline compared to the amount of BDT 3,278.3 billion in 2016. However, the interbank repo rate demonstrated an upward trend in the end of 2017 reaching about 4.0 percent in December 2017 (Chart 7.4) from 3.1 percent in December 2016. This also indicates moderation of excess liquidity during 2017 which prevailed throughout 2016.

The declining trend in interbank repo is consistent with the trend in the issuance of government treasury securities.<sup>82</sup> Since

interbank repo transactions are collateral based and government securities comprise bulk of those collaterals, adequate supply of government securities is required for smooth functioning of this market. Nevertheless, an active call money market, where uncollateralized transactions take place, plays a significant role in liquidity management of the financial system in Bangladesh.

<sup>81</sup>Monthly weighted average interbank repo rate.

<sup>&</sup>lt;sup>82</sup>Issuance of treasury securities worth BDT 1,004.2 billion, BDT 774.6 billion, BDT 710.2 billion and BDT 695.6 billion in 2014, 2015, 2016 and 2017 respectively (Source: BB website).

#### 7.1.3 INTERBANK CALL MONEY<sup>83</sup> AND INTERBANK DEPOSIT MARKET

## An increased activity in the interbank call money and interbank deposit market was observed along with a rise in call money rate in 2017.

The call money market plays a significant role in day-to-day liquidity management of the financial sector in Bangladesh. The call money rate, unlike the interbank reporte, includes a risk premium for being an unsecured type of instrument.

In 2017, the annual average call money rate showed an upward trend. It increased to 3.8 percent, which is 10 bps higher than that of the previous year (3.7 percent in 2016). During 2017, the monthly average call money rate fluctuated and reached 3.9 percent in December 2017 (Chart 7.5).



In 2017, total volume of call borrowing was BDT 773.3 billion, which is 42.8 percent higher than that of 2016 (BDT 541.4 billion). In which banks' borrowing was BDT 632.4 billion, 56.5 percent higher than BDT 404.2 billion of 2016. Due to recent pickup in private sector credit growth which outpaced deposit growth and moderated excess liquidity in the banking system, banks' increased demand for fund was reflected in the call money market.

The FIs, on average, borrowed 18.8 percent of the total fund of the call money market in 2017. The call money market was heavily concentrated as only 6 (six) banks supplied 77.3

percent of the total volume of call money lending as of December 2017. On the other hand, top 9 (nine) borrowers accumulated 50.9 percent of the total available call funds. State-owned commercial banks (SCBs) were the top lenders in the call money market in 2017 with a share of 55.9 percent while PCBs remained top borrowers with a share of 67.6 percent at end-December 2017.

The interbank deposit market<sup>84</sup> was not as concentrated as the call money market in 2017. SCBs were the top deposit providers while PCBs were the top deposit receivers. Fls also secured a significant portion of the interbank deposit market. No single bank or cluster of banks dominated either the demand or supply side of this market. The total volume of this market at end-December 2017 reached BDT 635.9 billion, which is 52.9 percent higher than that of the previous year (BDT 416.0 billion). This increased interbank deposits helped liquidity management of the financial system in 2017.

#### 7.2 BOND MARKET

A vibrant bond market is essential for developing an efficient and competitive financial system in Bangladesh, particularly in the backdrop of the current liquidity situation of the banking sector. Bond is basically a debt instrument which can be used as an alternative to bank finance. Therefore, promotion of corporate bond issuance in the capital market can be considered as a comfortable solution of the current demand for medium and long-term investment financing. Businesses are continuing to depend on bank finance indeed.

In 2017, long-term treasury bonds worth BDT 188.9 billion were issued, which was 0.8 percent higher than that of 2016. Although the amount of issuance of T-bonds auction sales was almost the same as that of the previous year, the preference shifted towards the longer term bonds.

<sup>&</sup>lt;sup>83</sup>Interbank call money only includes exposures of scheduled banks and FIs with one another. Assets or liabilities with nonscheduled financial institutions are excluded from this discussion.

<sup>&</sup>lt;sup>84</sup>Any local currency deposit that is held by one bank for another bank.

Table 7.1 shows that sales of short-term 2-year and 5-year T-bonds decreased from 21 percent and 31 percent in 2016 to 13 percent and 21 percent in 2017 respectively. On the other hand, sales of 15-year and 20-year T-bonds increased from 11 percent and 13 percent in 2016 to 20 percent and 21 percent in 2017 respectively.

Chart 7.6 shows the volume of treasury bond sales in 2017 for different maturities. Out of the total issuance, 10, 15 and 20 years treasury bonds held 25 percent (BDT 47.9 billion), 20 percent (BDT 37.9 billion) and 21 percent (BDT 39.5 billion) share respectively.

TABLE 7.1: COMPARATIVE PICTURE OF T-BONDS AUCTION SALES OF 2016 AND 2017					
Tenure	Va (Billio	lue n BDT)	% of total auction sales		
	2017	2016	2017	2016	
2 Y T-Bonds	24.0	39.4	13%	21%	
5 Y T-Bonds	39.6	57.7	21%	31%	
10 Y T-Bonds	47.9	45.2	25%	24%	
15 Y T-Bonds	37.9	20.7	20%	11%	
20 Y T-Bonds	39.5	24.5	21%	13%	
Total	188.9	187.5	100%	100%	

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



Chart 7.7 reveals that monthly outstanding of treasury bonds held by non-resident investors dropped by BDT 200.0 million in December 2017 from the outstanding holding of November 2017. Earlier, the holding amount slumped by almost BDT 350.0 million in March 2017 from the amount outstanding in February 2017. This downtrend implies non-residents' caution in investing in the securities market of Bangladesh.

Chart 7.8 demonstrates the mandatory devolvement of treasury securities during the calendar year 2017. In terms of primary auction sales, no mandatory devolvement on PDs and Non-PDs was observed in 2017. However, devolvement on BB was BDT 22.3 billion in 2017 which was 52.3 percent lower than that of the previous year.



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

The volume of over-the-counter (OTC) transactions of treasury securities exhibited a 16.3 percent drop in 2017 compared with that of the previous year. The total volume of treasury securities traded in the secondary market was BDT 282.9 billion in 2017, against BDT 257.0 billion in 2016. Chart 7.9 depicts the trend in monthly OTC trade in 2017. Spikes were observed in February, June and December 2017 where the trading volumes were BDT 34.2 billion, BDT 31.4 billion and BDT 36.8 billion respectively. However, trading volume was the lowest in October 2017 worth BDT 2.7 billion.

#### **BOX 7.1: YIELD CURVE**

The treasury auction yield curve exhibited an upward trend in both short- and long-term yields in December 2017 compared to that of June 2017 and December 2016.



Source: Major Economic Indicators, January 2018 Issue, BB. Note: There was no auction of 2-year treasury bond in December 2016; therefore, November 2016 data was used.

The T-bill yield curve showed a smooth upward shift for short-term T-bills, while the upward shift became more prominent along with the increase in bond duration. Overall, both the yield curves depicted a regular shape signifying a natural expectation of economic growth of the economy.

#### 7.3 STOCK MARKET

The capital market in Bangladesh remained growing during the calendar year 2017. Different indicators, such as, index value, market capitalization, turnover and volume increased at the Dhaka Stock Exchange (DSE), the prime bourse in Bangladesh.

DSE Broad index (DSEX) increased by 24 percent in 2017. The market capitalization of DSE stood at BDT 4,228.9 billion at the end of 2017, which is about 23.9 percent higher than that of the previous year-end balance of BDT 3,412.4 billion. Total issued capital increased to BDT 1,194.1 billion in 2017 from BDT 1,145.3 billion of 2016, recording a 4.3 percent growth over the period. The turnover velocity ratio increased to 51.3 percent in 2017, a significant increase compared to 34.9 percent in 2016. The P/E ratio was also rebounded in 2017 after a decreasing trend since 2014 which could largely be attributable to demutualization of the DSE.

#### 7.3.1 MAJOR INDEX AND MARKET CAPITALIZATION

Chart 7.10 shows that the DSE broad index (DSEX) had been in an upward rally throughout 2017 amid some troughs and peaks. The market capitalization also went up hand-in-hand with the index all through the year 2017. The highest and lowest values of the index observed were 6,336.9 on 26th November 2017 and 5,083.9 on 1st January 2017 respectively. The DSEX reached its highest point in 2017 during the last five years (Chart 7.11).



Source: DSE



Total market capitalization as a percentage of GDP is an important indicator of stock market deepening. Chart 7.12 shows that the market capitalization-GDP ratio rebounded to 21.6 percent in December 2017 as opposed to 19.7 percent of December 2016. This happened due to higher growth in market capitalization. During the last decade, nominal GDP displayed an upward trend while market capitalization demonstrated a fluctuation.

Source: DSE

Note: June based GDP data is used as a proxy for December in calculating the ratio.

#### 7.3.2 TURNOVER RATIO

Traded turnover to market capitalization, also known as turnover velocity ratio, is an indicator of liquidity in stock market.



Investors prefer high turnover velocity ratio as it indicates better liquidity. The trend in turnover velocity ratio during the calendar year 2017 indicated better liquidity situation in the capital market. Chart 7.13 shows that the turnover velocity ratio increased to 51.3 percent in 2017 compared to 34.9 percent in 2016. Consequently, impact cost decreased and, eventually price volatility declined during 2017.

Chart 7.14 shows the daily turnover had been gradually falling throughout the year 2017. This indicates that the market liquidity had been gradually tighter as the year approached to the

end. Chart 7.15 shows that the turnover to market capitalization ratio also reflects gradual tighter liquidity condition. The highest and lowest value of the ratio observed 0.6 percent on 23 January 2017 and 0.1 percent on 17 December 2017.



#### 7.3.3 MARKET CAPITALIZATION DECOMPOSITION

Chart 7.16 and 7.17 compare the sectoral share in market capitalization in 2016 and 2017 respectively. The manufacturing sector dominated the market capitalization in 2017 capturing 36.7 percent of the total market share while the service and miscellaneous sector remained at the same level of 2016, i.e. 33.5 percent claiming the second largest share. The market share of the financial sector increased from 25.6 percent in 2016 to 29.7 percent in 2017. Basically, higher growth in banks and Fls' market capitalization contributed to the significant rise in financial sector market capitalization. The growth of market capitalization of banks and Fls increased by 55 percent and 52 percent respectively in 2017, compared to the corresponding positions of 2016.



Source: DSE

It is evident from Charts 7.16 and 7.17 that the market share of manufacturing sector declined by 410 bps while the share of financial sector increased by 410 bps in 2017. The market share of services and miscellaneous sector remained unchanged in 2017. The corporate bond sector contracted by 5 bps during the same period.

#### 7.3.4 PRICE-EARNINGS (P/E) RATIO

The price earnings (P/E) ratio, i.e. the current market price of the stock divided by its earnings per share (EPS) shows how much investors are paying for each unit of earnings. The market P/E ratio shows whether the market is overvalued or undervalued.



The overall weighted average price-earnings (P/E) ratio of the DSE was 17.3 in December 2017, which was 300 bps higher than that of December 2016. The increase in P/E ratio indicates that the investors would be optimistic about the future growth of the listed companies. As depicted in Chart 7.18, market P/E ratio recorded an upward trend throughout the year 2017.

Source: DSE

## Chapter 8

## FINANCIAL INFRASTRUCTURE

An efficient and robust financial infrastructure is capable of containing systemic risk. Payment systems infrastructure can play a pivotal role in that respect. Payment systems are at the core of financial infrastructure which demand proper designing and meticulous operation to ensure safety as well as efficiency of the system. Bangladesh Bank is continuously engaged in modernising the payment landscape of Bangladesh by introducing state-of-the-art payment platforms and instruments for implementing the monetary policy effectively and thus leading the economy to be more vibrant. Transactions through Bangladesh Automated Cheque Processing System (BACPS), Bangladesh Electronic Funds Transfer Network (BEFTN) and Mobile Financial Services (MFS) are growing in tandem with economic expansion. Bangladesh Bank is working diligently to incorporate safer and sophisticated technologies to ensure secured execution of transactions through electronic systems.

#### 8.1 NATIONAL PAYMENT SWITCH BANGLADESH (NPSB)

National Payment Switch Bangladesh (NPSB) is an electronic platform, started its operation in aiming to facilitate acceleration of inter-bank electronic payments and the expansion of retail payment network substantially since its inception in December 2012. In CY17, approximately 17 million transactions amounting BDT 104 billion has been settled through NPSB showing a growth of 60 percent and 50 percent in number of transactions and amount of payments.

NPSB facilitates the interbank electronic payments from Automated Teller Machines (ATM), Point of Sales (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 51 banks, interbank POS transactions of 48 banks and Internet Banking Fund Transfer (IBFT) transactions of 6 banks are being routed through NPSB.

#### 8.2 BANGLADESH AUTOMATED CHEQUE PROCESSING SYSTEM (BACPS)



*High Value transactions from CY16 to CY17 increased by 13 percent. During the same period Regular Value transactions increased by 14.5 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)85.

<sup>85</sup>Cheques of amount BDT 500,000 or above represent as HV and below of BDT 500,000 represent as RV.

The total amount of High Value (HV) and Regular Value (RV) instruments amounting approximately BDT 12,969.2 billion and BDT 7,462.5 billion respectively were cleared in the CY17. Chart 8.1 depicts 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 CY14 to CY17 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 33.4 percent in CY17 for credit transactions and 53.4 percent for debit transactions with respect to the previous year.

Bangladesh Electronic Funds Transfer Network (BEFTN) is a central clearing system, operated by Bangladesh Bank that receives entries from Originating Banks (OB), distributes the entries to appropriate Receiving Banks (RBs) and facilitates the settlement functions for the participating banks. BEFTN has started its live operation on 28<sup>th</sup> February 2011 with the objective of decreasing paper based instrument and increase electronic payment method.

EFT entry may be debit entry and credit entry. EFT credit entries occur when an originator initiates a transfer to move funds into a receiver's account. In an EFT debit transaction, funds flow in the opposite direction to the information. Funds are collected from receiver's account and transferred to an originator's account, even though the originator initiates the entry. Entries must be submitted within 24 hours and settled 10.00 A.M. next day. The system generates reports and sends to participating banks automatically though BEFTN. The debit entry return must be sent within 24 hours and credit entry return must be sent within 48 hours.

BEFTN transaction is increasing day by day. Salary of more than 28 ministries and government offices are paid now through EFT. Listed public companies are paying their cash dividends through EFT network. In CY17, on an average, approximately 51,064 transactions were settled per day, which is 24 percent higher than that of CY16. Approximately 18.6 million BEFTN transactions having total value of BDT 1,333.6 billion were processed during the CY17 which was 35.2 percent (in amount) higher than that of 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 CY17.

Bangladesh Bank (BB) permitted Mobile Financial Services in Bangladesh from 2010, while BB issued the "Guidelines on Mobile Financial Services (MFS) 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)						
SI. No.	Particular	End-2015	End-2016	End-2017		
1	No. of banks permitted for MFS	28	19	18		
2	No. of banks commenced services	18	17	18		
3	No. of agents	561,189	710,026	777,179		
4	No. of registered clients (in million)	31.9	41.1	58.6		
5	No. of live accounts (in million)	13.2	15.9	23.1		
6	Total no. of transactions (in million)	1,166.1	1,473.2	1,876.0		
7	Total transaction in amount (in million BDT)	1,577,740	2,346,920	3,147,000		

Source: PSD, BB

The number of banks permitted for MFS reduced to 18 as of end-December 2017 due to non-compliance of regulatory standards and some other reasons. However, both the number and volume of transactions through MFS increased moderately in 2017. The number of both registered and live accounts also increased in this year.



The growth of MFS was moderate in CY17, 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/4G 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 operators' outlets, person to business payments i.e. utility bill payments, merchant payments; 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-on-year (CY16 to CY17) growth of volume of transactions through MFS portrayed in the following table:

TABLE 8.2: CATEGORY-WISE GROWTH OF MFS (In millio					
Category	CY16	CY17	Growth (%)		
Inward Remittance	747.1	841.0	12.6%		
Cash In	1,000,187.4	1,326,612.8	32.6%		
Cash Out	902,224.4	1,202,220.0	33.3%		
P2P	351,243.3	471,564.6	34.3%		
Salary Disbursement (B2P)	24,550.2	45,992.3	87.3%		
Utility Bill Payment (P2B)	22,865.5	25,464.4	11.4%		
Others	45,041.4	73,154.7	62.4%		

Source: PSD, BB; compilation FSD, BB.

The table shows that salary disbursement of mostly RMG workers gained massive growth in CY17 compared with the volume of transactions in CY16. 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 CY17 with higher volume of card-based transactions.

Electronic banking refers to the banking environment in which banking information as well as transactions moved and conducted through electronic medium. It includes any technology that enables a bank to do business electronically. Electronic banking has different aspects like internet banking, online banking and e-payment. In Bangladesh, all of the 57 banks have at least one online branch in which 36 banks have internet banking services as of end-December 2017.

TABLE 8.3: ONLINE BANKING SCENARIO AS AT END-DECEMBER , 2017				
Type of Bank	No. of ATMs	No. of Total Branches	No. of Branches with Online Coverage	% of Online Branches
SCBs	204	3,732	3,004	80.5
SDBs	0	1,410	70	5.0
PCBs	9,763	4,826	4,825	100.0
FCBs	168	66	66	100.0
Total	10,135	10,034	7,965	79.4

Source: Sustainable Finance Department, BB



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 CY13 to CY17. Volume of transactions using ATMs has been rising fast since CY13. Debit card usage showed an increasing trend while moderate growth observed for credit cards and internet banking. Debit card users increased by 17.1 percent while credit card users decreased by 4.1 percent during CY17.

#### **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 345 full-fledged DPs, 4 full-fledged exchange DPs, 95 custodian DPs and 44 treasury DPs registered under CDBL. In addition, there are 386 issuers and 382 International

Securities Identification Numbers (ISINs) registered under CDBL. The number of active BO accounts as of end-December 2017 stood at around 2.8 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 CY17, it has settled approximately BDT 20,063.9 billion.

Bangladesh Bank is committed to provide a safe, efficient, inclusive and authorized payment and settlement system for the country. The introduction of the Real Time Gross Settlement (RTGS) system, in CY15, is another milestone of the country's financial sector development. 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 CY17, it has settled approximately 785,290 transactions amounting to BDT 20,063.9 billion. A total of 7,000 online branches of 57 scheduled banks are currently connected to RTGS system out of total 11,000 bank branches in the country. Using this system, the settlements of BDT 100,000 (One hundred thousand) or above between the participating banks are being settled instantly.

#### 8.8 RECENT AND UPCOMING DEVELOPMENTS

Over the past few years, the payment landscape of the financial sector of Bangladesh has been changed dramatically. Timely adoption of modern technology based solutions for both retail and large value payments has revolutionized the whole payment system of the country. Successful adoption of new payment channels including new ideas has enabled Bangladesh Bank to establish a payment highway for the nation. These new payment alternatives provide the user a perception of safety and comfort along with reducing the cost of business.

#### **Online Payment Gateway Service**

Several private sector banks and couple of technology companies have established gateway for providing payment services to e-commerce entrepreneurs in the country. These gateways enabled the e-merchants to receive their sales proceeds through the internet from domestic and international buyers.

In view of the growing role of the services provided by the Online Payment Gateway Service Providers (OPGSPs), it has been decided to allow the Authorized Dealers (ADs) to offer the facility of repatriation of remittances against small value service exports in non-physical form such as data entry/data process, off-shore IT service, business process outsourcing etc. Under this initiative, the exporters of the above services will be able to receive their overseas payments through the OPGSPs such as Paypal, Money Bookers, Best Payment Gateway and Virtual Pay online platforms.

Bangladesh Bank has finalized the draft Payment and Settlement Systems Act 2017 which is now under process to be sent to the respective ministry for approval. BB is working closely with the government organizations for introducing online VAT payment system. In this continuation, a new initiative has been undertaken with IFC of the World Bank Group.

BB has permitted 6 banks including Sonali Bank Ltd and Rupali Bank Ltd to collect inward remittance through PayPal, a well-known payment service provider in the world. PayPal in Bangladesh is expected to increase freelancers, create new entrepreneurs, increase foreign remittance, and ultimately boost up the GDP.

#### **Payment Systems Oversight**

Oversight of payment system becomes one of the most important functions of Bangladesh Bank, as without proper monitoring and supervision the safety and efficiency of any payment systems can be threatened and may lead to unmanageable vulnerabilities to the economy.

Payment systems oversight concentrates on both the Retail Payment Segments (such as- cheque clearing, EFT, Card Payment system, MFS, internet banking etc) and the Large Value Payment Segment (such as RTGS) along with all the payment instruments and participants (banks and PSOs including their third party service partners, PSPs etc).

Besides their regular activities, payment system oversight does some ad hoc activities such asconducting assessments of the overseen systems and of their compliance with the applicable standards in the event of disruptions in service levels, monitoring new developments, new features of the system, etc.

The followings are some further upcoming developments in payment system infrastructure:

**BACH2:** Inter-bank Clearing & settlement of Cheques on both local and foreign currencies inside the country. Also including multi session EFT transaction.

MFS Interoperability: Any MFS user can send money to other MFS users.

eGP: Electronic Government Payment. (All types of government collection done though the system)

**EMV standardization:** It is a chip based standardization process of all local cards. EMV stands for Europay, MasterCard, and Visa, the three companies that originally created the standard. "EMV<sup>®</sup> is a global standard for credit and debit payment cards based on chip card technology" taking its name from the card schemes Europay, MasterCard, and Visa - the original card schemes that developed it. The standard covers the processing of credit and debit card payments using a card that contains a microprocessor chip.

**PCI-DSS:** PCI DSS 12 requirements is a set of security controls that businesses are required to implement to protect credit card data and comply with the Payment Card Industry Data Security Standard (PCI DSS). The requirements were developed and are maintained by the Payment Card Industry (PCI) Security Standards Council.

**Digital Wallet:** A digital wallet refers to an electronic device that allows an individual to make electronic transactions. This can include purchasing items on-line with a computer or using a smart phone to purchase something at a store. An individual's bank account can also be linked to the digital wallet. BB has already given license to iPay to provide digital wallet service all over the country.

#### **Cautionary Notice on Cryptocurrency:**

Bangladesh Bank has asked the citizens in a circular on its website to refrain from performing, assisting and advertising all kind of transactions through the virtual crypto currencies like Bitcoin to avoid financial and legal damages. The circular stipulates that Bitcoin is not an authorised and legal currency in any other countries in the world. "Transaction with this currency may cause a violation of the existing money laundering and terrorist financing regulations," the circular further adds.
## FOREIGN EXCHANGE MARKET

#### The foreign exchange (FX) market was moderately stable in CY17 compared to the preceding years.

The Bangladesh Taka (BDT) was in a depreciating trend against the US Dollar (USD) throughout the year. The REER also depreciated which contributed to enhancing the country's export competitiveness. Throughout the year, import L/C worth USD 46.5 billion was settled and import L/C worth USD 65.3 billion was opened; settlement of USD 25.9 billion against the import L/C opened in CY17 and deferring the rest helped to maintain stability in FX reserve. During the period, wage earners' remittance slightly declined. Bangladesh Bank (BB) sold USD 1.2 billion in CY17 in the domestic FX market, as an indirect measure, to keep the exchange rate as well as the FX market stable.

#### 9.1 FOREIGN EXCHANGE ASSETS AND LIABILITIES

FX denominated assets and liabilities of banks found insignificant compared to the aggregate assets and liabilities of the banking sector of Bangladesh financial system. However, the FX market plays a significant role by facilitating international trade and finance. Bangladesh Bank, authorized dealers and customers are the major stakeholders in this market. Besides, as regulatory authority (empowered by Foreign Exchange Regulation Act 1947), Bangladesh Bank oversees the activities in the market and occasionally intervene if it deems necessary.

As of end-December 2017, 1,009 authorized dealer (AD) bank branches and 234 money changers, 7 overseas bank branches and 29 exchange houses actively participated in FX market. Besides, 1,190 drawing arrangements were established with overseas banks and money transfer agencies to expedite wage earners' remittances. Banks' FX assets are generally maintained in BB clearing account, cash, Nostro accounts of local banks, bills purchased and discounted, off-shore banking units (OBUs) and others.



Increase in investments in OBU and decline in debit balance of Nostro a/c as well as bills purchased and discounted created a concern for FX market in CY17.

> The banking sector's FX assets accounted for about 4.3 percent of aggregate assets with USD 6.9 billion at end-December 2017. Chart 9.1 illustrates component-wise segregation of FX assets in CY16 and CY17. Asset exposure in debit balance in Nostro accounts decreased by 17 percent in CY17, whereas investments in OBU increased by 12 percent in CY17.

FX liabilities stood at USD 6.5 billion in CY17 which contributed about 4.3 percent of banking sector aggregate liabilities.



Source: FEPD, BB

#### 9.2 FOREIGN EXCHANGE CONTINGENT LIABILITIES



FX liabilities comprised of back to back L/C, credit balance in Nostro account, exporters' retention quota (ERQ), and private foreign currency deposit accounts; foreign demand draft (FDD), telegraphic transfer (TT) and mail transfer (MT) payables; non-resident foreign currency deposit (NFCD) accounts, resident foreign currency deposit (RFCD) accounts and others. Chart 9.2 depicts component-wise segregation of FX liabilities in CY16 and CY17. Liabilities in NFCD accounts decreased by 31 percent while liabilities in private foreign currency accounts increased by 23 percent.

FX contingent liabilities were held in four major accounts; letter of credits, letter of guarantees, acceptances and others. Chart 9.3 depicts that about 63.0 percent of FX contingent liabilities were in letter of credit, 29.0 percent were to acceptances, while 8.0 percent with letter of guarantees and 0.06 percent for other purposes. At end-December 2017, total contingent liabilities was USD 42.4 billion (declined by 36 percent from CY16), which was more than six times of the total FX assets.

Source: FEPD, BB

#### 9.3 INTERBANK (LOCAL) FX TURNOVER

#### Total turnover of inter-bank FX transactions in USD was 17.3 billion in CY17, about 2.5 times of the total FX assets. Swaps in USD dominated the interbank local FX market since 2015 while the era of spot market is of close end.

Until 2014, almost all dealings/transactions had used to be executed in the spot market. Since 2015, swaps in USD appeared to occupy a significant portion of the FX turnover.



Chart 9.4 shows that almost 82.0 percent of the total FX turnover was represented by swap transactions in USD during CY17. On the other hand, 14.0 percent of transactions were executed in the spot market in USD or other currencies. During CY17, almost 97.2 percent of inter-bank FX transactions were executed in USD, though overall local interbank FX turnover declined.

The monthly average turnover of inter-bank (local) FX transactions (spot) was USD 205.2 million in CY17, which was USD 320.3 million in CY16 and USD 370.7 million in CY15; whereas swap

transactions increased by 2.3 percent from USD 1,147.6 million in CY16 to USD 1,174.2 million in CY17.



Chart 9.5 illustrates the trend of FX turnover in the last four consecutive years. During CY17, the FX turnover was less stable compared to those of the preceding three calendar years.



The amount of FX holdings by the authorized dealers is subject to open position limits allowed by Bangladesh Bank. The overall net FX position was USD 508.4 million at end-December 2017. The highest balance of USD 898.3 million was observed at end-June 2017, while the lowest balance of USD 269.2 million was observed at end-January 2017. However, the net FX position showed moderate stability during CY17.

Jource. I LFD, DD

## 9.4 RESERVES ADEQUACY MEASURES AND EXCESS RESERVES

# Bangladesh FX reserves recorded USD 33.2 billion in CY17 even after selling of large amount of USD in FX market.

Adequacy of FX reserves is an important parameter in gauging an economy's ability to absorb external shocks albeit having no single measure of the amount of reserves a country should hold as insurance against a currency crisis.

Three mostly used international benchmarks are- (i) import coverage of FX reserve, (ii) reserves equal to 20 percent of M2, and (iii) reserves sufficient to cover external debt coming due within 12 months.<sup>86</sup> The reserve adequacy position of Bangladesh is shown below:

<sup>86</sup>Islam, M.S. (2009), "An Economic Analysis of Bangladesh's Foreign Exchange Reserves", ISAS Working Paper No. 85, Singapore, September.



Chart 9.8 illustrates accumulated FX reserve of Bangladesh. It would cover approximately 8 months' import payments of CY17 in the event of any unwanted crisis, which is much higher than the international benchmark of three (03) months' import payments. In terms of reserves to money supply criteria, Bangladesh has the required level of reserves. Chart 9.9 shows reserves to M2 ratio. The ratio has increased significantly and crossed the acceptable benchmark of 20 percent.

In terms of short-term debt to reserves criteria, Bangladesh' short-term external debt has been fluctuating between 20 and 30 percent of reserves which is lower than the standard yardstick of 100 percent. However, it is to mention that only few countries can maintain this benchmark.



Chart 9.11 summarizes all the three criteria described above. After covering the three benchmarks, FX reserve had negative figures from CY13 to CY17 (estimated), which indicates Bangladesh's forex reserves are not substantially higher than adequate if all the reserves adequacy measures are considered. Fortunately, very few countries can achieve three criteria at the same time. Bangladesh is ranked 48th with USD 33.2 billion among the countries holding FX reserve (including gold).

TABL	TABLE 9.1: LIST OF COUNTRIES BASED ON FOREIGN EXCHANGE RESERVES (DECEMBER 2017)			
Rank	Country Name	FX Reserves (Billion USD)		
1	China	3,235.9		
2	Japan	1,264.3		
3	Switzerland	836.3		
4	Saudi Arabia	488.9		
5	Russia	457.8		
6	Taiwan	456.7		
7	Hong Kong	443.5		
8	India	422.5		
9	South Korea	395.8		
10	Brazil	381.1		
11	Singapore	279.9		
12	Thailand	249.5		
13	Germany	200.2		
14	France	175.9		
15	Mexico	173.0		
16	United Kingdom	158.6		
17	Czech Republic	151.7		
18	Italy	143.2		
19	Iran	135.5		
20	Indonesia	130.2		
48	Bangladesh	33.2		

#### 9.5 WAGE EARNERS' REMITTANCE

#### Wage earners' remittance declined slightly from CY16 to CY17.

The remittance flow fell by USD 0.08 billion (0.56 percent) and reached to USD 13.53 billion during CY17 from USD 13.61 billion in CY16 (illustrated in Chart 9.12). August 2017 data demonstrated the highest inflow of remittance (USD 1.42 billion) while September 2017 recorded the lowest inflow (USD 0.86 billion). Different initiatives such as establishment of exchange houses/opening of branch offices abroad by local banks to expedite collection of remittances, using ATM booths of banks and the branch networks of the MFIs and post offices as the sub agent for remittance distribution, distribution of remittance through agent Banking like Singer Bangladesh Limited outlets, opening of "Remittance Help Desk" in all branches for better remittance services, permitting inward remittance on account IT/ITES through international card account have been undertaken to boost the flow of inward remittances from Bangladeshi nationals working abroad.



Chart 9.13 shows the quarterly wage earners' remittance trend of top ten sender countries. The flow of remittance from the sender countries fluctuated both in CY17 and CY16 compared to the preceding calendar years.

#### **9.6 EXCHANGE RATE MOVEMENT**

#### Nominal exchange rate did not appreciate in the entire review year.

The FX market displayed an upward movement of the nominal exchange rate in the review year. The dispersion between the minimum and the maximum USD-BDT rate was 3.70. The dispersions were 0.46, 0.94 and 0.38 in CY14, CY15 and CY16 respectively. The lowest exchange rate (USD-BDT 78.87) was observed in January 2017 while the highest exchange rate (USD-BDT 82.57) was recorded in December 2017.



Chart 9.14 shows that the monthly average nominal USD-BDT exchange rate in CY17 (blue line) was fluctuating all over the period of 2017. The USD-BDT rate depreciated by 0.47 percent in January 2017 and 4.82 percent in December 2017 compared to respective rates of corresponding months of CY16. Moreover, during July-December 2017, BDT vis-à-vis USD depreciated by 2.5 percent.

#### 9.7 MOVEMENT OF REAL EFFECTIVE EXCHANGE RATE (REER)

Given the nominal depreciation of BDT and the movement of USD against other major currencies, during 2017, nominal effective exchange rate (NEER) and real effective exchange rate (REER) indices depreciated by 10 and 7 percent respectively, providing an additional support in export competitiveness.

The base year and currency basket of REER<sup>87</sup> are drastically changed in CY17. In new base year, the minimum USD-BDT rate was 100.89 in December 2017, and the maximum was 109.17 in January 2017. The dispersion found between the minimum and maximum USD-BDT REER was 8.28 in CY17, while it was 8.55 and 6.92 in CY16 and CY15 respectively.



Chart 9.15 depicts the trend of REER movement in CY17 (red line) with that of last three consecutive calendar years. Its movement was comparatively less volatile than CY16 and CY15, as the standard deviation of REER was 2.62 in CY17, while it was 2.71 and 2.73 in CY16 and CY15 respectively. This situation seems strongly supportive for export growth of a country as well as production.

Export receipts grew by only 3.0 percent in CY17, whereas import payments increased by 15.8 percent. To avoid any severe volatility in the foreign exchange market, Bangladesh Bank sold

<sup>87</sup>REER index is a combination of 15 currencies in a basket with the base year set at 2015-16=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.

USD 1.23 billion in CY17 to meet the increasing demands for foreign currency in the local market<sup>88</sup>, especially to expedite imports of food, large project equipments and industrial raw materials.

#### 9.8 OPENING AND SETTLEMENT OF LETTER OF CREDIT (L/C)

#### Out of USD 65.3 billion newly opened import L/Cs, L/Cs worth USD 25.9 billion were settled in CY17.

The total value of L/C opening for import increased by USD 16.9 billion and reached to USD 65.3 billion in CY17 from 48.4 billion in CY16; and the value of L/C settlement increased by USD 0.8 billion and reached to USD 46.3 billion in CY17 from USD 45.6 billion in CY16. In percentage, the value of L/C opening increased by 34.9 percent and L/C settlement increased by 1.7 percent in CY17 over CY16. The maximum amount of L/C was opened and settled in November 2017. Until December 2017, L/C with a value of USD 36.6 billion remains outstanding which will be settled in the next calendar year. Although less payment of L/C in the review year relieved pressure on FX reserve for a while the pressure has actually been forwarded to the following years.



Source: FEOD, BB

## 9.9 INTERVENTION AND STERILIZATION BY BB

#### Bangladesh Bank sold USD 1.23 billion to ease the FX market in CY17.

Although the official position pertaining to Bangladesh's exchange rate is largely market-determined, Bangladesh Bank occasionally intervenes the market through buy and sell of USD in the FX market to maintain stability in the nominal exchange rate and by changing balance of net domestic assets (NDA) through using monetary policy instruments to contain inflation.

TABLE 9.2: INTERVENTION IN FX MARKET BY BB						
Year	USD Purchased by BB (Billion)	USD Sold by BB (Billion)				
2013	2.6	0				
2014	4.1	0.357				
2015	4.48	0				
2016	3.32	0.008				
2017	0.045	1.23				

Source: Monetary Policy Department, BB

Intervention in the FX market by central bank may have impact on the reserve money (RM) and the broad money (M2). Bangladesh Bank's sterilization operation is executed through Bangladesh Bank bills. Sharp rise in issuance of Bangladesh Bank bill over the past several years indicates an extensive short-term sterilization intervention that put pressure on central bank with payment burden along with influencing its monetary policy.



Chart 9.18 depicts significant positive reserve money (RM) growth over the past several fiscal years, which leads to an increased broad money base as well as creates pressure on inflation. To complement the fiscal policy, the July-December 2017 monetary policy statement proposed reserve money (RM) and broad money (M2) growth of 12 and 13.9 percent respectively.

But due to exchange rate volatility, decline in wage earners' remittance and large import payments net foreign asset (NFA) growth was limited to 0.5 percent. BB sold huge amount of USD in CY17 to ease the FX market and increase NDA to maintain proposed level of reserve

money. This process amplified the high powered money (RM) to grow at 13.3 percent in December 2017 which was higher than projected.

In summary, Bangladesh's external sector is set to pass through a volatility in the near future given the anticipated surge in food import, petroleum price in the international market and private sector foreign loans, and expansionary fiscal policy. Foreign reserves may deplete further and the BDT may continue its slide against the USD. It could create pressure on FX reserve. Besides, foreign loans of NFCs, which are given for six months to one year through commercial banks' offshore units, soared by \$2.7 billion to reach \$7.6 billion as of November 2017.



# **DEVELOPMENTS IN THE FINANCIAL SYSTEM**

Bangladesh economy has achieved a great momentum in 2017 reflecting positive growth impulses in the major areas of the financial system. Introduction of new regulations, revision of existing ones and a number of notable initiatives taken by Bangladesh Bank had implications for macro-financial stability of the country. The notable initiatives, policies and regulations are as follows:

#### **10.1 ASSESSMENT OF FINANCIAL STABILITY**

Bangladesh Bank (BB) published 7<sup>th</sup> issue of its Financial Stability Report (FSR-2016) and 3 (three) issues of Quarterly Financial Stability Assessment Report (QFSAR) during the calendar year 2017 with a view to revealing key trends in the financial system of Bangladesh, risks to and fragilities therein to the stakeholders of the financial system. In addition, BB has prepared and uploaded two issues of Bangladesh Systemic Risk Dashboard (BSRD) in its website. Pertinently, the risk dashboard covers six major risk areas of macro-financial system of Bangladesh namely: macro risk, credit risk, funding and liquidity risk, market risk, profitability and solvency risk, and their inter-linkages.

#### **10.2 REGULATIONS AND POLICIES FOR BANKING SECTOR**

#### a) Islamic Refinance Fund Account

BB has revised the tenure of investment of "Islamic Refinance Fund Account" through BRPD Circular Letter No.11/2017. This Account was introduced by BB in 2014 to utilize the excess reserves of the Islamic banks and FIs maintained with BB for refinancing agro based product processing industries, small enterprises, renewable energy and environment-friendly ventures. Under the revised terms, Shariah-based banks and FIs can invest in this fund for one year on renewable basis and the schedules of repayment and recovery of the financing have also been extended. Refinancing facility, availed from BB, is now scheduled to repay annually along with quarterly profit; earlier the repayment had to be made quarterly along with quarterly profit. However, it can be rolled over on annual basis up to the tenure of the original financing.

#### b) Prudential Guidelines for Agent Banking Operation

BB took initiatives to update and combine the existing policies of agent banking operations and issued 'Prudential Guidelines for Agent Banking Operation in Bangladesh' through BRPD circular No. 14/2017. The revised guideline contains the approval process of agent banking operation, agency contract and details out the permissible activities, responsibilities of bank, assessment of agent, agent operations, technology for settlement of transactions, AML/CFT requirement, measures for customer protection, reporting requirements and supervisory oversight, among other relevant issues.

#### c) Loan Classification and Provisioning

BB brought two major changes in maintaining provision for agricultural and micro credits and credit card business for the banks with a view to encouraging their participation in disbursing credits and promoting cashless secured transactions. As per the revised requirements, banks would have to maintain general provision of 1 percent instead of 2.5 percent against all unclassified short-term agricultural and micro-credits. Also, they would have to maintain general provision against unclassified credit card loans at the rate of 2 percent instead of 5 percent.

#### d) Guidelines on Credit Card Operations of Banks

BB issued 'Guidelines on Credit Card Operations of Banks' on 11 May 2017 to ensure safe, secure and efficient operations of credit cards as a payment instrument and improve the growth of domestic credit card operations. The guidelines include an overview of credit card operations and instructions regarding credit limit and settlement, marketing, eligibility criteria, issuance of principal, supplementary and corporate credit cards, terms and conditions, billing process, collection/recovery mechanism, protection of customer rights, dispute resolution, internal control and compliance, fraud control and security of credit cards, and other legal and regulatory issues. However, in order to mitigate some practical and technical problems encountered by banks, BB amended the guidelines on 3 August 2017 regarding issuance of supplementary credit cards, interest/profit rates, billing process, collection/recovery mechanism, fraud control and security of credit cards.

#### e) Prudential Guidelines for Consumer Financing

BB revised regulations for credit cards and personal loans including loans for the purchase of consumer durables through BRPD Circular No. 04/2017 considering the increasing demand for consumer goods. The amended regulations, released through the aforementioned circular state that maximum limit for unsecured loans and secured loans (against liquid securities) under credit card shall not exceed BDT 10 lac and BDT 25 lac respectively. Similarly, revised regulation for personal loans including loans for the purchase of consumer durables sets limit per person for personal loans at BDT 5 lac without any securities while the amount shall not exceed BDT 20 lac for loans secured against collaterals.

#### f) Investment in Bonds/Debentures

In light of the newly added section 26(KA) of Bank Company (Amendment) Act, 2013, BB instructed banks to invest no more than 5 percent of their total amount of paid-up capital, share premium, statutory reserves and retained earnings in the bonds/debentures of another company. The circular also includes instructions regarding approval of the bonds/debentures by Bangladesh Securities and Exchange Commission (BSEC), External Credit Rating of the issuing company and single borrower exposure limit of the investing bank, among other relevant issues.

#### g) Prudential Guidelines for Small Enterprise Financing

BB abolished the regulation related to post dated/undated cheques collected as collateral against loans (regulation no. 6(e)) from the Prudential Guidelines for Small Enterprise Financing in order to avoid legal complexities. Accordingly, BB issued an instruction through BPRD Circular No. 08/2017 in which banks had been advised to collect a letter of authority from the clients for debiting their accounts for repayment of loan installment(s) as per loan agreement including a memorandum of deposit of Cheque, and fully prepared and valid signed post-dated cheques for each installment stipulating amount and date as per repayment schedule.

#### h) Rationalisation of Rate of Interest on Deposit and Lending

Observing banks' recent trend of decreasing interest rate on deposit more than the same on lending, BB advised them, vide BRPD Circular No. 01/2017, to stem the declining trend in deposit rates and urged to reduce the intermediation spread and to emphasize on recovery of defaulted loans along with different aspects of management efficiency for maintaining the lower trend of lending rate.

#### i) Rationalisation of Schedule of Charges

Analysing the recent trends in schedule of charges, for instance, charging of varying/differential fees/commissions in diverse forms and rates at different stages of loan processing in the Cottage, Micro, Small and Medium Enterprise (CMSME) sector, BB issued instructions, through BRPD Circular

No. 02/2017, regarding loan application fee, documentation fee, CIB charge, stamp charge, legal and valuation fee, and early settlement fee for CMSME sector and also instructed not to impose any charge/fee/commission other than the ones mentioned above.

#### **10.3 POLICIES FOR FINANCIAL INSTITUTIONS**

#### a) Call Borrowing Limit for Financial Institutions (FIs)

BB decided that the base for setting the upper limit of call borrowing for Financial Institutions (FIs) would be equity instead of net asset from 01 February 2017 onward. Accordingly, FIs were instructed to determine their equities based on the balance sheet as of 31st December of each year and were allowed to borrow maximum 30 percent of the calculated equities from the call money market for the next 12 months (i.e. 01 February-31 January). Earlier, FIs were allowed to borrow maximum 15 percent of their net assets from the call money market.

#### b) Guidelines on Code of Conduct for Banks and Financial Institutions

Bangladesh Bank, vide BRPD Circular No.16/2017, issued guidelines on code of conduct for members of the Board of Directors and its committees, all employees of banks and Financial Institutions (FIs), business partners and service providers and receivers to and from banks and FIs with a view to uphold and promote the interests of these institutions.

#### c) Permission of New Financial Institution

BB granted permission to one new financial institution named 'Alliance Leasing and Finance Company Limited' on 06 June 2017 under section 4(1) of the Financial Institutions Act, 1993 [DFIM Circular No. 03/2017]. At present, the total number of FIs in the financial system of Bangladesh is 34.

#### d) Computation of Statutory Liquidity Reserve of FIs

BB replaced section-02 of the FID circular no. 06/2003 regarding computation of Statutory Liquidity Reserve of FIs. The section was replaced as follows: "For computing the liquidity reserves of FIs, the eligible components include cash balance (Bangladeshi currency and note), balance maintained with Bangladesh Bank, balance maintained with other banks/FIs, unencumbered Bangladesh treasury bills and treasury bonds, and assets approved by notification in Government gazette or by Bangladesh Bank."

#### **10.4 REGULATIONS AND POLICIES OF FOREIGN EXCHANGE**

BB has brought a number of changes in its foreign exchange regulations in 2017 which are as follows in brief:

- To facilitate import trade, Bangladesh Bank permitted the import of spare parts of capital machineries for industrial use up to 360 days usance basis. For such deferred payment of imports, the prices must be internationally competitive and usance interest must not exceed 6 percent;
- ii) BB permitted the import of various raw materials for manufacturing Flat Steel and Long Steel up to 360 days deferred payment/usance basis from 180 days terms;
- iii) BB revised the interest rate of Long Term Financing Facility (LTFF) under Financial Sector Support Project (FSSP). An indicative pricing range of six-month USD LIBOR + 2.00 ~ 3.00 percent would be applicable to the Participating Financial Institutions (PFIs) depending on tenor of financing facility and CAMELS rating. In case of Islamic Shariah-based PFI, the Islamic Interbank Benchmark Rate (IIBR) will be used instead of the London Interbank Offered Rate (LIBOR);

- iv) To bring uniformity in regulations between the enterprises of Export Processing Zones (EPZs) and Economic Zones (EZs), BB decided that equity from foreign shareholders and authorized loan received in foreign currency from external sources may be credited in Foreign Currency (FC) accounts of 'Type A' and 'Type B' enterprises of EPZs. BB also allowed 'Type C' enterprises of EPZs to convert their local equity or authorized loan received in local currency into foreign exchange to settle obligations for importing capital machinery. 'Type B' enterprises of EPZs were also allowed to avail this opportunity if equity or authorized foreign loan received from abroad falls short to meet such obligations;
- In order to enhance housing finance facility to non-resident Bangladeshis (NRBs) working abroad, BB decided to provide this facility at a maximum debt equity ratio of 75:25 instead of the existing ratio of 50:50;
- vi) To facilitate admission and study abroad by Bangladeshi nationals, ADs were allowed to release foreign exchange on account of Health Coverage/Health Insurance/Medical Insurance fee provided that such fees are mandatory for Visa/Admission in permissible courses supported by documentary evidence (I-20, Admission Acceptance Letter, Offer Letter etc.) from the concerned educational institution;
- vii) In order to encourage ADs to use the loan under the Green Transformation Fund, BB reduced the interest rate against loan to be charged to ADs to six-month USD LIBOR plus 1.00 percent from the existing six-month USD LIBOR plus 2.25 percent. BB also allowed ADs to determine their own loan interest rates to the borrowers covering their cost of borrowing from the fund and operational expenses, plus a reasonable risk-adjusted spread and profit margin;
- viii) To facilitate short term import finance, BB decided that ADs may, on behalf of industrial importers, issue repayment bank guarantees without getting BB approval favouring International Islamic Trade Finance Corporation extending buyer's credit up to 180 days for import of industrial raw materials for own use by importers, on sight basis, subject to adherence to all applicable credit norms and prudential parameters including single borrower exposure limit;
- ix) BB increased the maximum limit that authorized dealers (AD) would be allowed to remit abroad on behalf of IT/software firms to meet their bona fide expenses from USD 25,000 to USD 30,000 in a calendar year;
- In order to widen the scope for repatriation of ICT related payments, ADs were allowed to provide facilities to credit inward remittances received in international card number/account against the services provided by individual developers/freelancers;
- xi) To improve remittance services for the non-resident Bangladeshis (NRBs), BB advised banks to set up remittance help desk in branches involved in remittance services, to provide remittance related information to the beneficiaries on priority basis, to arrange separate complain registers for NRBs/their beneficiaries and to promote all types of investment opportunities for NRBs and the advantages of remitting money through legal channels;
- To widen the scope of Taka working capital loans for foreign owned/controlled companies, BB decided that resident persons/companies may purchase Commercial Papers (CPs) issued by companies in terms of general instructions of the Guidelines on Commercial Paper (CP) for Banks issued vide FE Circular No. 11/2017;
- xiii) BB clarified, vide FE Circular No. 9/2017, that shares may be issued in favour of non-residents by debit to Non-resident Taka Accounts maintained by ADs in the names of their overseas branches and correspondents against inward remittance in convertible foreign currencies;

- xiv) In order to keep minimum involvement of AD's own fund for settlement of import, ADs maintaining exporter's retention quota (ERQ) accounts were allowed to transfer fund from their ERQ accounts to other ADs of same exporters or their subsidiaries/sister concerns for settlement of import payment subject to observance of specific terms and conditions stipulated for both the fund transferring and receiving ADs; BB enhanced the limit of advance payment, vide FE Circular No 5/2017, by ADs on behalf of exporters from ERQ up to USD 25,000 or its equivalent for bona fide business purposes. Earlier the limit was USD 10,000 or its equivalent;
- xv) In order to ease short-term borrowing by Type A industries in EPZs/EZs, it was decided that they may access short-term foreign currency loans from parent companies/shareholders abroad and other Type A subsidiaries/associates operating in EPZs/EZs;
- xvi) To facilitate the remittance on account of registration fee for medical check-up services to migrant workers, ADs were allowed, upon requests from approved medical centers, to remit the fee to the Bank Account of the beneficiaries.

#### **10.5 DEVELOPMENTS IN SMALL AND MEDIUM ENTERPRISE (SME) FINANCING**

#### a) Redefining Cottage, Micro, Small and Medium Enterprises (CMSME)

BB revised the definitions and credit limits of CMSME in manufacturing and service sector, and of Micro and Small enterprises in trading sector in line with the National Industrial Policy 2016. BB also clarified that excluding Micro and Small enterprises, other enterprises in the trading sector would not be considered for the purpose of SME financing. Maximum credit limit has been introduced for CMSME financing in the following manner:

Enterprise ty	ре	Maximum Credit Limit (BDT)
Cottage		10 Lac
Micro	Manufacturing	1 Crore
	Service	25 Lac
	Trade	25 Lac
Small	Manufacturing	20 Crore
	Service	5 Crore
	Trade	5 Crore
Medium	Manufacturing	75 Crore
	Service	50 Crore

Note: 1 Crore = 10 million; 1 Lac = 0.10 million.

#### b) Revision of CMSME Credit Disbursement Target

BB instructed banks and FIs to disburse at least 20 percent of total loan portfolio to CMSME in 2017 and to increase it gradually to 25 percent by 2021 in order to secure the desired level of CMSME credit in the overall credit portfolio. Moreover, to improve the sector-wise distribution of CMSME loan portfolio, BB urged banks and FIs to disburse at least 50 percent of overall CMSME credit to Cottage, Micro and Small enterprises and minimum 10 percent of total CMSME loan to women entrepreneurs. Banks and FIs were advised to increase the share of manufacturing and service sector in the total SME loan portfolio to minimum 40 and 25 percents respectively and trading sector to maximum 35 percent by 2021.

#### c) Revision of Interest Rate on Lending to Women Entrepreneurs

To motivate women entrepreneurs in business and productive investment activities, BB instructed banks and Fls to limit their interest rates on lending at 9 percent for financing women led enterprises under 'Small Enterprise Refinance Scheme', 'Refinance Scheme for Setting-up Agro-based Product Processing Industries in Rural Area' and 'Refinance Scheme for New Entrepreneurs in Cottage, Micro and Small sectors'. Earlier the maximum lending rate was 10 percent.

#### d) Revision of List of Agro Based Industries

SME and Special Programmes Department has revised the list of agro-based industry by adding the 03 (three) sectors to the existing 37 (thirty-seven) sectors in line with the 'National Industrial Policy-2016'.

#### e) Revision of Tenure of Grace Period

With a view to expediting economic development of the country and motivating Cottage, Micro and Small Entrepreneurs especially woman entrepreneurs of manufacturing, services and trade sectors, BB instructed banks and Financial Institutions to provide continuous/demand loan consistent with the demand of the entrepreneur's working capital and to allow 03 months grace period for 1-year term loan and 03-06 months grace period for medium and long-term loan.<sup>89</sup>

#### f) Revision of Credit Facility without Collateral

In order to encourage new entrepreneurs in Cottage, Micro and Small enterprise sectors, banks and financial institutions have been instructed to extend credit facility amounting more than BDT 10 lacs (if necessary) without collateral security to new entrepreneurs under "Refinance Scheme for New Entrepreneurs in Cottage, Micro and Small sectors" on the basis of banker-customer relationship. Earlier, the maximum financing limit under the said scheme was up to BDT 10 lacs without collateral security.

#### **10.6 PROGRESS IN PAYMENT SYSTEMS**

#### a) Instructions Regarding Mobile Financial Services Operation

- BB set the highest balance limit for mobile financial services (MFS) customer account at BDT 3 lacs in order to prevent the abuse and maintain discipline in the mobile financial services. MFS providers were instructed to bring down the balance in excess of the stated limit by December 31,2017; and
- ii) BB instructed MFS providers to close all accounts of a customer except one if the customer has more than one account. The transaction limits for individual accounts of MFS were also revised. Besides, BB advised MFS providers to keep record of cash-in or cash-out amounting to BDT 5,000 and beyond.

#### b) Promotion of Cashless Transaction

BB updated and combined instructions regarding card-based payments through different payment channels to ensure security, minimize transaction risks and enhance public awareness. Subsequently, BB issued a circular concerning safety, security and promotion of card-based transactions and different payment channels such as ATM, POS and online/internet/e-payment gateway.

<sup>&</sup>lt;sup>89</sup>Grace period will be deemed as an extra period over the original repayment schedule of the loan.

#### c) Usage of Electronic Interbank Payment System

To ensure maximum usage of electronic interbank payment systems, especially Electronic Fund Transfer (EFT) and Real Time Gross Settlement (RTGS) systems, BB instructed scheduled banks to take necessary steps to provide origination service for EFT and RTGS transactions from all of their branches within 31 December 2017. Besides, BB advised banks to promote these services among the stakeholders and to arrange training/workshop and awareness programs for banks' employees and customers respectively.

#### **10.7 DEVELOPMENTS IN SUSTAINABLE FINANCE**

#### a) Expenditure Allocation for Training to Develop the Efficiency of Wage-earners

In order to increase the foreign remittance, BB advised all the scheduled banks to bear training related expenses of any autonomous body for developing the efficiency of wage-earners and opening and maintenance of wage-earners bank accounts under their CSR activities. It will facilitate the remittance inflow through proper banking channel.

#### b) Guidelines on Environmental and Social Risk Management

In order to broaden the scope of Guidelines on Environmental Risk Management (ERM) issued vide BRPD Circular No. 01/2011, BB issued the 'Guidelines on Environmental and Social Risk Management (ESRM) for Banks and Financial Institutions in Bangladesh' by incorporating Social Risks and expanding risk rating system. This guideline includes typical Environmental and Social (E&S) Risks for banks and FIs in Bangladesh, risks associated with E&S Risks in credit management, applicability of the guidelines, applicable standards and other relevant issues.

#### c) Refinance Scheme for Green Products/Initiatives

BB issued a consolidated guideline on Refinance Scheme for Green Products/Initiatives in order to facilitate private sector credit flow into environment friendly products/initiatives. The guideline lists 51 green products/initiatives under 8 sectors eligible for the refinance scheme. It features different aspects of the refinance scheme including interest rate applicable for Participatory Financial Institution (PFI) and customers, calculation of duration of loan repayment and interest rate, eligibility criteria, application procedure, recovery procedure, utilization of refinanced loan and other relevant issues.

#### **10.8 INITIATIVES TO PREVENT MONEY LAUNDERING**

In order to prevent money laundering, terrorist and proliferation financing, Bangladesh Financial Intelligence Unit (BFIU) issued instructions for scheduled banks and institutions engaged in mobile financial services through two separate circulars. In general, both circulars include instructions regarding compliance framework, customer acceptance policy, know your customer (KYC), customer due diligence (CDD), new service or technology, transaction monitoring, Suspicious Transaction Report (STR), prevention of financing of terrorism and financing of proliferation of weapons of mass destruction, recruitment and training of employees, and record keeping. Besides, scheduled banks were provided specific instructions regarding correspondent banking, agent banking, overseas bank branches and subsidiaries, self-assessment and independent testing of bank branches, domestic and cross-border wire transfer. Moreover, specific instructions were given to mobile financial services providers for recruitment of agents and distributors and monitoring of their activities.

#### **10.9 DEVELOPMENTS IN AGRICULTURAL AND RURAL CREDIT**

#### a) Issuance of Agricultural and Rural Credit Policy and Program

BB announced its agricultural and rural credit policy and program for the financial year (FY) 2017-18. The disbursement target for banks was set at BDT 20,400 crore which is 16.2 percent higher than that of the FY 2016-17. The credit policy and program provides a highlight of banks' credit disbursement in agricultural and rural sector in FY 2016-17, describes briefly the features of this program, and delineates activities regarding credit disbursement, monitoring, recovery, use of information technology, awareness and training, among other topics.

#### b) Re-fixation of Interest Rate on Agricultural and Rural Credit

BB decreased the upper limit of the interest rate on agricultural and rural credit from 10 percent to 9 percent to increase the credit flow in the agriculture sector.

#### c) Agricultural and Rural Credit Disbursement by Private Commercial and Foreign Banks

To strengthen food security and the base of domestic economy, BB consolidated all previous instructions with necessary modifications/inclusions regarding determination of target for disbursement of agricultural and rural credit and its implementation for all private commercial and foreign banks. These new instructions include determination of disbursement target for all private commercial and foreign banks and punitive measures if a bank fails to achieve the target and other relevant matters.

#### **10.10 SCHEME FOR FINANCIAL INCLUSION**

A refinance fund worth USD 240 million was established at BB with a view to developing cottage, micro, small and medium sized enterprise (CMSME) sector. Participating banks and FIs will be provided refinance facility from this fund. BB issued a guideline in this regard which includes instructions on selection of eligible project/business, selection of eligible banks and FIs, interest rate, collection process and other relevant directions.

#### **10.11 DEVELOPMENTS IN FINANCIAL INTEGRITY AND CUSTOMER SERVICES**

BB amended section no. 2.09.01 of the Guidelines for Customer Services and Complaint Management. The amendment comprises instructions governing the change in interest rates for term loans with variable interest rates, early settlement fee for continuous or demand loans and late fee/penal rate/compensation imposed for late payment of installation of term loans. Besides, banks were advised not to accept blank cheques as collateral against loans due to recent rise in fraudulent activities involving MICR cheques.

# Chapter 11

# **MICROFINANCE INSTITUTIONS (MFIs)**

The Micro Finance Institutions (MFIs) has a long history of contributory role in the socio-economic development of Bangladesh. The microfinance sector has evolved as a development catalyst to the marginal people of rural and urban areas with an opportunity to provide flexible access to formal financial services. Bangladesh has a matured microfinance market with a number of renowned MFIs such as Grameen Bank, BRAC, and ASA. In addition, there are remarkable contributions of the specialized government micro-finance organizations, other non-government organizations and formal financial institutions conducting microcredit programs in the economy. MFIs of Bangladesh indeed constitute the lion part of rural financial market. Various programs of MFIs are contributing in fresh employment generation through their regular credit schemes and social businesses. The activities and services of MFIs are also raising savings awareness among the poor along with creating income generation scopes. In addition to general microcredit, MFIs provide microenterprise loans, loans for the ultra poor, agricultural loans, seasonal loans, loans for disaster management etc. in different structures. MFIs have special financial products and services including individual small loans, group loans and training programs for rural women. These programs significantly facilitate strengthening the aggregate labor forces of Bangladesh. Bringing women in the economic activities help improving living standard and sustainable development of the economy. This sector is growing under strong surveillance of Microcredit Regulatory Authority (MRA) and continuous support of the government of Bangladesh. The microfinance sector showed resilient growth trend in FY2017. The total number of borrowers of MFIs has reached approximately 24.8 million in FY17 which was 23.1 million during FY16. In both the years 91.1 percent borrowers were women.

#### **11.1 OUTREACH OF MICROFINANCE SECTOR**

Loan amount up to BDT 50,000 are generally measured as microcredit and above this amount are considered as microenterprise loans. MFIs in Bangladesh are more competitive now a days. To attract the clients, they have developed a number of innovative financial products and services. Due to flexible access to an extensive financial services with a low transaction cost, without or less collateral requirement and less formality, the microfinance sector in Bangladesh has reached the grass root level. In FY17, it provided valuable financial services to 29.9 million members (an increase of 7.6 percent from FY16) through 1,37,607 employees (an increase of 10.1 percent from FY16) under 17,120 branches (an increase of 5.1 percent from FY16) all over the country.

	TABLE 11.1: OUTREACH OF MICROFINANCE SERVICES						
	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	<b>Growth</b> (in %, based on 2016-17)
1	Total Number of Licensed Institutions	649	742	753	759	784	3.3
2	Number of Branches	14,674	14,730	15,609	16,282	17,120	5.1
3	Number of Employees	1,10,734	1,09,628	1,10,781	1,24,992	1,37,607	10.1
4	Number of Members(in Millions)	24.6	25.1	26.0	27.8	29.9	7.6
5	Number of Borrowers (In Millions)	19.0	19.4	20.8	23.1	24.8	7.4
6	Outstanding loan disbursed by licensed institutions (in Billion)	239.8	276.9	353.8	458.2	581.6	26.9
7	Outstanding Loan Disbursed by Top 20 Institutions (in Billion)	191.3	212.0	278.0	348.0	478.0	37.3
8	Outstanding Savings Balance of the licensed institutions (in Billion)	94.0	107.0	136.0	168.7	216.1	28.1
9	Outstanding Savings Balance Held in Top 20 Institutions (in Billion)	69.6	88.0	107.0	136.0	171.4	26.0

Source: Microcredit Regulatory Authority; calculation: FSD, BB

In the reporting period, the total outstanding loans and total savings were 26.9 percent higher than FY16 (BDT 581.6 billion) and 28.1 percent higher than FY16 (216.1 billion) respectively (Chart 11.2). This sector also experienced an upward trend in terms of loan outstanding per borrower per branch and savings per client per branch in this period.

At the end of FY17, the total numbers of MFIs showed 3.3 percent growth than the previous fiscal year. Simultaneously, 84 MFIs had to shut down their business due to regulatory requirements. Table 11.1 and Chart 11.1 show that the total number of MFIs has increased by 135 during the last five years (FY13 to FY17). The number of members of this sector has also increased by 5.3 million during this period. In FY17, total net loans disbursed and the total savings accumulated by MFIs have been increased by more than double during the last five years.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

Chart 11.3 illustrates that both the number of borrowers and the members of the MFIs have been steadily increasing over time. In particular, number of borrowers has increased by 1.7 million whereas the number of members has increased by 2.1 million in FY17 from the preceding corresponding period. These indicators show that access to micro finance by the lower income segment of the society is consistently improving.



The current borrowers to members' ratio declines slightly and reaches to 82.9 percent (Chart 11.4), which is 14 basis point lower than that of the previous reporting period due to increase of the members. This trend indicates that more members are active in local economic activities through their access to microcredit services.

The average loans and savings per institution (Chart 11.5) show consecutive increasing trend over the last five years. The average loans and savings per institution increased by 22.9 percent and 24.0 percent respectively during FY17.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

Notably, the average loans and savings per branch (Chart 11.6) were 20.7 percent higher (BDT 34.0 million) and 21.8 percent (BDT 12.6 million) higher than that of FY16 respectively.

Chart 11.7 depicts an upward trend in average loan size and savings per borrower/member in the last couple of years. In FY17, the average loan per borrower was 18.2 percent higher than that of the previous period, but it was almost double compared with FY13. Similarly, the average savings per member was 19.0 percent higher than that of the previous reporting period. At the end of FY17, the savings to loan ratio per member was 30.8 percent.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

Chart 11.8 shows that MFI sector is mostly dominated by women and their number is increasing steadily with 7.8 percent growth in FY17 compared to FY16. The number of male members has reached to 2.6 million, increasing by 5.9 percent from the previous FY.

Since the major portion of the members is women, the share of women participation to credit access is higher. As of end FY17, 22.6 million out of 27.3 million (i.e. 82.9 percent) female members were enjoying the credit facility while 2.2 million out of 2.6 million (i.e. 83.7 percent) male members availed the same.

#### **11.2 LOANS SCENARIO**

Chart 11.9 shows the distribution of outstanding loans under different loan ranges. In FY17, loans provided in the range 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 5.8 percent, 29.2 percent, 23.0 percent, 20.2 percent, 16.3 percent and 5.5 percent of total outstanding loans of MFIs respectively. However, loans given in different ranges increased by 4.6 percent, 2.2 percent, 36.8 percent, 46.7 percent and 56.5 percent and 49.7 percent respectively.



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



In FY17, 11.9 million members (2.6 percent lower than that of FY16) availed loans in range of BDT 10,000 to 30,000, which constitutes 48.0 percent of total borrowers taking loan facilities, compared with 52.9 percent in FY16. Loans taken in the range of BDT 30,001 to 50,000, 50,001 to 100,000, 100,001 to 300,000 and above 300,000 increased by 36.6 percent, 48.4 percent, 41.4 percent and 46.6 percent respectively.

Chart 11.12 signifies a downward trend in default rate during the last five consecutive years indicating that the sector is gradually becoming more resilient to any shock. In FY17

Source: Monetary Policy Department, BB

the non-performing loans (NPLs) ratio was 2.3 percent (30 basis points lower than FY16) which is quite low, considering the NPLs of the banking and FIs sectors. Lower default rate of MFIs may be justified by improvement in repayment capacity of the borrowers as well as the efficiency of the employees of the MFIs in recovering loans.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

Chart 11.13 depicts the non performing loan volume trend for the last 5 years. At the end of FY17, total amount of default loan amount stands at BDT 13.6 billion; which is 1.8 billion higher than that of the previous FY. However, in FY17, the non-performing loan ratio moves to lower percentage points than the previous FY due to, among others, higher disbursement of loans.

#### **11.3 SOURCES OF FUNDS AND ITS COMPOSITION**

Over the time, funding sources of MFIs have been transformed to self-reliant sources from donor-dependent. By June 2017, 32.9 percent of their total funds derived from cumulative retained earnings. Loans from banks and PKSF, donors' fund and members' savings are the other major sources of their capital funds. The contribution of foreign sources in the revolving funds (RLF) of MFIs declined to 1.2 percent by June 2017 which was 2.5 percent in FY13.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

Chart 11.14 points out that total funds of MFIs is BDT 622.4 billion during FY17 which was 25.6 percent higher than that of FY16. This expansion was bigger due to significant increase in savings of the members of MFIs (28.1 percent higher from FY16). MFIs equity increased from FY16 by 21.9 percent and loans from commercial banks increased by 39.7 percent from FY16.

Over the last five years, the total fund<sup>90</sup> has doubled from FY13. During this period, the MFIs enjoyed an average growth rate of more than 15.0 percent in total funds and it is still growing significantly.

In FY17, equity, savings from members and loans from commercial banks constituted 32.9, 34.9 and 21.4 percents of total funding of the MFIs respectively. Besides, loan from PKSF, donors' fund, other loans and other sources constituted 7.0 percent, 0.9 percent, 1.2 percent and 1.7 percent respectively. It is mentionable that contribution of capital as a source of fund decreased from 33.9 percent to 32.9 percent in this period due to a significant increase in volume of total fund. However, contribution of member savings increased from 34.2 percent to 34.9 percent and loans from commercial banks increased from 19.3 percent to 21.4 percent in this period.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

#### **11.4 FINANCIAL SUSTAINABILITY**

Return on Assets (ROA) and Return on Equity (ROE) are two major indicators of operational sustainability of Financial Institutions. In FY17, ROA and ROE of MFIs were 3.1 and 22.0 percent where the corresponding figures were 2.3 and 21.0 percent in FY16 respectively. Both ROA and ROE increased by 0.8 and 10.0 percentage points respectively. Equity of MFIs during FY17 has also increased by BDT 36.5 billion. Decrease in donation to equity ratio (dependency ratio), also indicates gradual improvement in MFIs sector (Chart 11.18) which is an indication of the sector's sustainability.

<sup>90</sup>The total fund mainly comprises MFIs' own capital, savings, loans from commercial banks, loans from PKSF, donors' fund, loans from Government and others' loans.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

The amount of donated funds decreased in FY17, but the amount of equity increased through retained earnings. Members' savings also increased, which remained crucial for long term sustainability of this sector, as well as to withstand any financial shocks.



Source: Microcredit Regulatory Authority, calculation: FSD, BB

The micro finance sector is highly concentrated in terms of loans, savings, and number of members in a small number of institutions. The top 10 MFIs mobilized 72.9 percent of total savings, and disbursed 68.7 percent of total loans in FY17. They provided financial services to 63.4 percent of members of total MFIs. Compared to FY16, savings concentration remains constant, while the concentration in terms of loans and members increased by 1.6 and 0.9 percentage points respectively. High degree of market concentration by the top MFIs indicate that they need to be dealt with cautiously as their poor performance may raise stability concern for this sector.

The overall performance of MFIs in Bangladesh was quite stable during FY17. All the indicators showed a positive and growing trend. Though total amount of NPL increased during 2016-17, the NPL ratio indicated a downward trend. However, overlapping of loans of individual borrower's loan would create credit trap in the long run if the borrower selection and their credit need are not justified properly. A technology based monitoring system would reduce these problems. Besides that, a sound micro finance policy might help achieving sustainable development goals. It will contribute more in various development strategies of the government in line with vision 2021 and vision 2041.



APPENDIX I: BANKING SECTOR AGGREGATE BALANCE SHEET						
		(Amount in E	Billion BDT)		Chan	ge (%)
Particulars	2014	2015	2016	2017	2015 to 2016	2016 to 2017
Property & Assets						
Cash in Hand (including FC)	91.1	92.3	106.5	117.6	15.4	10.4
Balance with BB & SB (including FC)	572.8	666.3	760.2	833.1	14.1	9.6
Balance with other Banks & Fls	409.7	428.9	506.1	684.7	18.0	35.3
Money at Call & Short Notice	54.2	49.6	47.8	71.5	(3.6)	49.6
Investments						
Government	977.6	1,136.4	1,174.6	1,104.7	3.4	(6.0)
Others	855.5	938.0	964.9	814.2	2.9	(15.6)
Total Investment	1,833.1	2,074.4	2,139.5	1,918.9	3.1	(10.3)
Loans & Advances						
Loans, CC, OD etc.	5,147.2	5,904.1	6,787.5	8,050.8	15.0	18.6
Bills purchased & Discounted	245.7	287.0	348.5	436.4	21.4	25.2
Total Loans & Advances	5,392.9	6,191.1	7,136.0	8,487.2	15.3	18.9
Fixed Assets	216.7	224.4	225.2	226.7	0.4	0.7
Other Assets	570.7	584.4	696.8	715.8	19.2	2.7
Non-banking Assets	1.9	3.3	3.7	3.7	12.1	-
Total Assets	9,143.0	10,314.7	11,621.7	13,059.3	12.7	12.4
Liabilities						
Borrowings from other Banks/Fls/Agents	313.0	398.7	488.7	711.1	22.6	45.5
Deposits & Other Accounts:						
Current Deposit	1,295.3	1,495.8	1791.0	2,048.1	19.7	14.4
Savings Deposit	1,225.6	1,442.4	1773.6	2,015.1	23.0	13.6
Fixed/Term Deposit	3,931.1	4,524.2	4765.0	5,174.2	5.3	8.6
Inter-bank Deposit	175.6	138.6	169.9	285.1	22.6	67.8
Other Deposits	513.0	431.0	562.4	596.8	30.5	6.1
Total Deposit	7,140.6	8,032.0	9,061.9	10,119.3	12.8	11.7
Bills Payable	87.8	87.6	150.4	138.0	71.7	(8.2)
Other Liabilities	860.2	951.7	1065.5	1,180.6	12.0	10.8
Total Liabilities	8,401.7	9,470.0	10,766.6	12,149.0	13.7	12.8
Capital/Shareholder's Equity	741.3	844.7	855.1	910.3	1.2	6.5
Total Liabilities & Shareholder's Equity	9,143.0	10,314.7	11,621.7	13,059.3	12.7	12.4
Off-balance Sheet Items	2,360.9	2,685.3	2,966.7	4,535.5	10.5	52.9

					(Amount in	Billion BDT)
		% of		% of		% of Total
Particulars	2015	Total	2016	Total	2017	Assets
		Assets		Assets		
Property & Assets						
Cash in Hand (including FC)	92.3	0.9	106.5	0.9	117.6	0.9
Balance with BB & SB	666.3	6.5	760.2	6.5	833.1	6.4
(including FC)						
Balance with other Banks &	428.9	4.2	506.1	4.4	684.7	5.2
Fls						
Money at Call & Short	49.6	0.5	47.8	0.4	71.5	0.5
Notice						
Investments						
Government	1,136.4	11.0	1,174.6	10.1	1,104.7	8.5
Others	938.0	9.1	964.8	8.3	814.2	6.2
Total Investments	2,074.4	20.1	2139.4	18.4	1,918.9	14.7
Loans & Advances						
Loans, CC, OD etc.	5,904.1	57.2	6,787.5	58.4	8,050.8	61.6
Bills purchased &	287.0	2.8	348.5	3.0	436.4	3.3
Discounted						
Total Loans and Advances	6,191.1	60.0	7,136.0	61.4	8,487.2	65.0
Fixed Assets	224.4	2.2	225.2	1.9	226.7	1.7
Other Assets	584.4	5.7	696.8	6.0	715.8	5.5
Non-banking Assets	3.3	0.0	3.7	0.0	3.7	0.0
Total Assets	10,314.7	100.0	11,621.7	100.0	13,059.3	100.0

#### APPENDIX II: BANKING SECTOR AGGREGATE SHARE OF ASSETS

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

108 Financial Stability Report 2017

APPENDIX III: BANKING SECTOR AGGREGATE SHARE OF LIABILITIES							
	(Amount in Billion BDT)						
		% of		% <b>of</b>		% of	
Particulars	2015	Total	2016	Total	2017	Total	
		Liabilities		Liabilities		Liabilities	
Liabilities							
Borrowings from other	398.7	4.2	488.7	4.5	711.1	5.9	
Banks/Fls/Agents							
Deposits & Other Accounts:							
Current Deposit	1,495.8	15.8	1791.0	16.6	2,048.1	16.9	
Savings Deposit	1,442.4	15.2	1773.6	16.5	2,015.1	16.6	
Fixed/Term Deposit	4,524.2	47.8	4765.0	44.3	5,174.2	42.6	
Inter-bank Deposit	138.6	1.5	169.9	1.6	285.1	2.3	
Other Deposits	431.0	4.5	562.4	5.2	596.8	4.9	
Total Deposit	8,032.0	84.8	9,061.9	84.2	10,119.3	83.3	
Bills Payable	87.6	0.9	150.4	1.4	138.0	1.1	
Other Liabilities	951.7	10.1	1065.5	9.9	1,180.6	9.7	
Total Liabilities	9,470.0	100.0	10,766.6	100.0	12,149.0	100.0	

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

APPENDIX IV:	APPENDIX IV: BANKING SECTOR AGGREGATE INCOME STATEMENT					
Particulars		(Amount in Billion BDT) Change (%)				
	2014	2015	2016	2017	2015 to	2016 to
					2016	2017
Interest Income	633.2	636.6	639.5	706.1	0.5	10.4
Less: Interest Expense	493.2	490.7	460.6	480.5	(6.1)	4.3
Net Interest Income	140.0	145.9	178.9	225.6	22.6	26.2
Non-Interest/Investment	257.7	279.3	283.5	292.4	1.5	3.2
Income						
Total Income	397.8	425.2	462.4	518.0	8.7	12.1
Operating Expenses	185.1	208.3	246.4	271.5	18.3	10.1
Profit before Provision	212.7	216.9	216	246.5	(0.4)	14.3
Total Provision	84.3	77.0	72	73.6	(6.5)	2.1
Profit before Taxes	128.4	139.9	144	172.9	2.9	20.4
Provision for Taxation	68.4	60.7	60.9	77.8	0.3	28.6
Profit after Taxation/Net Profit	60.0	79.2	83.1	95.1	4.9	14.5

#### APPENDIX V: BANKING SECTOR ASSETS, DEPOSITS & NPL CONCENTRATION (CY17)

(Amount in Billion BDT)					
Assets*	Top 5 Banks	Other Banks	Top 10 Banks	Other Banks	
Amount (in billion BDT)	4022.7	9,036.6	5787.8	7,271.5	
Share (%)	30.8%	69.2%	44.3%	55.7%	
Deposit**	Top 5 Banks	Other Banks	Top 10 Banks	Other Banks	
Amount (in billion BDT)	3,239.8	6,594.4	4,580.3	5,253.9	
Share (%)	32.9%	67.1%	46.6%	53.4%	
NPL***	Top 5 Banks	Other Banks	Top 10 Banks	Other Banks	
Amount (in billion BDT)	365.7	377.4	486.7	256.4	
Share (%)	49.2%	50.8%	65.5%	34.5%	

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) 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)2017 443.0 375.3 (67.7)

Source: Banking Regulation and Policy Department, Bangladesh Bank.

\*Based on assets in descending order.

<sup>\*\*</sup>Based on deposits in descending order excluding interbank deposits.

<sup>\*\*\*</sup>Based on non-performing loans in descending order.

AFFENDIX VII. DAINNING SECTOR TEAR-WISE GROSS NEL RATIO & TIS 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		
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		
2017	9.3	7.5	5.5	87.0		

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

Source: Banking Regulation and Policy Department, Bangladesh Bank.

APPENDIX VIII: BANKING SECTOR NPL COMPOSITION (CY17)						
	(Amount in Billion BDT)					
Particulars	Amou	int	% of Gro	ss NPL		
	CY16	CY17	CY16	CY17		
Sub-Standard	63.6	55.6	10.2	7.5		
Doubtful	33.7	41.2	5.4	5.5		
Bad & Loss	524.5	646.2	84.4	87.0		
Total	621.7	743.0	100.0	100.0		

Source: Banking Regulation and Policy Department, Bangladesh Bank.

#### APPENDIX IX: BANKING SECTOR DEPOSITS BREAKDOWN EXCLUDING INTERBANK DEPOSIT (CY17)

		(Amount in Billion BDT)
ltems	Amount	% of Total Deposit
Current deposits	2,048.1	20.2%
Savings deposits	2,015.1	20.0%
Term deposits	5,174.2	51.1%
Other Deposits	881.9	8.7%
Total deposit	10,119.3	100.0%

APPENDIX X: BANKING SECTOR SELECTED RATIOS								
(In percentage)								
Ratio CY13 CY14 CY15 CY16								
ROA	0.9	0.7	0.8	0.7	0.7			
ROE	10.7	8.1	9.4	9.7	10.4			
Net Interest Margin	2.1	1.8	1.7	1.9	2.0			
Interest Income to Total Assets	7.7	6.9	6.2	5.5	5.4			
Net-Interest Income to Total Assets	1.7	1.5	1.5	1.5	1.7			
Non-Interest Income to Total Assets	2.7	2.8	2.7	2.4	2.2			
Non-interest expense to Gross Operating Income	47.1	46.5	48.6	53.3	52.4			
CAR/CRAR	11.5	11.4	10.8	10.8	10.8			
Gross NPL to Total Loans Outstanding	8.9	9.7	8.8	9.2	9.3			
Gross NPL to Capital	59.8	67.7	60.8	74.2	81.6			
Maintained Provision to Gross NPL	61.6	56.2	51.8	49.4	50.5			

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 o	f Banks			
	2016	2017		2016	2017			
Up to 2.0	49	52	Up to 5.00	11	14			
> 2.0 to 3.0	б	4	> 5.00 to 10.00	14	15			
>3.0to 4.0	1	0	>10.00 to 15.00	21	18			
>4.0	0	1	>15.00	10	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 (ADR)
2013	71.2
2014	71.0
2015	71.0
2016	71.9
2017	75.9

#### APPENDIX XIII: BANKING SECTOR ADR (CY17)

Range	Number of Banks
Up to 70%	09
> 70% to 85%	26
> 85% to 90%	15
>90% to 100%	04
>100%	03
Total	57

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

APPENDIX XIV: BANKING SECTOR LEVERAGE RATIO - SOLO BASIS (CY17)						
Range	Number of Banks					
<3%	07					
>=3% to 10%	33					
> 10% to 20%	11					
>20% to 30%	02					
>30% to 40%	02					
>40%	02					
Total	57					

APPENDIX XV: ISLAMIC BANKS AGGREGATE BALANCE SHEET							
Particulars		(Amo	unt in Billio	on BDT)	Change (%)	Change (%)	
	2014	2015	2016	2017	2015 to	2016 to	
					2016	2017	
Property & Assets							
Cash in Hand (including FC)	14.1	15.9	19.2	24.8	20.8	29.2	
Balance with BB & SB	124.2	151.8	187.9	206.4	23.8	9.8	
(including FC)							
Balance with other Banks & FIs	85.3	86.3	79.7	111.1	(7.6)	39.4	
Money at Call & Short Notice	0.5	0.5	0.5	0.5	0	0	
Investments							
Government	22.3	35.9	42	49.4	17.0	17.6	
Others	125.3	116.5	77.9	58.8	(33.1)	(24.5)	
Total Investments	147.6	152.4	119.9	108.2	(21.3)	(9.8)	
Investments & Advances							
Investments & Advances	1105.1	1311.0	1531.2	1819.2	16.8	18.8	
Bills Purchased &	59.9	74.0	96	129.8	29.7	35.2	
Discounted							
Total Investments & Advances	1165	1384.9	1627.2	1949.0	17.5	19.8	
Fixed Assets	32.2	34.8	35.3	35.9	1.4	1.7	
Other Assets	63	70.3	77.2	82.4	9.8	6.7	
Non-banking Assets	0.1	1.0	1	1.1	0.0	10.0	
Total Assets	1632	1897.9	2148	2519.4	13.2	17.3	
Liabilities							
Borrowings from other	26.6	47.5	74	139.2	55.8	88.1	
Banks/Fls/Agents							
Deposits & Other Accounts							
Current Deposit	118	92.0	115.4	118.4	25.4	2.6	
Savings Deposit	234.6	282.3	335.1	378.2	18.7	12.9	
Fixed/Term Deposit	863.1	1042.9	1109.4	1303.3	6.4	17.5	
Interbank Deposit	26.6	47.5	27.74	71.9	(41.6)	159.2	
Other Deposit	154.8	139.7	197.4	191.7	41.3	(2.9)	
Total Deposits	1370.5	1785.04	1757.3	2063.5	12.9	17.4	
Bills Payable	11.2	11.2	18	20.8	60.7	15.6	
Other Liabilities	108.7	153.5	136.6	157.4	(11.0)	15.2	
Total Liabilities	1517	1769.1	2013.6	2380.9	13.8	18.2	
Capital/Shareholder's Equity	115	128.8	134.5	138.5	4.4	3.0	
Total Liabilities &	1632	1897.9	2148.1	2519.4	13.2	17.3	
Shareholder's Equity							
Off-balance Sheet Items	320.8	369.2	425.1	507.9	15.1	19.5	

APPENDIX XVI: ISLAMIC BANKS AGGREGATE INCOME STATEMENT								
Darticulars		(Amoul	Change (%) in	Change (%) in				
	2014	2015	2016	2017	2016	2017		
Profit Income	142.5	146.8	156.9	159.8	6.9	1.8		
Less: Profit Expenses	96.8	96.8 95.9 94.1				4.4		
Net Profit Income	45.7	50.9	62.8	65.3	23.4	4.0		
Non-Profit/Investment Income	19.8	19.0	20.2	24.3	6.3	20.3		
Total Income	65.5	69.9	83	89.6	18.7	8.0		
Operating Expenses	28.2	33.3	40.7	44.0	22.2	8.1		
Profit before Provision	36.6	36.52	42.2	45.6	15.6	8.1		
Total Provision	11.2	9.3	8.8	10.4	(5.4)	18.2		
Profit before Taxes	25.4	27.2	33.4	35.2	22.8	5.4		
Provision for Taxation	12.1	12.3	15.8	17.0	28.5	7.6		
Profit after Taxation/Net Profit	13.3	14.9	17.6	18.2	18.1	3.4		

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

APPENDIX XVII: SHARE OF ISLAMIC BANKS IN THE BANKING SECTOR (CY17)							
			(Amount in Billion BDT)				
Particulars	All Banks	Islamic Banks	Share of Islamic Banks(%)				
Property & Assets							
Cash in hand	117.6	24.8	21.1				
Due from BB & other banks/FIs	1517.8	317.5	20.9				
Money at Call & Short Notice	71.5	0.5	0.7				
Investments in securities	1918.9	108.2	5.6				
Investments (Loans & advances)	8487.3	1949	23.0				
Other Assets	715.8	82.4	11.5				
Total Assets	13059.3	2519.4	19.3				
Liabilities							
Due to financial institutions	711.1	139.2	19.6				
Total Deposits	10119.3	2063.5	20.4				
Bills Payable	138.0	20.8	15.1				
Other Liabilities	1180.6	157.4	13.3				
Total Liabilities	12149	2380.9	19.6				
Capital/Shareholder's Equity	910.3	138.5	15.2				
<b>Total Liabilities &amp; Shareholder's Equity</b>	13059.3	2519.4	19.3				
Off-balance Sheet Items	4535.5	507.9	11.2				

#### APPENDIX XVIII: SELECTED RATIOS OF ISLAMIC BANKS AND THE BANKING SECTOR (CY17)

(In percenta					
Ratio	<b>Overall Banking Sector</b>	Islamic Banking Sector			
ROA	0.7	0.7			
ROE	10.4	13.1			
Net Profit Margin	2.0	3.0			
Profit (Interest) Income to Total Assets	5.1	6.3			
Net-profit (Interest) Income to Total Assets	1.7	2.6			
Non-Profit (Interest) Income to Total Assets	2.2	1.0			
Investment (Advance)-Deposit Ratio	75.9	87.8			
CRAR	10.8	12.0*			
Classified Investment (Advances) to Investments	9.3	4.2			
Classified Investment (Advances) to Capital	81.6	57.8			

\*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 (CY17)					
CRAR	Number of Islamic Banks				
Below 10%	1				
10% to 12%	2				
>12%	5				
Total	8				

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

#### APPENDIX XX: ISLAMIC BANKS' INVESTMENT (ADVANCE)-DEPOSIT RATIO (AS OF END-DECEMBER 2017)

(Amount in Billion BDT)							
Items	Islamic Banks	Islamic Branches/Windows	Islamic Banking Sector				
Deposits (Excluding Interbank)	2,019.6	99.9	2,119.6				
Investments* (Excluding Interbank)	1,860.1	98.1	1,958.2				
IDR	87.8%	85.3%	87.7%				

\*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	CY16	% of	CY17	% <b>of</b>	Liabilities	CY16	% of	CY17	% of
		Total		Total			Total		Total
		Assets		Assets			Liabilities		Liabilities
Cash &	124.0	24.6	145.5	22.5	Customer	175.6 <sup>R</sup>	38.5 <sup>R</sup>	167.7	27.9
Balance					Deposits				
from									
Central									
Banks									
Balance	282.2 <sup>R</sup>	56.0 <sup>R</sup>	394.5	60.9	Dues to	280.4 <sup>R</sup>	61.5 <sup>R</sup>	432.6	72.1
with other					head				
Banks & FIs					office &				
					branches				
					abroad &				
					other				
					liabilities				
Loans &	71.8 <sup>R</sup>	14.2 <sup>R</sup>	75.8	11.7	Total	456.0	100.0	599.8	100.0
Advances					Liabilities				
Property &	26.0 <sup>R</sup>	5.2 <sup>R</sup>	31.5	4.9	Capital/	48.0	10.5	47.5	7.9
Equipment					Equity				
and other									
assets									
Total Assets	504.0		647.3		Total Liabilities & Equities	504.0		647.3	

Source: Scheduled Banks of Bangladesh Note : R = Revised

APPENDIX XXII: STRESSED ADVANCES RATIO IN DIFFERENT SEGMENTS									
						(Amount in Billion BDT)			
SI	Segments	Year 2017				Gross	Rescheduled	Stressed	
No.		Unclassified Gross Total		Rescheduled	NPL to	(STD) &	Advances		
		Advances	NPL	Advances	nces (STD) & T		Restructured	Ratio	
					Restructured	Advances	Advances to	(3) = (1) +	
					Advances	(1)	Total	(2)	
							Advances		
							(2)		
1	Large	3,440.2	235.3	3,675.5	472.8	6.4%	12.9%	19.3%	
2	Medium	971.6	180.5	1,152.1	149.8	15.7%	13.0%	28.7%	
3	Small	812.2	122.2	934.4	70.6	13.1%	7.6%	20.6%	
4	Micro &								
	Cottage	242.8	27.8	270.6	7.0	10.3%	2.6%	12.9%	
5	Others	1,772.1	177.2	1,949.4	76.5	9.1%	3.9%	13.0%	
	Total	7,238.9	743.0	7,982.0	776.7	9.3%	9.7%	19.0%	

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		
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		
2017	9.3	9.7	19.0		

Source: Scheduled Banks of Bangladesh

APPENDIX XXIV: STRESSED ADVANCE CONCENTRATION IN BANKING SECTOR (CY17)							
Stressed Advances	Top 5 Banks	Other Banks	Top 10 Banks	Other Banks			
Amount (in billion BDT)	720.4	799.4	1018.3	501.5			
Share (in percent)	47.4	52.6	67.0	33.0			

Source: Scheduled Banks of Bangladesh

APPENDIX XXV: FIs' AGGREGATE BALANCE SHEET							
(Amount in Billion BDT)							
Items	CY13	CY14	CY15	CY16	CY17		
Property & Assets:							
Cash in hand	0.04	0.02	0.01	0.02	0.02		
Balance with other banks and Fls	46.9	85.0	94.7	86.7	129.7		
Money at call & short notice	1.0	1.2	0.1	1.4	0.4		
Investment in government securities	4.3	2.2	0.8	1.5	0.5		
Other investments	10.5	16.2	19.4	21.4	21.5		
Total loans & leases	315.1	371.0	448.5	534.2	614.6		
Fixed assets	5.7	6.0	7.0	10.3	11.5		
Other assets	50.0	38.3	39.9	49.2	60.7		
Non-financial assets	2.3	0.2	0.8	0.7	2.3		
Total assets	435.8	520.1	611.1	715.0	841.1		
Liabilities & Equity:							
Borrowing from other banks and Fls	108.1	127.9	132.4	158.7	181.6		
Deposits	197.6	245.7	318.1	383.7	468.0		
Other liabilities	43.6	50.7	60.3	65.9	76.4		
Total liabilities	349.3	424.3	510.8	608.3	726.0		
Shareholders' equity (capital)	86.5	95.8	100.3	106.8	115.1		
Total liabilities and shareholders' equity	435.8	520.1	611.1	715.0	841.1		

Source: Department of Financial Institutions and Markets, Bangladesh Bank
APPENDIX XXVI: FIs' AGGREGATE INCOME STATEMENT						
(Amount in Billion BDT)						
Items	CY13	CY14	CY15	CY16	CY17	
Interest income	50.5	50.9	57.4	55.1	66.4	
Less: Interest expense	(33.9)	(33.8)	(37.4)	(39.2)	(45.5)	
Net interest income (Net II)	16.6	17.1	20.0	15.9	20.9	
Investment income	1.6	1.2	2.0	1.8	3.4	
Add: Commission, exchange and brokerage	0.8	0.3	0.3	0.2	0.5	
Add: Other operating income	2.5	5.2	5.6	3.9	3.2	
Non-interest income (Non II)	4.9	6.7	7.9	5.9	7.1	
Total operating income(Net II + Non II)	21.5	23.8	27.9	21.8	28.0	
Operating expenses	(5.4)	(5.5)	(6.6)	(7.5)	(9.4)	
Profit before provisions	16.1	18.3	21.3	14.3	18.6	
Total provisions	(3.4)	(2.6)	(4.6)	(3.6)	(3.6)	
Profit before taxes	12.7	15.7	16.7	10.7	15.0	
Tax provisions	(4.7)	(6.2)	(7.0)	(5.6)	(5.9)	
Net profit after taxes	8.0	9.5	9.7	5.1	9.1	

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXVII: FIs' LIQUIDITY POSITION						
(Amount in Billion BDT)						
lite ou c	End-Dec	End-Dec	End-Dec	End-Dec	End-Dec	
items	2013	2014	2015	2016	2017	
Total liabilities	158.8	242.9	289.6	342.8	394.5	
Total term deposits	127.0	155.5	191.3	232.2	260.5	
Industry CRR (required)	3.2	3.9	4.8	5.8	6.5	
Industry CRR (maintained)	3.7	8.8	5.2	6.2	7.1	
Industry SLR (required)	7.9	12.1	14.5	15.5	18.0	
Industry SLR (maintained)	24.8	65.6	68.0	64.9	81.5	

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXVIII: FIS' OTHER INFORMATION							
	(Amount in Billion BDT)						
Items	CY13	CY14	CY15	CY16	CY17		
Tier-I Capital	67.6	98.0	94.6	91.3	87.3		
Tier-II Capital	5.3	5.3	6.7	9.7	11.0		
Total Capital	72.9	103.3	101.3	101.0	98.3		
Classified loans & leases	17.7	19.7	40.0	39.2	45.2		
Loan loss provisions (required)	8.6	10.0	19.8	25.2	24.6		
Loan loss provisions (maintained)	9.5	11.0	14.2	19.8	19.7		
Loan loss provision (surplus/shortfall)	0.9	1.0	(5.6)	(5.4)	(4.9)		
No. of government-owned Fls	3	3	3	3	3		
No. of local FIs	18	18	19	19	19		
No. of FIs under foreign joint venture	10	10	10	11	12		
Total no. of FIs	31	31	32	33	34		
No. of branches	176	198	211	225	255		

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXIX: FIs' SUMMARY PERFORMANCE INDICATORS						
(In percent					entage)	
Indicators	CY16	CY17				
Profitability & Efficiency:						
Return on Assets (ROA)	1.8	1.8	1.6	0.7	1.1	
Return on Equity (ROE)	9.2	9.9	9.8	4.4	7.9	
Net Interest Margin (NIM)	5.2	4.6	4.4	2.4	2.7	
Asset Quality:						
Classified Loans & Leases to Total Loans & Leases	5.6	5.3	8.9	7.3	7.3	
Capital Adequacy:						
Capital Adequacy Ratio (CAR)	18.3	21.2	18.7	18.4	13.5	
Liquidity:						
SLR maintained	15.6	27.0	23.5	19.0	20.7	
CRR maintained	6.2	5.7	2.7	2.7	2.7	

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

(In percentage)					
Major Sectors	CY13	CY14	CY15	CY16	CY17
Sector-wise Distribution of Loans & Leases to					
Total Loans & Leases:					
Trade & Commerce	14.5	16.4	17.3	17.1	13.5
Housing	12.2	17.5	17.7	16.8	15.0
Power, Gas, Water and Sanitary Service	12.1	10.5	9.8	9.5	7.9
Textile	4.8	4.4	4.7	4.9	4.0
Iron, Steel and Engineering	4.4	4.7	5.2	5.4	5.2
Transport & Aviation	4.4	4.7	3.9	4.2	8.9
Food Production and Processing Industry	4.1	4.1	4.2	4.8	3.6
Garments & Knitwear	4.0	4.0	4.1	4.5	4.8
Margin Loan	3.9	3.3	3.3	2.4	1.7
Merchant Banking	3.6	4.1	3.7	4.4	3.3
Agriculture	1.4	1.9	1.8	2.0	2.6
Others (including other sectors with minor share)	30.6	24.4	24.3	24.0	29.5

## APPENDIX XXX: FIS' SECTOR-WISE DISTRIBUTION OF LOANS AND LEASES

Source: Department of Financial Institutions and Markets, Bangladesh Bank.

APPENDIX XXXI: INTERBANK REPO VOLUME, INTERBANK REPO RATE AND CALL MONEY RATE						
Month	Interbank Repo Volume (In Billion BDT)	Interbank Repo Rate (%)	Call Money Rate (%)			
January 2017	126.33	3.06	3.54			
February 2017	167.32	3.04	3.50			
March 2017	186.89	3.10	3.66			
April 2017	159.57	3.18	3.76			
May 2017	121.78	3.18	3.81			
June 2017	212.43	3.75	3.93			
July 2017	132.01	3.49	3.72			
August 2017	149.65	3.51	3.77			
September 2017	147.87	3.73	3.91			
October 2017	154.35	3.62	3.87			
November 2017	114.97	3.79	3.82			
December 2017	135.47	3.99	3.92			

Source: Bangladesh Bank Website, Economic Data.

APPENDIX XXXII: BB BILL AND TREASURY SECURITIES YIELD					
Securities	December 2016	June 2017	December 2017		
30 Day BB Bill	3.0%	2.96%	2.97%		
91 Day T-Bill	3.0%	3.65%	3.38%		
182 Day T-Bill	3.2%	4.11%	3.86%		
364 Day T-Bill	3.8%	4.37%	4.35%		
2 Years T-Bond	4.4%	4.90%	5.03%		
5 Years T-Bond	5.9%	5.68%	5.90%		
10 Years T-Bond	6.3%	6.74%	7.17%		
15 Years T-Bond	7.6%	7.66%	7.93%		
20 Years T-Bond	7.9%	8.00%	8.25%		

Source: Major Economic Indicators, February 2018 Issue, Bangladesh Bank.

APPENDIX XXXIII: EQUITY MARKET DEVELOPMENT						
Quarter	DSEX Index	Market Capitalization (in billion BDT)	Market P/E			
March 2017	5,719.61	3,798.31	16.3			
June 2017	5,656.05	3,801.00	15.7			
September 2017	6,092.84	4,072.08	16.3			
December 2017	6,244.52	4,228.95	17.3			

Source: Dhaka Stock Exchange website

APPENDIX XXXIV: AUTOMATED CHEQUE CLEARING OPERATIONS							
	CY15		CY	16	CY17		
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)	1,808.4	9,794.5	1987.0	11479.5	2222.5	12,969.2	
Regular Value (RV)	21,019.4	5,707.3	20,215.5	6518.3	20950.7	7,462.5	

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		
2015	914.2	960.9	152.6	247.6		
2016	1107.3	1179.0	192.1	307.5		
2017	1194.7	1239.5	199.8	364.8		

Source: Statistics Department, Bangladesh Bank.

APPENDIX XXXVI: NUMBER OF BANKS PROVIDING ELECTRONIC BANKING SERVICES					
Year	Internet Banking	Credit Card	ATM/Debit Card		
2015	30	34	50		
2016	41	37	50		
2017	36	37	53		

Source: Statistics Department, Bangladesh Bank.

APPENDIX XXXVII: COMPARATIVE PICTURE OF MOBILE FINANCIAL SERVICES (MFS) IN LAST 3 YEARS						
Particulars	2015	2016	2017			
Number of agents	561,189	710,026	777,179			
No. of Banks authorized for MFS	28	19	18			
No. of Banks in operation for MFS	20	17	18			
Number of registered clients (in millions)	31.8	41.0	58.6			
Number of active accounts (in millions)	13.2	15.8	23.1			
Number of total transactions (in million BDT)	1,166	1,473	1,876			
Volume of total transaction (in billion BDT)	1,577.7	2,346.7	3,147			

Source: Payment Systems Department, Bangladesh Bank.

APPENDIX XXXVIII: BANKING SECTOR MONTH-WISE DEPOSIT & ADVANCE RATE (CY17)						
(In percentage						
Month	Deposit Rate	Advance Rate	Spread			
Jan	5.13	9.85	4.72			
Feb	5.08	9.77	4.69			
Mar	5.01	9.70	4.69			
Apr	4.97	9.62	4.65			
May	4.93	9.66	4.73			
Jun	4.84	9.56	4.72			
Jul	4.89	9.51	4.62			
Aug	4.93	9.46	4.53			
Sep	4.90	9.45	4.55			
Oct	4.89	9.39	4.50			
Nov	4.90	9.30	4.40			
Dec	4.91	9.35	4.44			

Source: Bangladesh Bank Website.

	APPENDIX XXXIX: EXTERNAL CREDIT ASSESSMENT INSTITUTIONS (ECAIS)					
SI. 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 XL: MICROCREDIT SECTOR						
SI No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	
1	Total Number of Licensed Institution	649.0	742.0	753.0	759.0	784.0	
2	Number of Branches	14,674.0	14,730.0	15,609.0	16282.0	17,120	
3	Number of Employees	110,734.0	109,628.0	110,781.0	124,992.0	137,607.0	
4	Number of Members (in millions)	24.6	25.1	26.0	27.8	29.9	
5	Number of borrowers (in millions)	19.0	19.4	20.8	23.1	24.8	
6	Outstanding Loan Disbursed by Licensed institutions (in billions)	239.8 <sup>R</sup>	276.9 <sup>R</sup>	353.8	458.2	581.6	
7	Outstanding Loan Disbursed by top 20 Institutions (in billions)	191.3	212.0	278.0	348.0	478.0	
8	Outstanding Savings Balance of the Licensed institutions (in billions)	94.0	107.0	136.0	172.0	216.1	
9	Outstanding Savings Balance Held in Top 20 Institutions (in billions)	69.6	88.0	107.0	136.0	171.4	
10	Particulars of Outstanding Loan (in millions)						
	Up to BDT 10,000	44,285.2	43,493.2	38,317.5	32,213.9	33,688.5	
	BDT 10,001 to 30,000	92,904.6	107,147.1	138,605.0	166,294.3	169,997.8	
	BDT 30,001 to 50,000	35,436.4	44,522.5	61,505.1	97,682.6	133,677.0	
	BDT 50,001 to 100,000	27,404.0	31,797.1	50,514.6	80,186.7	117,640.8	
	BDT 100,001 to 300,000	32,825.4	39,797.9	50,389.1	60,553.1	94,791.5	
	Above BDT 300,000	6,938.9	10,157.4	14,465.5	21,247.1	31,805.2	
11	Total Number of Loan Recipients (in thousands)						
	Up to BDT 10,000	8,372.4	7,809.4	6,114.1	5,128.7	4,825.8	
	BDT 10,001 to 30,000	8,316.4	9,263.1	10,727.8	12,212.5	11,896.1	
	BDT 30,001 to 50,000	1,375.3	1,715.3	2,383.0	3,451.3	4,714.0	
	BDT 50,001 to 100,000	598.6	692.1	1,043.5	1,615.5	2,397.7	
	BDT 100,001 to 300,000	323.6	403.8	468.9	594.9	841.2	
	Above BDT 300,000	31.6	45.9	63.1	83.4	122.2	
12	Average Loan per Recipient	12,609.0	13,894.6	17,009.2	19,846.3	23,486.0	
13	Default Loan (outstanding amount in millions)	11,596.0	12,231.0	10,755.0	1,771.0	13,556.27	

Source: Microcredit Regulatory Authority.

R = Revised

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			
	Return on equity (ROE)	BS6	Measures banks' efficiency in using its capital	Supervision (DOS)			
	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 Vulne	rability 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		
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.	Malaysia		

Published by G.M. Abul Kalam Azad, General Manager, Department of Communications and Publications, Bangladesh Bank, Head Office, Motijheel, Dhaka-1000, Bangladesh. website : www.bb.org.bd, Printed by Olympic Products, Printing & Packaging, 165, Arambagh, Motijheel, Dhaka-1000.

DCP-07-2018-500