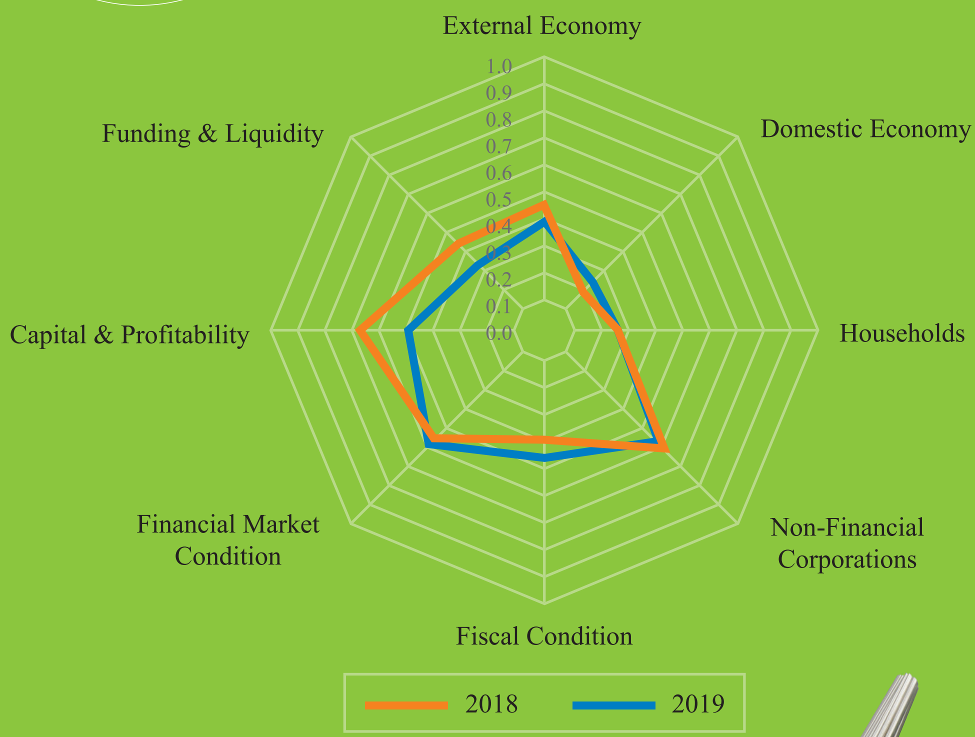
Financial Stability Report

2019 | Issue 10



BANGLADESH BANK

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- *This edition is published in 2020 and is based on data and information available as of December 2019, unless stated otherwise. Feedback on this report may be given to* ***gm.fsd@bb.org.bd.***
- *Cover Design: Financial Stability Department (FSD), Bangladesh Bank*
- *This publication can be accessed through internet at http://www.bb.org.bd/pub/index.php*

FINANCIAL STABILITY REPORT
2019

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Message from the Governor

A gloomy growth prospect was observed in the global economy throughout the year 2019. Of late the COVID-19 pandemic has sent shock waves to almost all nations causing an unprecedented loss to the health of the global economy. In fact, the pandemic has already damaged the economic and business activities in almost all jurisdictions as well as disrupted the global supply chain of international trade and business. The corrosive effects of this pandemic through human tragedy, quarantines, lockdown, social distancing and consequent freezing of economic activities may contract global output by 3.0 percent in 2020 while the balance sheet of advanced economies may further contract by 6.1 percent as predicted by the International Monetary Fund in its recent World Economic Outlook. Presumably, the adverse effects of deep economic recession in our partner countries may have spillover effects in our economy through various channels. In this perilous situation, the government along with central bank has taken a multi-dimensional approach using collective wisdom and efforts to contain the multi-faceted tidal waves of new socio-economic Tsunami and materialize our goal to sustain a reasonably strong GDP growth.

The government has already announced various stimulus packages of more than BDT 1,031.17 billion, nearly 3.7 per cent of the country's gross domestic product, to cushion the possible economic shock of deadly COVID-19 pandemic. BB has responded to these stimulus packages by providing various policy supports to maintain the growth momentum of the economy. In particular, BB has reduced CRR and Repo rate, relaxed loan classification policy, enhanced advance-deposit ratio, introduced credit refinancing schemes, lowered interest rate and increased the size of Export Development Fund to support manufacturer-exporters of the country. BB has also instructed the banks to extend 60 percent of their CSR funds to health sector and provided foreign exchange related policy support to facilitate urgent imports of life-saving drugs, medical kits or equipment and other essential medical items related to treatment of corona virus. Fintech channels have also been boosted up for smooth transactions through ATM, POS and MFS for payment of both business obligations and wages and allowances of export-oriented industry workforce.

Prior to COVID-19 outbreak, macroeconomic outlook of our country was largely stable. Real GDP experienced robust growth of 8.15 percent in FY19 compared to 7.86 percent in FY18. At end-December 2019, average annual food inflation registered a moderate decline; though general inflation recorded marginal increase due to rise in non-food inflation. Forex reserve stood at USD 32.7 billion, equivalent to nearly seven months of import payment. Wage earners' remittance registered a specially notable growth of 18 percent. Asset quality of the banking industry considerably improved as the gross NPL ratio declined from 10.3 percent in 2018 to 9.3 percent in 2019. Capital position of banking industry also rose to 11.6 percent at end-December 2019 against the minimum capital requirement (MCR) of 10.0 percent. Stress testing also indicates the industry's substantial resilience to withstand any sizeable endogenous and exogenous shock. In order to ensure a growth-supportive stable financial sector, some policy initiatives have been undertaken. We have advised banks to intensify monitoring of classified large loans through formation of 'Special Monitoring Cell'. In addition, we have instructed them to fix lending rate at 9 percent on all performing loans (except credit card lending) with effect from April 2020. Furthermore, with a view to revitalizing the capital market, BB provided temporary liquidity support to the scheduled banks through special repo facility to enhance their capital market exposure up to the regulatory limit. We expect that stimulus packages declared by the government and associated policy supports of Bangladesh Bank would enable the economy to attain its desired growth levels during the pandemic period.

We have commenced celebration of the 100th birth anniversary of Bangabandhu Sheikh Mujibur Rahman, the Architect of the Independent Bangladesh, through year-long various programs. BB has already launched commemorative gold and silver coins worth of BDT 100 and regular currency note of BDT 200 on March 17, 2020 to mark the birth centenary of Father of the Nation.

Undoubtedly, the year 2020 would be critical and challenging for all of us. The stimulus packages alone may not suffice to address all sorts of damages made by COVID-19 on our economy unless all the stakeholders of the macro-financial system extend their concerted efforts to the fullest extent. We, therefore, urge all the financial services providers and associated regulators to discharge their responsibilities with due diligence, utmost sincerity and honesty for the best national interest. We hope we will be able to revitalize our economy, restore supply chain and regain all sectors to the pre-shock state and thus continue the stability of financial system as part of building "Sonar Bangla" as dreamt by the Father of the Nation within a reasonable time span.

Finally, I hope that this report will be able to provide the stakeholders of the financial system valuable insights about the downside risks and upside potentials prevalent therein. I wish to register my appreciation to the diligent efforts of the Financial Stability Department in the preparation of this report.

Fazle Kabir
Governor

Message from the Deputy Governor

The ongoing COVID-19 pandemic poses unprecedented challenges to the stability of the global financial system, pushing the world economy to the brink of yet another recession. Amidst worldwide quarantine, lockdown and isolation, this crisis has been reshaping the global economic environment. The unexpected change in demand and disrupted supply chain are interacting to find a new equilibrium that is already evident in the global price movements of products and services. Like many other central banks around the world, Bangladesh Bank has also been taking necessary policy measures, which are expected to be conducive to tackle the shattering effects of COVID-19 on our financial landscape. We have embraced both conventional and unconventional paths to contain the adverse effects by combining fiscal and monetary stimulus approaches in a more collaborative way. Alongside government, we have introduced several refinance schemes from our own source to provide subsidized credit to different economic fronts ranging from SME, agriculture to low-income businesses.

This report reveals that amid a global economic slowdown, Bangladesh economy achieved robust growth in FY19, which could largely be attributed to some important steps taken by the policy makers ahead of 100th birth centenary of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman, the golden jubilee of independence and Vision 2021. Banking sector stability improved considerably in CY19. Deposit growth of the sector demonstrated an uptrend after registering a declining trend since CY16. Gross non-performing loan ratio reduced by 100 basis points. Profitability of the banking industry, measured by ROA and ROE, increased significantly. Moreover, capital adequacy of the banking industry, measured by capital to risk-weighted assets ratio (CRAR) improved by 110 basis points compared to the preceding year. Risk-weighted asset density ratio also decreased, reflecting the industry's willingness to redirect its position towards the less risk-taking activities. Furthermore, the banking sector appears to be reasonably resilient after applying different hypothetical credit shock, liquidity shock and market shock scenarios. However, higher indebtedness of a few large Non-Financial Corporations and increase in sectoral concentration of loans and advances remain downside risks for banking sector stability. FIs recorded improvement in terms of capital adequacy, ROA and ROE. Deterioration of asset quality in FIs warrants due diligence in asset management and new loan disbursement.

During 2019, we have undertaken a number of legal reform initiatives and policy measures having bearing on the stability of the financial system and economic growth of the country. We have revisited Bank Company Act 1991, Money Loan Court Act 2003, Negotiable Instruments Act 1881, Bank Deposit Insurance Act 2000, Bankers' Book Evidence Act 1891 and the Bangladesh Bank Order1972, which are now in final stage of ratification. Moreover, in order to enhance the efficiency of the payment and settlement system, oversight of the same has been strengthened, BACPS Operating Rules and Procedures have been upgraded and transaction limit as well as frequency of transaction of Mobile Financial Services (MFS) has been increased. In order to boost up the flow of inward remittance, a two percent cash incentive to the recipients of the wage earners' remittance has been declared since August 2019. Also, Bangladesh Financial Intelligence Unit (BFIU) has issued the "Guidelines for Prevention of Trade-based Money Laundering", which is helping the banks to take corporate shield against money laundering through export and import channels.

Though financial sector of the country was largely stable during the reviewed year, there remains further scope for improvement. Particularly, the outbreak of corona pandemic in the beginning of 2020 may expose our external sector to some challenges. Keeping this in mind, this issue of FSR included a special analysis on external sector risk outlook in the context of short, medium and long-term challenges and prospects. As this is too early to evaluate the impacts of the pandemic, this study, based on the current understanding, attempted to provide the stakeholders with an idea of our probable external sector vulnerabilities and opportunities that may open up during and after the crisis. Thus all the stakeholders including policy makers have to work jointly to address the external sector risks and retain the growth momentum of our economy at the pre-corona level. I believe that our nation can overcome this unprecedented situation with great responsibility, courage and unity as we were taught by our "Father of the Nation".

I hope, this report will provide an in-depth understanding of strength, risks and vulnerabilities of our financial system and guide financial sector stakeholders to take remedial actions. Finally, I appreciate the sincere efforts and dedication of the officials of Financial Stability Department for preparing this report in a timely befitting manner.

Ahmed Jamal
Deputy Governor

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Acronyms

ACPS	Automated Cheque Processing System
ACRL	Alpha Credit Rating Limited
AD	Authorized Dealer
ADR	Advance-to-Deposit Ratio
AMC	Asset Management Company
AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
ATM	Automated Teller Machine
BACH	Bangladesh Automated Clearing House
BACPS	Bangladesh Automated Cheque Processing System
BB	Bangladesh Bank
BBRG	Bangladesh Bank Risk Grade
BBO	Bangladesh Bank Order
BCA	Bank Company Act
BBS	Bangladesh Bureau of Statistics
BCBS	Basel Committee on Banking Supervision
BDT	Bangladeshi Taka
BEFTN	Bangladesh Electronic Funds Transfer Network
BEZA	Bangladesh Economic Zones Authority
BFIU	Bangladesh Financial Intelligence Unit
BHBFC	Bangladesh House Building Finance Corporation
BIA	Basic Indicator Approach
BO	Beneficiary Owner
BOP	Balance of Payment
BRPD	Banking Regulations and Policy Department
BSEC	Bangladesh Securities and Exchange Commission
BSI	Banking Soundness Index
BSRD	Bangladesh Systemic Risk Dashboard
BTRC	Bangladesh Telecommunication Regulatory Commission
CAB	Current Account Balance
CAR	Capital Adequacy Ratio
CCB	Capital Conservation Buffer
CDBL	Central Depository Bangladesh Limited
CFSI	Composite Financial Stability Index
CMSME	Cottage, Micro, Small and Medium Enterprise
CPI	Consumer Price Index
CRAB	Credit Rating Agency of Bangladesh Ltd.
CRAR	Capital to Risk-weighted Assets Ratio
CRISL	Credit Rating Information and Services Limited
CRR	Cash Reserve Ratio
CRSDL	Classified Rescheduled Loan
CSE	Chittagong Stock Exchange

CSR	Corporate Social Responsibility
CY	Calendar Year
DOS	Department of Off-site Supervision
DFIM	Department of Financial Institutions and Markets
DP	Depository Participants
DSE	Dhaka Stock Exchange
DSEX	DSE Broad Index
D-SIBs	Domestic Systemically Important Banks
ECAI	External Credit Assessment Institutions
ECRL	Emerging Credit Rating Ltd
EDF	Export Development Fund
EFT	Electronic Fund Transfer
EMI	Equated Monthly Installment
EPS	Earnings Per Share
EPZ	Export Processing Zone
EU	European Union
FC	Foreign Currency
FCB	Foreign Commercial Bank
FDI	Foreign Direct Investment
FEPD	Foreign Exchange Policy Department
FI	Financial Institution
FIA	Financial Institutions Act
FICSD	Financial Integrity and Customer Services Department
FRTMD	Forex Reserve and Treasury Management Department
FSC	Financial Stability Council
FSD	Financial Stability Department
FSV	Forced Sale Value
FX	Foreign Exchange
FY	Fiscal Year
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GFET	Guidelines for Foreign Exchange Transactions
GNPL	Gross Non Performing Loan
GTF	Green Transformation Fund
GVA	Gross Value Added
HHI	Herfindahl-Hirschman Index
HV	High Value
ICAAP	Internal Capital Adequacy Assessment Process
ICB	Investment Corporation of Bangladesh
ICC	International Chamber of Commerce
ICT	Information and Communications Technology
IDR	Investment to Deposit Ratio

IDRA	Insurance Development and Regulatory Authority
IFC	International Finance Corporation
IMF	International Monetary Fund
IPO	Initial Public Offering
IRR	Interest Rate Risk
IT	Information Technology
JICA	Japan International Cooperation Agency
KSA	Kingdom of Saudi Arabia
LCAF	Letter of Credit Authorization Form
LCR	Liquidity Coverage Ratio
L/C	Letter of Credit
LDC	Least Developed Country
LIBOR	London Inter-bank Offered Rate
LSF	Liquidity Support Facility
MCAP	Market Capitalization
MCR	Minimum Capital Requirement
MFI	Microfinance Institution
MFS	Mobile Financial Services
MI	Market Infrastructure
MOU	Memorandum of Understanding
MPD	Monetary Policy Department
MRA	Microcredit Regulatory Authority
MT	Mail Transfer
NAFTA	North American Free Trade Agreement
NBFI	Non-Bank Financial Institution
NBR	National Board of Revenue
NDA	Net Domestic Assets
NFA	Net Foreign Assets
NFCD	Non-Resident Foreign Currency Deposit
NII	Net Interest Income
NIM	Net Interest Margin
NNPL	Net Non-Performing Loan
NPL	Non-Performing Loan
NPSB	National Payment Switch Bangladesh
NSC	National Savings Certificate
NSDP	National Summary Data Page
NSFR	Net Stable Funding Ratio
OBU	Off-shore Banking Unit
OPEC	Organization of the Petroleum Exporting Countries
OPGSP	Online Payment Gateway Service Provider
OTC	Over the Counter
PCB	Private Commercial Bank

PCI-DSS	Payment Card Industry-Data Security Standard
P/E	Price-Earnings Ratio
PFC	Private Foreign Currency
PKSF	Palli Karma-Sahayak Foundation
POS	Point of Sale
PPP	Public Private Partnership
PSD	Payment Systems Department
PSO	Payment System Operator
PSP	Payment Service Provider
QFSAR	Quarterly Financial Stability Assessment Report
RBCA	Risk Based Capital Adequacy
RECI	Regional Economic Climate Index
REER	Real Effective Exchange Rate
RFCD	Resident Foreign Currency Deposit Accounts
RJSC	Registrar of Joint Stock Companies and Firms
RM	Reserve Money
RMG	Ready-made Garments
ROA	Return on Assets
ROE	Return on Equity
RRR	Risk Retention Rate
RTGS	Real Time Gross Settlement
RV	Regular Value
RWA	Risk Weighted Assets
SAARC	South Asian Association for Regional Cooperation
SCB	State-owned Commercial Bank
SDB	Specialized Development Bank
SLR	Statutory Liquidity Ratio
SME	Small and Medium Enterprise
TSA	The Standardized Approach
TT	Telegraphic Transfer
T-bill	Treasury Bill
T-bond	Treasury Bond
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
URSDL	Unclassified Rescheduled Loan
USA	United States of America
USD	US Dollar
VAT	Value Added Tax
WAR	Weighted Average Resilience
WIR	Weighted Insolvency Ratio

EXECUTIVE SUMMARY

This report conveys the assessment of Bangladesh Bank on the resilience of the financial system of Bangladesh to withstand risks and vulnerabilities, and the initiatives taken in the calendar year 2019 (CY19). Moreover, the report reveals structural trends and issues relating to developments and regulations of the financial sector, which might have implications for the stability of the financial system of Bangladesh.

Global economy experienced considerable downturn in 2019. Slowdown in economic growth in the advanced as well as emerging market economies contributed to the down trend in global growth in the review year. Ongoing US-China trade tension as well as geopolitical uncertainty weighed on global trade and industrial production. This caused disruption in global supply chain to a large extent. Yields on major 10-year government bonds were also on a declining trend, indicating weak market sentiment about the growth outlook. Pertinently, supply chain disruption and economic downturn in major trading partners of Bangladesh as well as inward remittance originating countries raised concern for Bangladesh economy. Furthermore, ongoing worldwide COVID-19 pandemic have already created uncertainties about the global economic outlook.

The domestic macroeconomic situation was mostly stable. A real GDP growth of 8.15 percent was recorded in the fiscal year 2019 (FY19) aided by strong domestic demand. The credit-to-GDP gap narrowed further signifying no excessive credit growth and thus no apparent threat to the stability of the financial system emanating there from. At end-December-2019, though food inflation declined, the annual average inflation increased marginally due to rise in non-food inflation. Export and wage-earners' remittance also recorded a notable increase while import growth declined in FY19, helping to improve the country's current account balance as well as the balance of payments (BOP) situation moderately. Net FDI inflow maintained the uptrend, which reflects increasing confidence of foreign investors towards Bangladesh. Accordingly, gross foreign exchange reserves stood at a sizeable amount of USD 32.7 billion at end-December 2019. The reserve appeared to be adequate to cover short-term foreign debt with ease while majority of the country's external debt was long-term in nature and considered to be of low risk. Pertinently, external debt to GDP ratio of 20 percent in December 2019 seems to be low both in comparison with major SAARC countries and international standard. Nevertheless, the economy may face some challenges due to implementation of mega projects, emergence of 4th industrial revolution globally and the country's graduation to middle income country. Moreover, the shattering effects of COVID-19 pandemic across the globe are likely to affect the domestic economy considerably in the coming days.

This report contains a financial stability map that analyzes possible stability threats for Bangladesh macro-financial system from the standpoint of a number of broad components. The map shows that, compared to 2018, stability situation improved in external economy, funding and liquidity, and capital and profitability components while slight deterioration took place in fiscal and financial market conditions.

The banking sector registered a moderate asset growth. The banking sector recorded a notable asset growth in CY19 backed by a significant rise in deposit growth. Moreover, deposit growth surpassed the loan growth. Private commercial banks (PCBs) held the major portion of earning assets of the industry, which might enhance banking sector stability through better management of their asset quality. Compared to CY18, concentration of assets within a few banks remained almost unchanged in CY19, while sector-wise loan concentration slightly increased. Market shares of liquid assets of PCBs increased substantially whereas the share declined moderately for the state-owned commercial banks (SCBs) and foreign commercial banks (FCBs). Allowing higher proportion of government deposits in PCBs might have caused the change as these deposits were relocated mostly from the SCBs to the PCBs. This stance also improved the overall liquidity situation in the PCBs, the major supplier of private sector credit. In the liability side, term deposit of the banking sector showed the highest growth among all deposit types and contributed more than half of total deposits (excluding interbank deposits), thereby providing a stable funding source to banks.

Asset quality of the banking sector showed a considerable improvement at end-December 2019. Gross non-performing loan (NPL) ratio of the banking sector declined notably from 10.3 percent in CY18 to 9.3 percent in CY19. It appears that the main driving force for decline in industry's overall NPL ratio was improvement of asset quality in SCBs and SDBs. However, gross NPL ratios still remained high for these two categories of banks. During the review year, net NPL ratio dropped significantly to 1.0 percent from 2.2 percent of the preceding year. Banking sector maintained a higher level of loan-loss provision in CY19 compared to that of CY18, resulting in an increased provision maintenance ratio. Nonetheless, high volume of provision shortfall in SCBs still remained a concern for the banking industry.

The banking sector demonstrated a moderate increase in net profit after taxes in CY19 compared to that of CY18. The rise in net profit during CY19 could partly be attributed to lower provision requirements due to partial cash recovery, rescheduling and restructuring of non-performing loans. Accordingly, return on assets (ROA) and return on equity (ROE) of the banking industry increased as well. However, net interest margin (NIM) decreased slightly in CY19 due to lower interest earning rather than interest expense. Both the weighted average lending rate and deposit rate recorded a slight increase from previous year. However, overall interest rate spread reduced due to relatively higher increase in weighted average deposit rates.

Capital to risk-weighted assets ratio (CRAR) of the banking sector improved markedly in CY19. At end-December 2019, CRAR of the banking industry stood at 11.6 percent against the regulatory requirement of 10 percent. Considerable increase in capital base of SCBs and PCBs, due to notable improvement in asset quality, boosted the overall CRAR of the banking industry in the review year. Banking industry maintained a Capital Conservation Buffer (CCB) of 1.6 percent against the regulatory requirement of 2.50 percent for CY19. However, PCBs and FCBs maintained both CRAR and CCB much above the regulatory requirement. Additionally, the banking sector maintained a leverage ratio well above the regulatory minimum requirement of three (03) percent. Still, over-leveraged position of SCBs in relation to their weak capital base remains a concern for financial stability.

Liquidity situation of the banking sector, particularly in PCBs, appeared to be easing in CY19. The aggregate advance-to-deposit ratio (ADR) of the banking industry decreased to 77.3 percent in CY19 from 77.6 percent in CY18 as the growth of deposits (excluding interbank deposits) outpaced the growth of loans and advances during the review year. However, call money borrowing rate experienced a rising trend in the second half of the review year. This uptrend might be due largely to higher rate of interest on the treasury bills and bonds during the last two quarters of CY19 and frequent borrowing of the financial institutions (FIs) from the call market to meet their emergency obligation in the last quarter of CY19. Nevertheless, the banking industry as a whole was able to maintain the Basel III liquidity standards - liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)-above the regulatory requirement of 100 percent throughout the year.

Islamic Shari'ah based banks mostly performed better in CY19 compared to CY18. Islamic banks observed a steady growth in terms of assets, liabilities, deposits, investments, profit and shareholders' equity in CY19 compared to the preceding year. Islamic banks maintained a market share of around 20 percent of total banking sector assets. Asset quality of the Islamic banks improved marginally in the review year. CRAR of these banks stood at 12.4 percent. Their net profit after tax recorded higher growth over the previous year, leading to better profitability. Besides, the Islamic banks maintained LCR and NSFR higher than the regulatory requirement.

Banking sector's overall risk exposures remained broadly stable. In CY19, the overall risk of the banking sector, measured by Risk Weighted Asset (RWA) Density ratio, showed a downward trend, indicating banking industry's willingness to redirect its position towards less risk-taking activities. In the review year, banks were able to reduce the market risk significantly. Credit risk weighted assets showed a gradual improvement with respect to total asset growth. However, operational risk was the area that warrants more attention as operational RWA showed a considerable increase in CY19 over the previous year.

Banking and FIs sectors appeared to be resilient to different shock scenarios. During the review year, banking and FIs sectors appeared to be broadly resilient to different stress scenarios. However, the significant amount of loan concentrated among a few borrowers and considerable level of NPL in some banks and FIs could pose risk to the overall financial stability. Strict compliance of the guidelines on large loan/single borrower exposure limit would be helpful in reducing risks on banks' exposure to large corporate or to specific group or specific sector. Moreover, the impact of COVID-19 outbreak could be another potential threat for the stability of the financial system. Nevertheless, the different policy initiatives as well as incentive measures by the central bank and the government may prevent or mitigate systemic risk and help cope with the pandemic in the upcoming days.

Financial institutions (FIs) sector exhibited mixed trend in CY19. Total assets of FIs grew slightly in CY19, which was mainly attributable to a rise in FIs' borrowings and equity. As a source of fund, share of borrowings and equity increased considerably against a significant decrease in shares of deposits. Accordingly, FIs' liabilities to assets ratio declined slightly. Aggregate capital adequacy ratio (CAR) of FIs increased and stood at 17.5 percent, much higher than the regulatory requirement of 10 percent. The profitability of the FIs also showed an upward trend compared to CY18. However, asset quality of FIs remained a concern as classified loans and leases ratio increased further in the review year. Hopefully, almost all the FIs were able to maintain the required loan loss provision. Besides, FIs maintained cash reserve requirement (CRR) of 2.5 percent and statutory liquidity ratio (SLR) of 18.8 percent in line with the regulatory requirements as of end-December 2019.

The capital market in Bangladesh was bearish during CY19. The major indicators, such as index value, market capitalization and turnover declined at the Dhaka Stock Exchange (DSE), the prime bourse in Bangladesh, compared to those of the preceding year. Decline in confidence of the investors in the market might have been one of the reasons behind this bearish development of the stock market in CY19. Banking sector claimed the highest market capitalization, which reflects the dominance of the banking sector in the DSE. However, as banking industry's exposure to capital market remained much below the BB's allowable limit, it appears that equity price shock would not pose any stability threat to the banking sector in the near-term.

In December 2019, the treasury auction yield curves for both short-term treasury bill and long-term treasury bond exhibited an upward trend compared to that of December 2018 and June 2019. However, the rise was larger for short-term yield and thus flattened the yield curve. Generally, a flattened yield curve indicates an early sign for economic slowdown and a lower expected inflation rate. But in the absence of a vibrant secondary bond market, such an indication from the primary market may not be reflective of the credit market. Moreover, short-term variation in the yield curve may be due to temporary liquidity needs of financial intermediaries, which might be eased periodically and may not necessarily have an impact on long-term economic activities. Moreover, bond market in Bangladesh remained government bond dominated, while activities of which were mostly based on primary auctions.

A moderate liquidity condition was observed in the domestic money market during CY19. Lower issuance of BB Bill and large liquidity support by BB signifies, to some extent, the prevalence of liquidity pressure in the money market. Though the interbank repo rate and call money rate exhibited some volatility, liquidity pressure was minimal in the money market.

The financial infrastructure in Bangladesh continued to evolve to ensure an efficient and safe payment and settlement system. During the review year, transactions through various payment platforms increased significantly, indicating stakeholders' confidence towards the growing efficiency and safety measures of the financial infrastructure. Besides, banks' coverage of their online branches also enhanced in CY19. Since automation in payment system pose several cyber and operational risks, BB always remains vigilant over these issues to ensure a secured payment system. In CY19, the payment infrastructure did not pose any systemic risk for the financial system of Bangladesh due to stringent monitoring and supervision by BB. Although some domestic frauds and forgeries were noticed, but they did not create any major risk that could adversely affect the financial stability of the country.

During the review year, the foreign exchange (FX) market was mostly stable. No abrupt volatility was observed in the FX turnover while FX net open position remained well below the approved limit of BB. Due to sizeable imports and L/C settlements depreciation pressure on the nominal exchange value of BDT against US dollar continued in CY19. However, strong growth in wage earners' remittances along-with BB's sale of USD in the market eased down the pressure to some extent and helped to manage the depreciation pressure. Gross FX reserves also increased and appeared to be adequate in terms of import coverage and ability to withstand probable external shocks in the near future. During the period, real effective exchange rate (REER) index experienced further appreciation, reflecting a diminishing export competitiveness of the country. However, due to the limited exposure, banks' FX risks remained low during the review period.

The overall performance of MFIs in Bangladesh was reasonably stable during FY19. Although NPL ratio of the MFI sector is relatively low, compared to the banking sector, it demonstrated an increasing trend during the last couple of years, which deserves special attention. MFIs market was found to be highly concentrated among the top 10 MFIs, which might cast a stability concern if any of those MFIs' performance deteriorates abruptly due to adverse shocks. Besides, overlapping of loans to individual borrowers would create credit trap in the long run if the borrower selection and their credit needs are not assessed properly. Nevertheless, profitability indicators such as ROA and ROE remained quite high while sustainability indicators such as donation to equity ratio declined sharply in FY19 indicating improvement in self-sustainability of this sector.

Performance of the insurance sector remained subdued in CY18. Due to unavailability of data for CY19, performance of insurance sector has been analyzed for CY18. Insurance penetration ratio and insurance density ratio, indicators of insurance sector development, were substantially low compared to other South-Asian countries. Though asset size of insurance sector increased, as a percentage of GDP it remained very low. More than 70 percent assets of insurance sector were held in investment and fixed deposits in CY18. Hence, the sector may face investment risk as deposit rates were downtrend in most banks and FIs while capital market remained subdued for most part of last few years. Moreover, profitability indicators of the life insurance sector showed a declining trend while the same of general insurance sector exhibited mixed performance in CY18 compared to the previous year. Concentration of insurance business among the top five (05) companies warrants intensive supervision as well as monitoring because of their systemic importance in the insurance sector. However, due to its very limited exposure to different financial sectors, adverse shocks in insurance sector may not appear to be a big concern for financial stability.

In sum, a considerable level of stability and resilience was observed in the financial sector of Bangladesh during CY19 with a few exceptions. However, in the wake of COVID-19 pandemic, the vulnerabilities and uncertainties that have hit the global macro-financial landscape may pose some unconventional challenges for Bangladesh economy in the near future.

Chapter 1

MACROECONOMIC DEVELOPMENTS

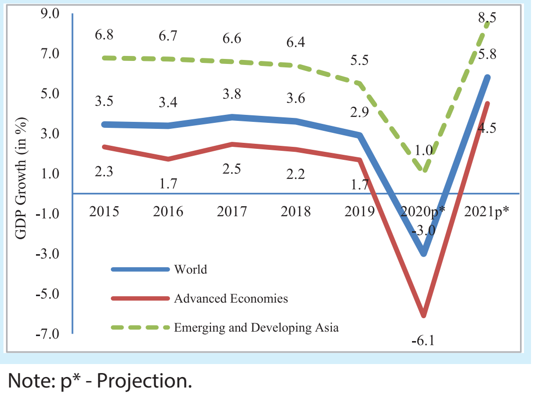
After substantial growth in 2018, the global economy experienced a considerable downturn in 2019 attributable largely to worldwide trade and geopolitical tensions accompanied by the softening of growth in major advanced and emerging market economies. A declining trend was also observed in 10 year government bond yields of major economies, indicating a weakening market sentiment about the growth outlook. Consequently, Bangladesh economy may encounter probable external shocks originating from growth slowdown in its major trading partners. Price of crude oil witnessed sharp decline in the wake of COVID-19 pandemic, which might provide some comfort to domestic imports while posing threats to wage earners' remittances from oil producing countries. However, widening interest rate differentials between domestic and international market may encourage capital inflow and enhance debt sustainability of Bangladesh. In the domestic context, Bangladesh achieved a marked real GDP growth of 8.15 percent in FY19 aided by strong domestic demand. The credit-to-GDP gap narrowed further, signifying no excessive credit growth and thus no apparent threat to the stability of the financial system emanating therefrom. At end-December-2019, the annual average inflation increased slightly due to rise in non-food inflation. Export and wage-earners' remittance also recorded a notable increase while import growth declined in FY19, helping to improve the country's current account balance as well as the balance of payments (BOP) situation moderately. Net FDI inflow maintained an uptrend, which reflects increasing confidence of foreign investors towards Bangladesh. All these factors contributed to the accumulation of a sizeable foreign exchange reserves of USD 32.7 billion at end-December 2019. This reserve appeared to be adequate to cover all short-term foreign debt with ease while majority of the country's external debt was long-term in nature and considered to be of low risk. Pertinently, external debt to GDP ratio of 20 percent in December 2019 seems to be low in comparison with both major SAARC countries and international standard. Nevertheless, the economy may face some challenges due to implementation of mega projects, emergence of 4th industrial revolution globally and the country's graduation to middle income country. Moreover, the shattering effects of COVID-19 pandemic across the globe are likely to have spillover effects on the domestic economy in the coming days.

1.1 GLOBAL MACRO-FINANCIAL ENVIRONMENT

1.1.1 GLOBAL MACROECONOMIC ENVIRONMENT

Global output growth has been witnessing a downward trend since 2017 and is likely to continue the same for an extended period (Chart 1.1). In 2019, the slowdown in some emerging economies along with worldwide trade and geopolitical tensions further reduced the global economic growth to 2.9 percent. Economic growth of advanced economies and Emerging Asia fell to 1.7 percent and 5.5 percent respectively.

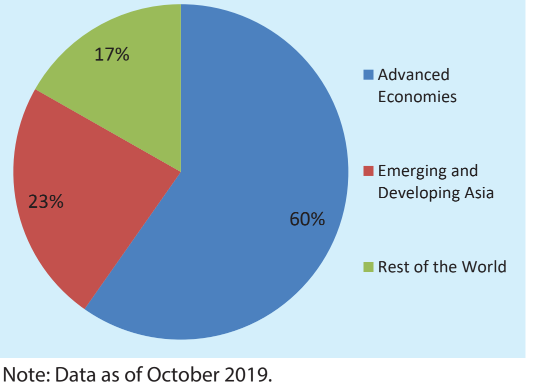
CHART 1.1: WORLD GDP GROWTH



Note: p* - Projection.

Source: World economic outlook, April 2020.

CHART 1.2: SHARE OF WORLD GDP

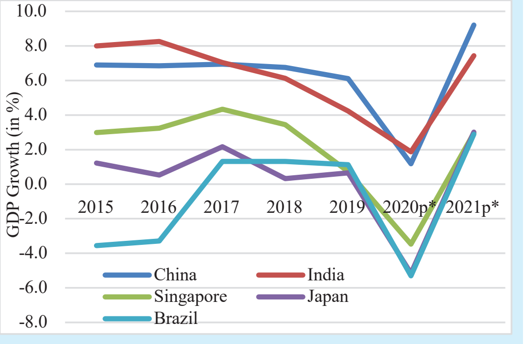


Note: Data as of October 2019.

Source: Data from IMF; FSD Staff Calculation.

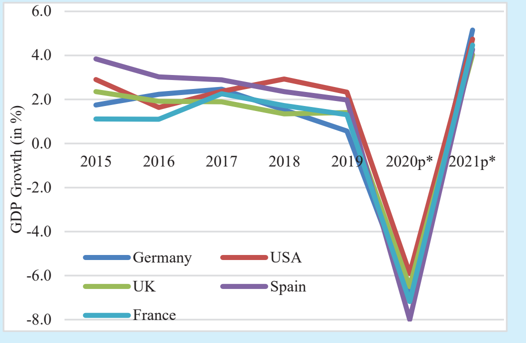
At the end of 2019, the World GDP (in current price) stood at USD 87.27 trillion. In this economic mass, 40 advanced countries have a 60 percent share, whereas 30 emerging and developing Asian countries have a 23 percent share, and the rest of the world has a 17 percent share (Chart 1.2).

CHART 1.3: GDP GROWTH OF TOP IMPORT ORIGINATING COUNTRIES



Source: *World Economic Outlook, April 2020.*

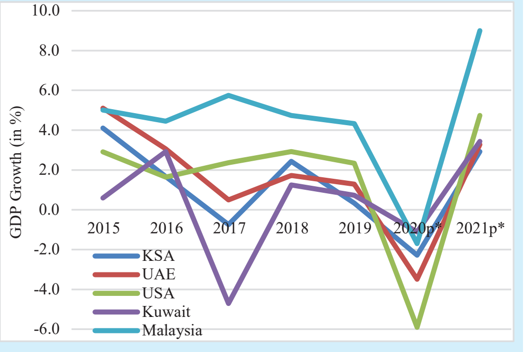
CHART 1.4: GDP GROWTH OF TOP EXPORT DESTINATION COUNTRIES [1]



Source: *World Economic Outlook, April 2020.*

As the global economy is enduring some strain and supposed to remain subdued in the near term, developing economies may face some headwinds from external sectors in the short-term. Pertinently, global growth has both supply-side and demand-side implications for Bangladesh economy. Chart 1.3 shows that the top 5 (five) import originating countries for Bangladesh (i.e., China, India, Singapore, Japan, and Brazil) experienced slower GDP growth in 2019. Further economic slowdown and production uncertainty of these economies due to COVID-19 may hurt import cost of Bangladesh economy.

CHART 1.5: GDP GROWTH OF TOP 5 REMITTANCES SENDING COUNTRIES



Source: *World Economic Outlook, April 2020.*[2]

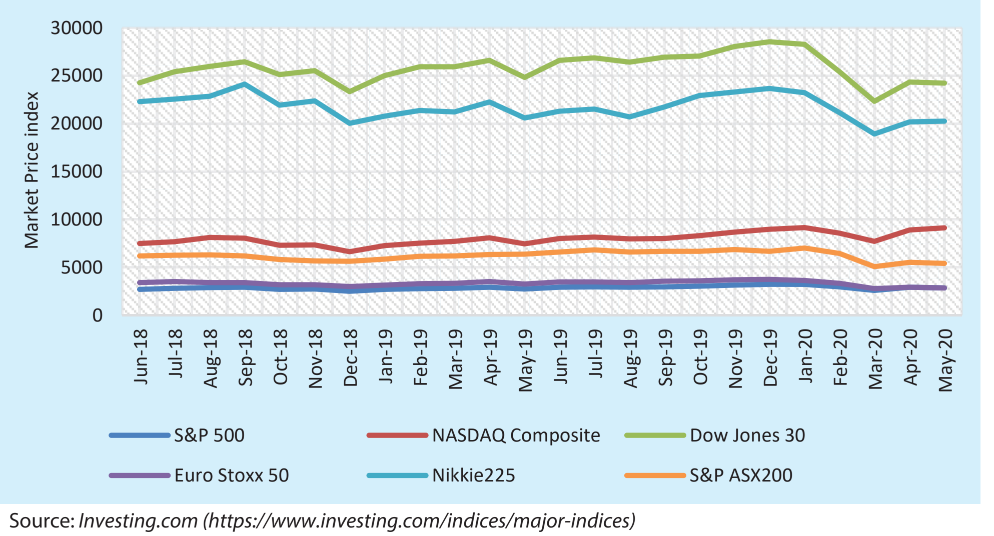
From the supply-side perspective, the top 5 (five) export destination countries for Bangladesh economy are the USA, Germany, UK, Spain, and France. All these countries also experienced slower economic growth in 2019. Further slowdown in GDP growth projected for these economies in 2020 may be a matter of concern for Bangladesh's exports. Additionally, several weaknesses relating to the external front might pose some risks to the BOP in the long-term unless they are addressed prudently.

Data reveal that the top 5 (five) remittance source countries for Bangladesh in 2019 were KSA, UAE, USA, Kuwait, and Malaysia. Again, these countries also experienced slower economic growth in 2019. If this trend continues as projected by the IMF in its World Economic Outlook, then overseas employment risk, as well as remittance risk for Bangladesh economy, may inflate. However, projected better economic prospects for these economies in 2021may usher optimism for overseas employment and inward remittance of Bangladesh's economy (Chart 1.5).

1 P = projected GDP Growth

2 P = projected GDP Growth

CHART 1.6: MOVEMENT OF MAJOR GLOBAL STOCK MARKET INDICES IN 2019



Source: *Investing.com (https://www.investing.com/indices/major-indices)*

1.1.2 GLOBAL FINANCIAL MARKET ENVIRONMENT

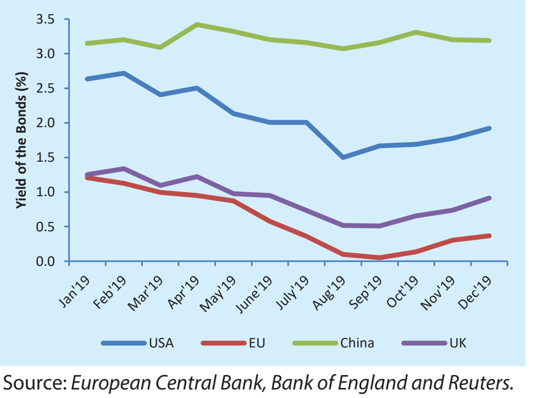
1.1.2.1 DEVELOPMENT IN MAJOR FINANCIAL MARKETS

The year 2019 started with a bearish trend but ended up with the biggest increase in the indices of most of the major global stock markets since 2013. A significant policy shift of the Federal Reserve has immense impact on such a dramatic gain in the stock markets. Throughout the 2018, the Fed has raised its rate four times and took its rate to 2.5 percent. Taking a complete U-turn, it stepped down the rate three times in 2019. Lowering interest rates instigated the investors to inject more money into stock with a persistent expectation of receiving higher returns. This year also experienced an unforeseen boom in the tech sector that drove the stock market up throughout the period. In particular, S&P 500, NASDAQ, Euro Stoxx 50, and Dow Jones 30 registered substantial increases of 28.9, 35.2, 24.8, and 22.3 percent of their respective indices from December 2018 to December 2019 (Chart 1.6). Japanese Nikkei 225 and Australian S&P/ASX 200 also attained high gains of 18.2 and 18.4 percent respectively during this year. The markets, however, seem to face some hard times in 2020, largely due to the global uncertainties and economic slowdown resulted from the ongoing COVID-19 pandemic. Since financial markets are inter-linked, this may pose substantial spillover risks for the emerging economies including Bangladesh.

1.1.2.2 YIELD OF GOVERNMENT BOND OF MAJOR ECONOMIES

The yields of all the major international 10-year government bonds had downward trends until August 2019 which started to rise thereafter (Chart 1.7). Noticeably, year-end yield rates of these bonds were much lower than the yield rates of earlier months of 2019, except the Chinese government bond. Falling interest rates make bond prices to rise and bond yields to fall. Hence, the downtrend in the yield rate may induce bondholders to sell the bond and those investors may be tempted to opt for alternative risky investments expecting higher returns. It may be likely that such investors may switch to other economies including developing ones as an attempt to search for higher yield.

CHART 1.7: YIELD OF 10 YEARS GOVERNMENT BOND OF MAJOR ECONOMIES

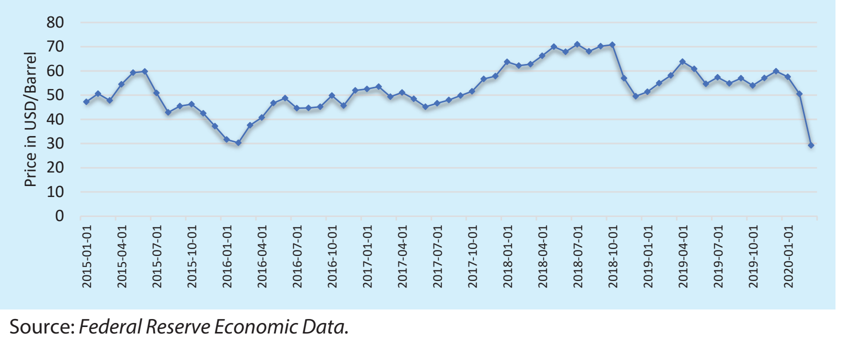


Source: *European Central Bank, Bank of England and Reuters.*

1.1.2.3 CRUDE OIL PRICES IN INTERNATIONAL MARKET

An important import commodity of intermediate goods is oil as its demand and price movement may influence the import growth. Oil price also acts as an influential driver for domestic inflation since the production and transportation cost largely depends on the oil price. Chart 1.8 displays the global crude oil price movement in the last five years which seems somewhat stable with a few exceptions. After a sharp decline near the end of 2018, the oil price started creeping up slowly in 2019 from USD 51.4 per barrel at first January to USD 63.9 per barrel in first day of April; then after little ups and downs it ended the year with a price of USD 57.5 per barrel. With the onset of COVID-19 since the early 2020, the price has been in sharp declining trend. From import point of view, the global oil price situation might provide some comfort zones for Bangladesh; however, the potential threat might come as the remittance inflows from the oil-exporting countries (especially, from the Gulf countries) would face significant adverse shocks.

CHART 1.8: CRUDE OIL PRICE (WTI)*



Source: *Federal Reserve Economic Data.*

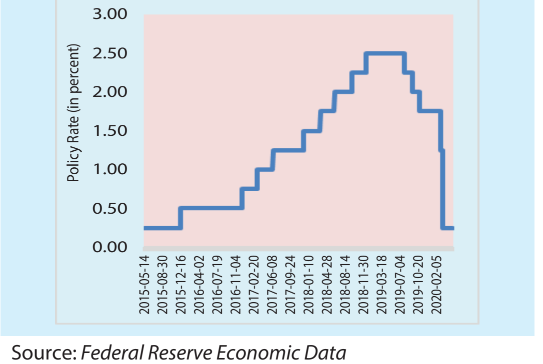
** West Texas intermediate (WTI), also known as Texas light sweet, is a grade of crude oil used as a benchmark in oil pricing.*

1.1.2.4 INTERNATIONAL INTEREST RATE ENVIRONMENT

Central banks in different countries revised down the policy rate to stimulate growth (Table 1.1). US Federal Reserve cut its policy rate three times by 0.25 percentage point since the middle of 2019[3] (Chart 1.9). Low global interest rates make the debt more sustainable and help to contain the rise in macroeconomic risks and market volatility.

As the domestic interest rate remains stable and the global interest rates are moving downwards (as highlighted in Table 1.1), the widened interest rate differentials might encourage capital inflow in the near future. Also, portfolio investment and short-term foreign debt might increase. Consequently, the exchange rate and foreign exchange reserve might be impacted favorably in the near-term due to positive exogenous interest rate shocks.

CHART 1.9: US FED FUNDS TARGET RANGE (UPPER LIMIT)



Source: *Federal Reserve Economic Data*

TABLE 1.1: POLICY RATE CUTS IN COUNTRIES

Country	Rate (Dec. 19)	Direction	Previous Rate	Change Date
US	1.75%	↓	2.00%	30-Oct-19
China	4.15%	↓	4.20%	20-Nov-19
Australia	0.75%	↓	1.00%	01-Oct-19
S. Korea	1.25%	↓	1.50%	16-Oct-19
India	5.15%	↓	5.40%	04-Oct-19
Mexico	7.25%	↓	7.50%	19-Dec-19
New Zealand	1.00%	↓	1.50%	07-Aug-19

Source: *Various websites of Central Banks.*

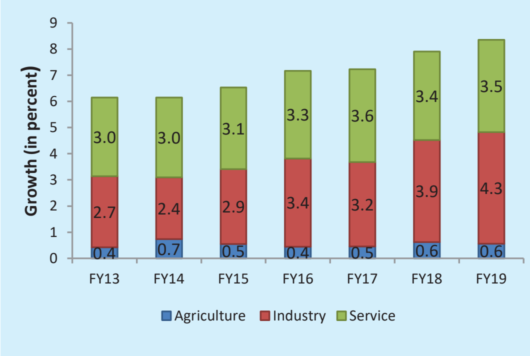
3 COVID-19 has insisted to cut down the rate further to near zero in March 2020.

1. 2 DOMESTIC MACRO-FINANCIAL DEVELOPMENT

1.2.1 GDP GROWTH

Bangladesh sustained a well-paced GDP growth, ending up with 8.15 percent in FY19 on the back of strong domestic demand. Domestic demand, comprising of consumption and investment, increased by 11 percent, and export and remittance rose by 10.5 percent and 9.6 percent respectively in FY19. During the period, agriculture, industry and service sectors grew by 3.9 percent, 12.7 percent, and 6.8 percent respectively on an individual basis. The corresponding figures in FY18 were 4.2 percent, 12.1 percent, and 6.4 percent respectively. In terms of sector-wise performance, the contribution of service and industry sectors remained the key drivers of the Gross Value Added (GVA). Pertinently, the significant contribution of the industry sector in the GVA was mainly attributed to manufacturing, energy, and construction sub-sectors (Chart 1.10). Besides, Chart 1.11 reveals that the real GDP growth of Bangladesh remained the highest among the peer countries.

CHART 1.10: GROSS VALUE ADDED (GVA) GROWTH



Source: *Bangladesh Bureau of Statistics.*

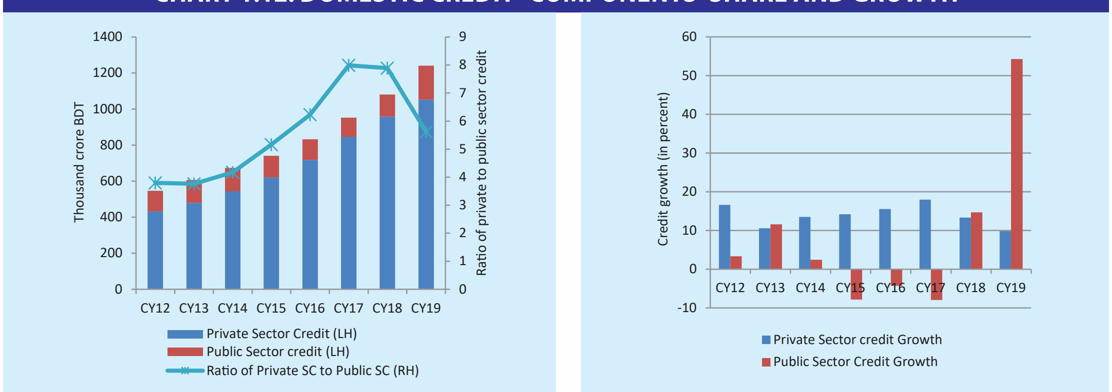
CHART 1.11: GDP GROWTH OF SELECTED ASIAN COUNTRIES

Note: Figures in percent.
Source: *World Economic Outlook, IMF; Economic Trends, BB.*

1.2.2 DOMESTIC CREDIT

In CY19, the private sector credit growth edged down considerably, while the growth in the public sector[4] was prominent. The public sector credit rose by 54.3 percent as opposed to 9.8 percent growth recorded in private sector credit. The ratio of private sector credit to public sector credit came down to 5.6 in 2019 from 7.9 in 2018 (Chart 1.12). A slowdown in the revenue collection and a fall in the sale of national saving certificates may have prompted the government to take increased credit support from the domestic banking system. On the other hand, the slowdown in private investment

CHART 1.12: DOMESTIC CREDIT- COMPONENTS' SHARE AND GROWTH



Source: *Monthly Economic Trend, BB*

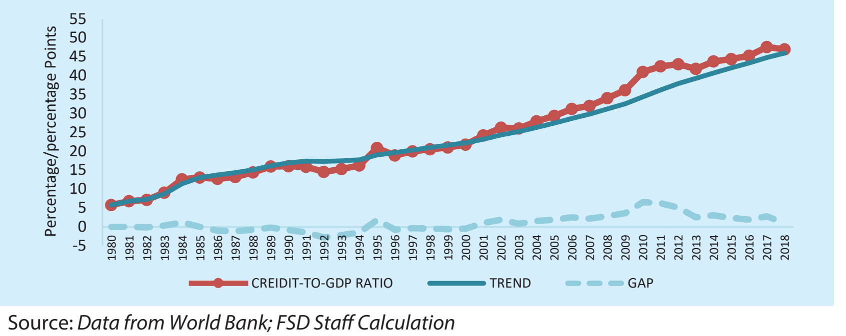
4 Public sector credit consists of gross credit to government netting of government deposit held in the banking system plus other public sector credit.

as indicated by reduced import, especially of capital machinery and major intermediate goods of the apparel sector, explained much of the reason for sluggish demand of credit by the private sector. On the supply-side, the higher perceived risk among banks might have discouraged banks to expand credit to the private sector.

1.2.3 CREDIT TO GDP GAP

The credit-to-GDP gap has been estimated using the Hodrick-Prescott filter approach following the guidance of the Basel Committee on Banking Supervision (BCBS)[5]. The estimated credit-to-GDP gap data implies that there had been no significant excessive credit growth in the financial system of Bangladesh during the period of FY1980-2018[6]. In most of the estimation period, the credit-to-GDP gap remained well below 5 percent except the period of FY2010-2011 when it crossed the level of 5 percentage points. Moreover, compared to FY17, the credit-to-GDP gap narrowed further in FY18, signifying no apparent sign of stability threat to the financial system stability emanating from domestic credit flow to the private sector (Chart 1.13).

CHART 1.13: THE CREDIT-TO-GDP RATIO, ITS TREND, AND THE GAP



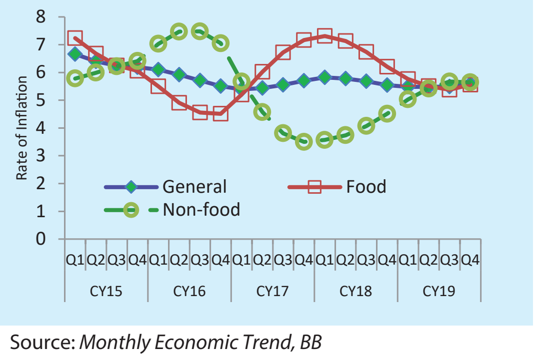
Source: *Data from World Bank; FSD Staff Calculation*

1.2.4 INFLATION

The annual average CPI inflation (base: FY06=100) in Bangladesh posted at 5.59 percent, increasing by 0.05 percentage point from 5.54 percent of end-CY18 (Chart 1.14), largely attributed to rise in non-food inflation.

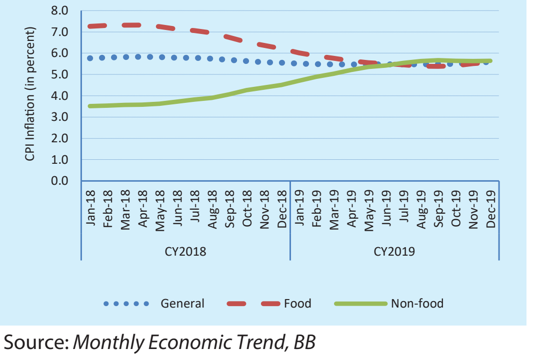
During the period, the annual average food inflation declined to 5.56 percent from 6.21 percent of end-CY18 driven by a good harvest of boro rice and waning in the prices of vegetables and fish. However, annual average non-food inflation rose to 5.64 percent at end-CY19 from 4.51 percent of end-CY18 largely due to strong domestic demand.

CHART 1.14: INFLATION AND ITS COMPONENTS



Source: *Monthly Economic Trend, BB*

CHART 1.15: 12-MONTH AVERAGE CPI INFLATION



Source: *Monthly Economic Trend, BB*

5 See Financial Stability Report 2018 of Bangladesh Bank for procedural details.

6 Data for FY19 was not available till the preparation of the section.

When the monthly scenario is taken into account, food inflation recorded a slight decline in the second half of the year 2019 compared to the first half. The reverse was observed in the case of non-food inflation while general inflation remained mostly stable throughout the year (Chart 1.15). In sum, no stability risk was observed in CY19 from an inflationary point of view.

1.3 EXTERNAL SECTOR DEVELOPMENTS

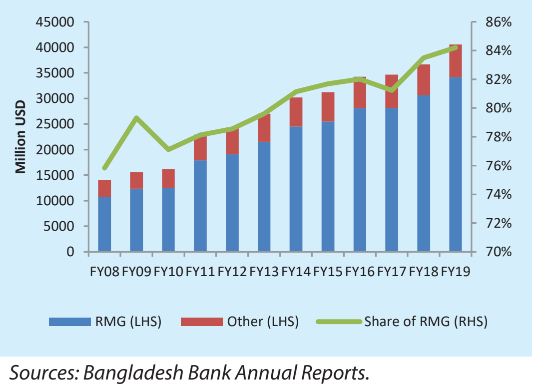
Considering the dynamics of the global supply chain and increasing interconnectedness, the external sector has become a significant and integral part of the sustained economic growth and development of Bangladesh. Growing exports, substantial wage-earners' remittance, and improving the environment for foreign direct investments have been the key drivers of the economy for a long time. Therefore, any risks or externalities associated with its Balance of Payment (BoP) may eventually affect the domestic economic activities, and the overall financial stability, in general. As the country is in the process of graduating toward a developing country and attaining middle-income status within the next few years, it has now become vital for Bangladesh to identify the potential risks to its external sector and adopt possible policy stances accordingly.

1.3.1 EXPORT AND IMPORT

Data reveals that the aggregate export of the country grew by 7.5 percent on average in the last ten years (Chart 1.16). The share of export relative to GDP declined to 13.4 percent in FY19 which was 15.4 percent in FY08. Bangladesh's export is largely dominated by Ready-Made Garments (RMG), which comprises woven garments and knitwear garments. Chart 1.16 depicts that RMG flourishes at a better pace than other export goods. In FY08, the share of RMG in the total export was 75.8 percent which reached 84.2 percent in FY19. A combination of government policy support, flexible labor supply, technical skill development, and provision of preferential market access by the buyer groups contributed to the thriving of this sector. On the other hand, the growth of other major export goods such as jute products, home textiles, and footwear was not at par with the overall export growth.

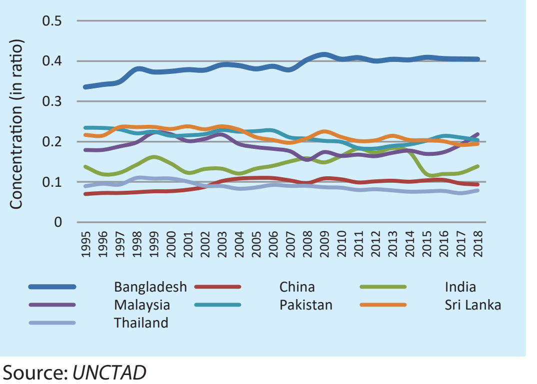
Chart 1.17 corroborates that the export product concentration[7] of Bangladesh is much more prominent than the selected peer Asian countries. Relying on only a few varieties of products might risk the export earnings due to the emergence of events such as loss of competitive advantage against the rivals, volatility in market demand and protectionism measures by the buyer groups, etc.

CHART 1.16: EXPORTS OF BANGLADESH (RMG & OTHERS)



Sources: Bangladesh Bank Annual Reports.

CHART 1.17: EXPORT PRODUCT CONCENTRATION



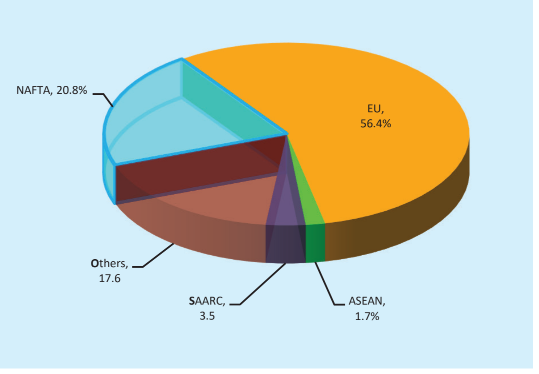
Source: *UNCTAD*

7 Export Product concentration is defined as a normalized Herfindahl-Hirschman index of the product concentration of merchandise exports at the country level. It is calculated according to the following formula:

$$H_j = \frac{\sqrt{\sum_{i=1}^{N}\left(\frac{Xi.j}{Xj}\right)^2} - \sqrt{\frac{1}{N}}}{1-\sqrt{\frac{1}{N}}}$$

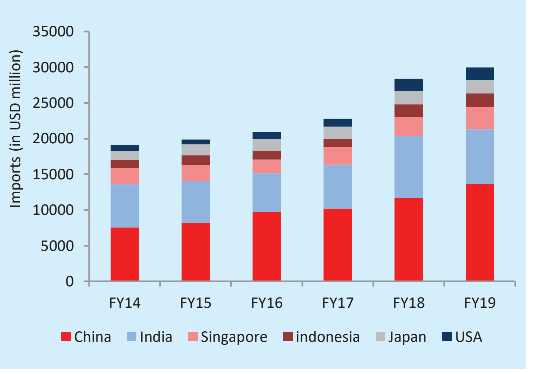
Where Hj is the product concentration index of exports for country j, Xi,j is the value of exports of product i by country j, Xj is the total value of exports of country j, and N is the number of products exported at the three-digit level of the Standard International Trade Classification (SITC) revision 3. This index ranges from zero to one, with a larger value denoting a higher concentration of exports.

CHART 1.18: EXPORT DESTINATIONS OF BANGLADESH IN FY19



Source: *Statistics Department, BB*

CHART 1.19: TOP IMPORTING COUNTRIES OF BANGLADESH



Source: *Statistics Department, BB*

Bangladesh has traditionally been focusing only on the EU and the USA for a long time to export RMG products, despite demand existed in other parts of the world. EU and NAFTA are the major markets for Bangladesh's export as shown in Chart 1.18. Mentioning precisely, 56.4 percent of total exports were shipped to the EU while 20.8 percent of exports were destined to NAFTA whose shares in global GDP are 15.8 and 18.1 percent respectively. This concentrated traditional market may give rise to some risks to the export of Bangladesh as rivals are striving to penetrate these markets on one hand and Bangladesh does not have adequate diversity in export products on the other. Furthermore, Bangladesh is going to face stricter requirements for preferential market access and loss of few LDC-specific preferential accesses in the EU after 2027 while the graduation (from LDC) is expected to take effect in 2024. This will result in a hike in tariff and erosion of competitive edge in the long run, which needs to be addressed through negotiating bilateral/regional trade agreements, financial and foreign exchange policy incentives from the authorities. In the broader context, Bangladesh requires to focus on adopting and implementing both product and market-driven export diversification and expansion strategies. For this, various efforts such as development in trade infrastructure, favorable trade policies, and incentivizing new promising sectors should be reinforced.

On the other hand, Chart 1.20 and 1.21 show the category-wise import volume and growth in different years to better grasp the trend of import demand which in turn creates pressure on the current account balance (CAB). Category-wise import volume shows that intermediate goods and capital goods dominate the import volume, which appears usual for a rapidly developing country like Bangladesh. The major sources of imports are China, India, Singapore, Indonesia, Japan, and the USA. Among these countries, Bangladesh is tilted highly to China and India as illustrated in Chart 1.19. Because of this concentration, Bangladesh is subjected to higher switching costs and lesser power to negotiate a favorable price. So, supply constraints from these countries might result in higher switching costs or higher prices, which would erode the competitiveness of import-backed exports due to higher import costs. Furthermore, inflation in those countries might be transferred to Bangladesh through the import channel.

CHART 1.20: CATEGORY WISE IMPORT

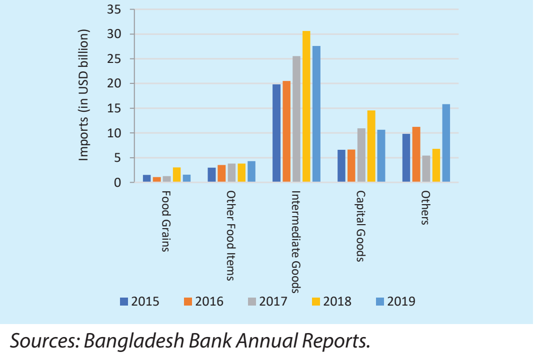
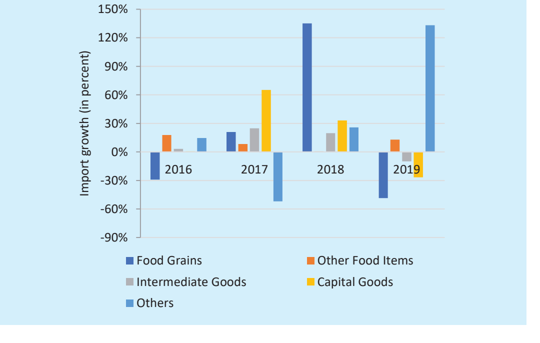


CHART 1.21: CATEGORY WISE IMPORT GROWTH



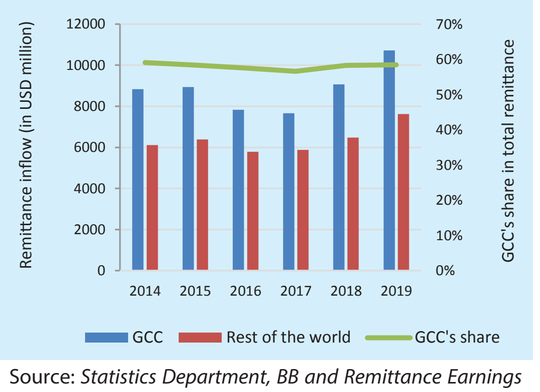
Sources: Bangladesh Bank Annual Reports.

1.3.2 REMITTANCE

Inward foreign remittance is the second-highest means of foreign exchange earnings in Bangladesh. Historically, Bangladesh has been assuming the trade deficit, which was counterbalanced by foreign remittance to safeguard the CAB from being weakened. This helped contain external shock through building up foreign exchange reserves and stabilizing the exchange rate. Chart 1.22 exhibits that inward foreign remittance shows a rising trend, with Gulf Cooperation Council (GCC) countries comprising Saudi Arabia, UAE, Kuwait, Qatar, Oman, Bahrain making up the lion's share of it. However, the share of remittance from countries other than GCC has also been growing over time, thereby minimizing the concentration of remittance earnings. Nonetheless, remittance from GCC countries is critical to the soundness of the Balance of Payment of Bangladesh. Economic slowdown or reduction in oil revenues in those countries might slow down the growth of remittance inflow.

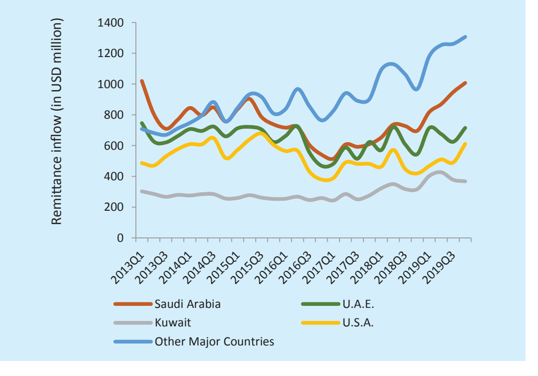
The country experienced continuous high growth momentum in wage earners' remittance, though growth was slowed down a little in FY16 and FY17. Despite weak global growth, inward wage earners' remittance soared up again, recording a rise of 18 percent in CY19 compared to the preceding year. Gulf nations faced milder growth due to their reduced oil production in persuasion with OPEC+ agreement. However, the stimulus policy stance of the governments in some of these countries helped protect further deterioration in their economic growth. Consequently, remittance from most of these countries, e.g., Saudi Arabia, UAE, and Kuwait, maintained an uptrend in general. More specifically, the top remitting nation Saudi Arabia remained a major driver in remittance source in 2019 (Chart 1.23). Two (02) percent cash incentives offered by the government of Bangladesh coupled with depreciation of Taka supported considerable growth in remittance from the viewpoint that these factors may have encouraged the wage earners to send money through the formal channel, rather than an unofficial or illegitimate channel. Looking forward, a sudden twist in oil politics among oil-producing countries and coronavirus pandemic might create some uncertainty in the inflow of remittance. On the positive side, the potential to recruit more workers in UAE emerges as the UAE government is rethinking to open the labor market in all sectors for Bangladesh.

CHART 1.22: INWARD FOREIGN REMITTANCE TREND



Source: *Statistics Department, BB and Remittance Earnings (Quarterly), BB*

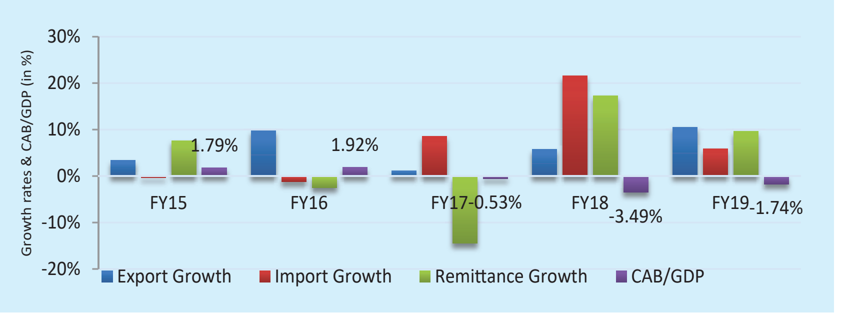
CHART 1.23: REMITTANCE FROM MAJOR COUNTRIES



1.3.3 CURRENT ACCOUNT BALANCE (CAB)

Earlier, Bangladesh was enjoying a surplus in CAB, however, it entered into negative territory of CAB since FY17 (Chart 1.24). Though the situation improved in FY19 as the CAB deficit declined from 3.5 percent of GDP in FY18 to 1.7 percent of GDP in FY19. The slow growth of remittance in FY17 and the slow growth of remittance accompanied by the high growth of imports in FY18 caused the deficits in CAB in respective fiscal years as illustrated in Chart 1.24. However, the CAB has improved notably in FY19 as the export growth increased while import growth declined substantially during this period.

CHART 1.24: EXPORT, IMPORT, REMITTANCE GROWTH AND CAB/GDP



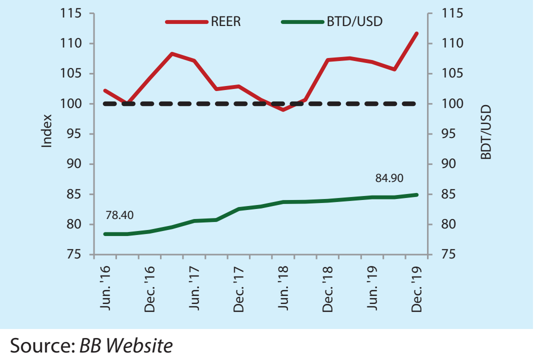
Source: *Monthly Economic Indicators, Bangladesh Bank Quarterly, Bangladesh Bank Website*

Furthermore, current account deficit due to heavy import of intermediate goods and capital goods (especially, of the previous years) might not be troublesome as this will boost up future export capacity or substitute the import, which may ease the CAB in the future.

1.3.4 EXCHANGE RATE MOVEMENT

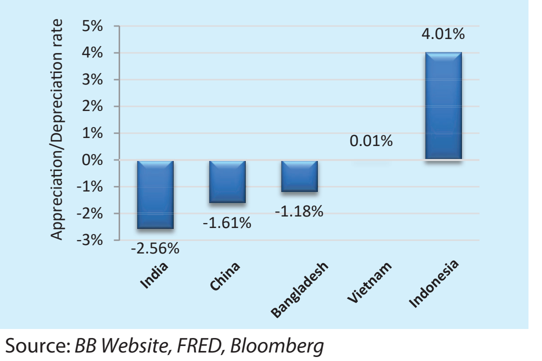
Despite the gradual depreciation of BDT during the last couple of years, the REER index is remaining at an elevated state indicating further scope for depreciation as depicted in Chart 1.25. The rising REER index along with marked depreciation (Chart 1.26) by competing countries such as India (by 2.56 percent) and China (by 1.61 percent) suggests further depreciation of the local currency in an orderly fashion.

CHART 1.25: EFFECTIVE EXCHANGE RATE INDICES (BASE 2015-16=100)



Source: *BB Website*

CHART 1.26: APP(+)/DEP(-) OF DOMESTIC CURRENCY AGAINST USD IN 2019



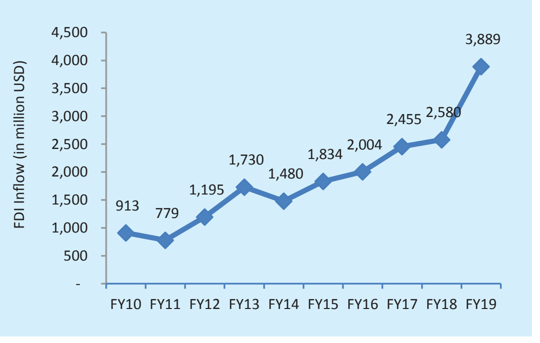
Source: *BB Website, FRED, Bloomberg*

1.3.5 CAPITAL FLOW MOVEMENT

Major components of Capital Flow are foreign portfolio investment, foreign direct investment, foreign grants, and external debt. Since foreign portfolio investment is related to the capital market, development related to this issue has been discussed in Chapter 6.

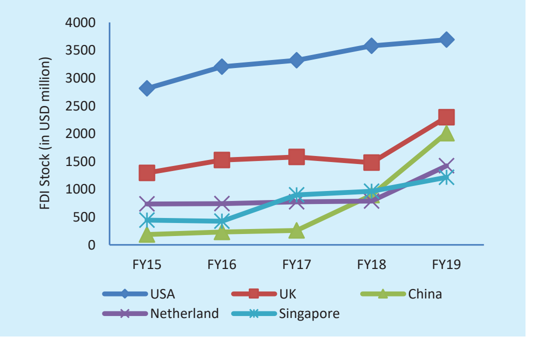
Data reveals that net inflow of Foreign Direct Investment (FDI) in Bangladesh has been demonstrating an increasing trend during the last couple of years. In FY19, net FDI inflow increased by about 50 percent compared to that of the previous year and reached to USD 3.9 billion (Chart 1.27). This increasing trend of net FDI inflow reveals increasing confidence of foreign investors towards Bangladesh. Historically, a major portion of FDI in Bangladesh came from the USA and UK. In recent years, FDI inflows from China, Netherlands, and Singapore have also increased noticeably (Chart 1.28).

CHART 1.27: NET FDI INFLOW (MILLION USD)



Source: *FDI survey report, June-2019, Bangladesh Bank*

CHART 1.28: MAJOR COUNTRY-WISE FDI STOCK



Source: *FDI survey report, June-2019, Bangladesh Bank.*

1.3.6 EXTERNAL SECTOR DEBT

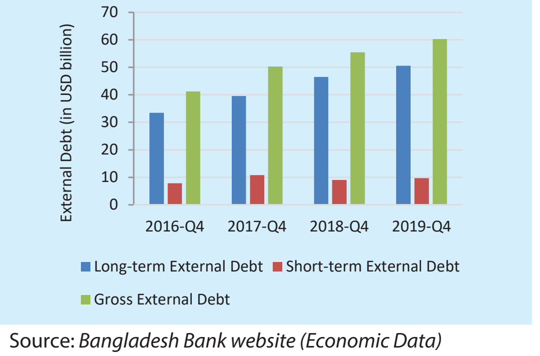
1.3.6.1 MAGNITUDE OF EXTERNAL DEBT

External debt is an important source for financing the growth of emerging economies like Bangladesh. However, high foreign debt levels can carry risks for economic growth prospects, financial stability, and for forwarding sustainable paths of development.

External debt has been in increasing trend as depicted in Chart 1.29. It increased by 8.67 percent from end-December 2018 and stood at USD 60.3 billion. Approximately, 84 percent of the total external debt (i.e., USD 50.6 billion) was long-term in nature as shown in the Chart which is considered to be of low risk. On the other hand, the short-term foreign debt stood at USD 9.7 billion in December 2019.

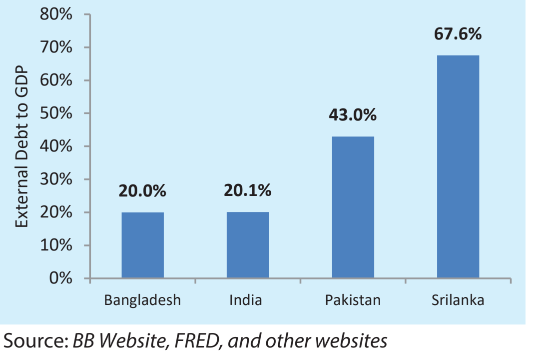
The external debt to GDP ratio of Bangladesh was 20.0 percent in December 2019 which seems to be low both in comparison with major SAARC countries and in terms of the international standard as exhibited in Chart 1.30. The ratio was highest for Sri Lanka with 67.6 percent, followed by Pakistan with 43.0 percent in 2019. Besides, short-term external debt to GDP ratio of Bangladesh in 2019 was still 3.2 percent which is also quite moderate.

CHART 1.29: SHORT AND LONG-TERM EXTERNAL DEBTS



Source: *Bangladesh Bank website (Economic Data)*

CHART 1.30: EXTERNAL DEBT TO GDP IN NEIGHBORING COUNTRIES (2019)



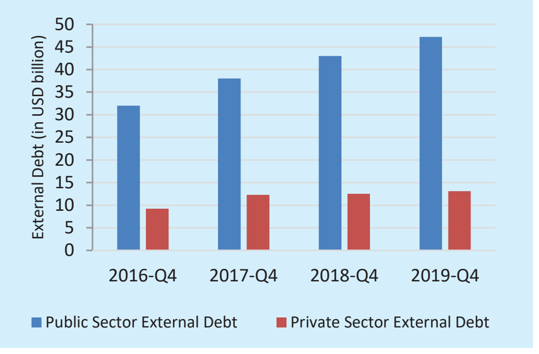
Source: *BB Website, FRED, and other websites*

1.3.6.2 NATURE OF EXTERNAL DEBT

Since a major share of short-term external debt came to the private sector (Chart 1.31), this may require extra caution as the rapid growth of short-term foreign debt is an early warning indicator of potential vulnerability. The Chart 1.31 illustrates that external debt of the private sector, constituted 21.7 percent of total external debt (i.e., USD 13.1 billion), have majority of its obligation in short-term. 62.6 percent of total private sector external debt is of this nature (Table 1.2). On the other hand, 78.3 percent of the total external debt is availed by the public sector which is considered to have low risk.

Debts in public sector are mostly longer term in nature. About 97 percent of public sector debts are long-term.

CHART 1.31: EXTERNAL DEBT OF BANGLADESH



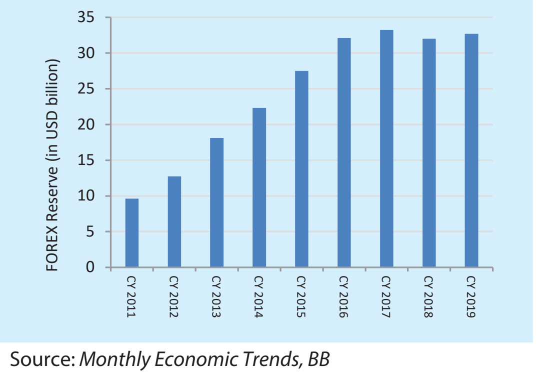
Source: *Bangladesh Bank website (Economic Data)*

TABLE 1.2: SHARE OF PUBLIC AND PRIVATE SECTORS' DEBTS, BY SHORT-TERM AND LONG-TERM

Descriptor	2016-Q4	2017-Q4	2018-Q4	2019-Q4
Public Sector Short-term	5.2%	4.9%	4.1%	3.2%
Public Sector Long-term	94.8%	95.1%	95.9%	96.8%
Private Sector Short-term	66.6%	72.4%	58.2%	62.6%
Private Sector Long-term	33.4%	27.6%	41.8%	37.4%

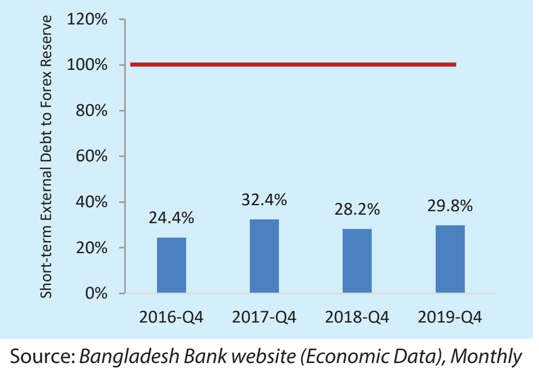
1.3.6.3 DEBT SUSTAINABILITY IN TERMS OF FOREX LIQUIDITY

CHART 1.32: FOREIGN EXCHANGE RESERVE TREND (2011-2019)



Source: *Monthly Economic Trends, BB*

CHART 1.33: SHORT-TERM DEBT AS PERCENT OF FOREX RESERVE



Source: *Bangladesh Bank website (Economic Data), Monthly Economic Trends, BB*

The country has attained a sizeable amount of foreign exchange reserves to maintain external sector stability. It stood at USD 32.7 billion at the end-December 2019 (Chart 1.32). However, the growth of foreign exchange reserves has remained static since 2017. The slow growth of export and increased demand for import settlement mainly contributed to this development. Importantly, the foreign exchange reserve appears to be still satisfactory as currently it has more than seven months of import coverage[8].

If short-term foreign debt gets above the short-term liquidity (as measured by holdings of foreign reserves), it assumes to increase the vulnerability of an economy. In December 2019, short-term external debt to foreign exchange reserve position of Bangladesh stood at 29.8 percent, which was well below the standard threshold level of 100 percent (Chart 1.33).

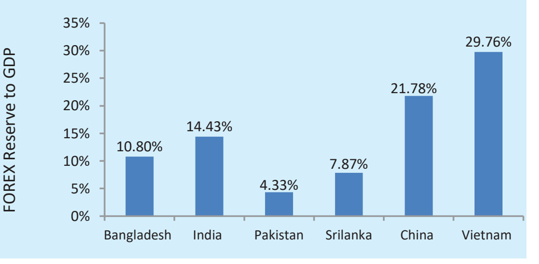
Guidotti-Greenspan rule suggests that the ratio of the foreign exchange reserve to short-term foreign debt should be equal to at least one (01) to be capable of withstanding sudden withdrawal of short-term foreign capital. For Bangladesh, the ratio is well above one (01), which implies that Bangladesh is in a much safer position in terms of short-term external debt[9].

8 As on December, 2019.

9 Excessive foreign financing is regarded as one of the potential sources of fragilities for a country through external channel. High share of short-term external debt may be a concern because it may pose refinance risk. Countries lacking enough reserve to service the debt are subject to refinance risk derived from sudden withdrawal of capital by foreign investors.

Foreign Exchange Reserve to GDP ratio, however, remains 10.8 percent which is the second highest among the SAARC countries but still lower than the peer countries like Vietnam (29.8 percent), and China (21.8 percent) as shown in Chart 1.34. For a long-term sustainability and stability in the external sector, Bangladesh needs to meticulously take its measures to gradual accumulation of foreign exchange reserve in future.

CHART 1.34: FOREX RESERVE TO GDP (2019)



Source: *Bangladesh Bank and Other websites*

1.3.7 EXTERNAL SECTOR'S CHALLENGES AND PROSPECTS

1.3.7.1 FUTURE CHALLENGES (NEAR-TERM, MEDIUM-TERM AND LONG-TERM)[10]

(A) IMPLEMENTATION OF FIRST TRACK MEGA-PROJECTS

Over the last few years, the Government has emphasized on implementation of several mega infrastructure projects (such as Padma bridge, Ruppoor Nuclear Power Plant, Metro rails, Deep Seaports, etc.) to foster the economic growth to the next level. A significant part of the financing for such projects has, however, come in the form of foreign currency-denominated loans from the development partners and multilateral organizations. As a result, there is a gradual accumulation of foreign debts that need to be repaid in installments from the near future. While the number and size of these projects are increasing, there is a probability that such short and long-term debts may pose some sort of pressure on our Balance of Payment if remittance inflow experiences slow growth due to COVID-19.

(B) CONSTANT AUTOMATION AND IMPLICATIONS OF E-COMMERCE

With the emergence of the 4th Industrial Revolution (4IR), groundbreaking technological and scientific innovations may pose a serious challenge in global employment and industrial settings. Oxford Economics (2020)[11] estimates that about 20 million manufacturing jobs may be lost by 2030 due to the use of robots. Bangladesh may be affected as the low-skilled overseas employment might shrink which would threaten the remittance inflow. Sluggishness in adopting automation may also risk the competitiveness as well as the productivities of the export-oriented industries. Readymade garments (RMG) sector of Bangladesh would be one of the major areas where automation may cause considerable job losses. In 2019, a2i (access to information) Program of the Government of Bangladesh predicted that the possible number of job losses by 2041 in the RMG sector would be one million out of which half a million would be sewing operators and sewing machine mechanic. It would be a result of implementing Apparel 4.0 technologies in RMG sector to cope up with the business competition against regional peers like India, China, and Vietnam. The Government of Bangladesh also predicts that around 60 percent (5 million) of jobs will be lost in the next 15 years due to the implementation of industry 4.0 all over the country.

Global sales pattern is now being rapidly transformed with the recent outstanding growth of E-Commerce. Due to this rapid transformation of trade patterns, the export sector of Bangladesh may face substantial competition in the global arena. In this regard, the educational wing of the International Chamber of Commerce (ICC), the ICC Academy emphasizes the implementation of the e-invoice[12] system business, which can improve cost savings, reduce fraud, and improve customer experience.

10 Mid-term refers to two to five years

11 https://www.oxfordeconomics.com/recent-releases/how-robots-change-the-world (Accessed on 29 April 2020)

12 An e-invoice is an electronically issued, received and processed invoice that can be used by trading partners. It is a digital form of an invoice in the financial system by the issuer until it is received and processed by the recipient. E-invoicing system is a technological system, currently being rolled out in countries around the world. Say for example, in India, in the e-invoicing system, the invoices are authenticated electronically by GST Network (GSTN) for further use on the common GST portal. Two procedures are required in e-invoicing system - generation of invoices in standard format and reporting it on to a central portal system.

(C) ENERGY SECTOR'S CHALLENGES

Energy consumption in Bangladesh is amongst the lowest in Asia. With the expansion of the Economy, the consumption of energy is assumed to increase faster. A study by the Japan International Cooperation Agency (JICA) estimates that the average growth of energy demand in Bangladesh will be 6.3 percent per annum until 2041. As the findings presented in Table 1.3 indicate, the demand will be driven by high growth in the transport and industrial sectors.

TABLE 1.3: PROJECTED ENERGY DEMAND BY SECTOR

Sectors	2014		2041		Projected growth rate p.a.
	ktoe	Share	ktoe	Share	
Residential	12815	48%	22797	17%	2.2%
Industrial	7116	27%	54525	40%	7.8%
Commercial & Public	475	2%	2369	2%	6.1%
Transport	3080	12%	51187	37%	11.0%
Agriculture	1409	5%	4197	3%	4.1%
Others	1581	6%	1581	1%	0.0%
Total	**26476**	**100%**	**136656**	**100%**	**6.3%**

Note: ktoe Indicates kilo-tones oil equivalent (unit of energy)

Source: *JICA survey team (2014)*

Since Bangladesh has a limited stock of gas, among the fossil fuels, it mainly needs to rely on huge energy imports to meet the growing demand. Besides, a balance between energy prices and usage of renewable energy is critical. JICA study estimates the fuel-wise energy growth during 2014-2041 which is presented in Table 1.4. It reveals that the high growth in import-based fossil fuels (e.g., 6.2 percent, 12.7 percent, and 10.8 percent per annum for oil, coal, and imported power respectively) and the establishment of foreign-loan based nuclear power plant may pose some pressure on the current account balance as foreign debt (both the short and long-run debts) are expected to increase over the time.

TABLE 1.4: PROJECTED ENERGY DEMAND BY FUEL

Sectors	2014		2041		Projected growth rate p.a.
	ktoe	Share	ktoe	Share	
Natural gas	20726	55%	50149	38%	3.3%
Oil (crude + refined)	6263	17%	32153	25%	6.2%
Coal	1361	4.0%	26273	20%	12.7%
Nuclear power	-	-	11942	9%	-
Hydro, solar, wind	36	0%	197	0%	6.5%
Biofuel & waste	8449	23%	4086	3%	-2.7%
Power (import)	377	1%	6027	5%	10.8%
Total	**37212**	**100%**	**130827**	**100%**	**4.8%**

Source: *JICA survey team (2014)*

1.3.7.2 LONG-TERM PROSPECTS

(A) GRADUATION TO MIDDLE INCOME COUNTRY

Bangladesh has been awarded by the UN with the eligible status for graduation from LDC in March 2018. This graduation will open up a lot of opportunities for Bangladesh. For instance, it would attract more foreign investments in the country. A better country credit rating may help to borrow commercial loans from the international market at a competitive interest rate. It may also enable the country to mobilize resources from the global market through the issuance of sovereign bonds. The private sector may also get the opportunity to borrow from the global financial market at a lower cost. Conversely, the graduation would lead to higher cost of development finance (i.e., in the form of foreign aids) and higher debt-servicing liabilities owing to the termination of LDC status.

(B) SUSTAINABLE DEVELOPMENT GOALS-CREATING EMPLOYMENT

SDGs endorse sustained economic growth, technological innovation, and higher levels of productivity by promoting entrepreneurship and job creation. Thus, the goal is to achieve full employment for all by 2030. The Government of Bangladesh is playing an important role to achieve this goal through various authorities like the Bangladesh Economic Zones Authority (BEZA) and Bangladesh Hi-tech Park Authority.

BEZA has a target to establish 100 Economic Zones to create 10 million jobs by 2030. Eighty-eight (88) economic zones are already approved out of which 59 zones are government-owned. Consistent GDP growth rate and increasing growth of the skilled labor force helped Bangladesh to become a rapidly industrialized economy. 151 local and foreign business entities proposed BEZA around 20.50 billion US Dollars of investment. Out of those, around USD 2.80 billion is being invested in the different special economic zones and an inflow of USD 4.81 billion would likely to take place as FDI from different developed countries. These investments will create a lot of employment opportunities for the growing number of the labor force.

On the other hand, High Tech Park Authority is also contributing to job creation by establishing Hi-Tech Park, Software Technology Park, and IT Training and Incubation Centre through six running projects and three operational projects.

1.3.7.3 POLICY SUGGESTIONS AND IMPLICATIONS

(i) The current policy stance of allowing gradual depreciation of taka against the US dollar seems to be conducive, but additional flexibility in the exchange rate may be meticulously considered to ease the current account pressure.

(ii) Our export policies are currently aimed at preferential treatment towards the RMG sector. To diversify our export basket, other prospective sectors such as leather and leather products-especially footwear, ceramics, light engineering, ICT services, outsourcing, medicine, and agro-based products could also be given preferential treatment. Proper patronization towards these sectors can yield a diversified export basket for Bangladesh economy in the long run.

(iii) Around 55 percent of our remittances come from the countries, which are major oil suppliers in the world market. Therefore, oil price shocks are more likely to cause volatility in our remittance earning. This suggests that the overseas labor market in the non-oil economy should be sought out to ensure hedge against the global fuel price shocks.

(iv) Moreover, appropriate measures need to be taken for enhancing the skills of human resources through disseminating technical education. Job opportunities need to be created for tackling the probable job losses against automation of Industry 4.0 approach in the upcoming year. However, some low-skilled jobs like operators and repair technicians may be created requiring some special skills to manage the automation process. It is necessary to train the local workforce to make them equipped with those skills.

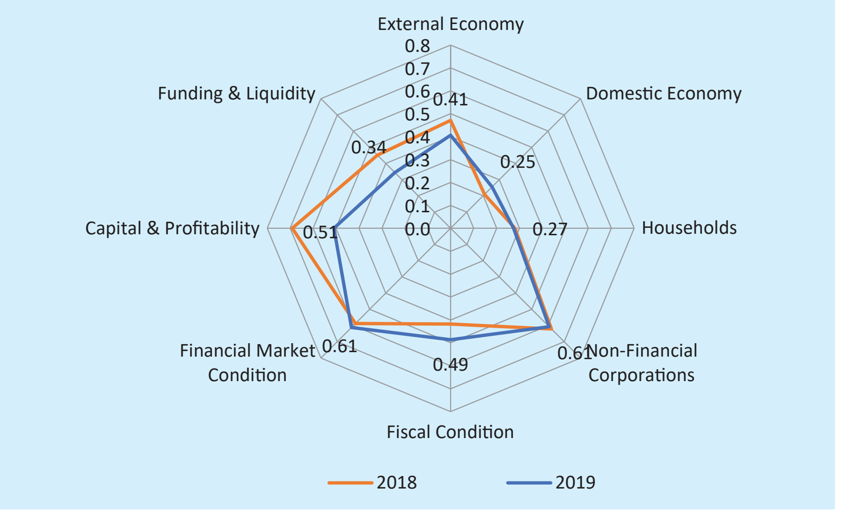
(v) An up-to-date cyber security law would be required to reap the benefits of automation and for facing E-Commerce related challenges.

(vi) This would ultimately help Bangladesh attracting more investments from all over the globe and reap the benefits of the economic zones and hi-tech parks initiatives.

1.4 MAPPING FINANCIAL STABILITY

As financial stability could be affected through various channels, mapping the state of financial stability components has the utmost importance, particularly, in the Bangladesh context. This is also crucial because each financial crisis has affected financial system stability in its unique way and a comprehensive framework is therefore needed to cover all the possible stability threats. In the stated context, this box presents current stability map aiming to analyze possible stability threats for Bangladesh macro-financial system taking into account 08 (eight) broad components[13]: external economy, domestic economy, households, non-financial corporations, fiscal condition, financial market condition, capital and profitability, and funding and liquidity (Chart 1.35).

CHART 1.35: FINANCIAL STABILITY MAP (2018 AND 2019)



Source: *Various publications of BB, IMF, and the WB. Compilation: FSD, BB*

Chart 1.35 illustrates the comparative financial stability condition of Bangladesh's macro-financial system in 2018 and 2019 through a stability map. The map has been developed by following the global best practices taking into account the unique nature of Bangladesh's financial system[14]. The stability map depicts moderate level risk in most of the components as standardized scores remained well below the score of 1 (one). Compared to 2018, the stability situation improved in the external economy, funding and liquidity, and capital and profitability components while slight deterioration occurred in fiscal and financial market conditions. Reduction of current account deficit and gradual decline in crude oil price are the primary causes of the improvement in the external economy. Similarly, capital and profitability improved due to the growing capital base and stable profit of the banking sector. The surge in deposit growth and reallocation of institutional deposits also eased liquidity scenario, which improved the funding and liquidity indicators. In contrast, subdued tax revenue collection along with the widening of sovereign risk premium caused by increased government borrowing through treasury instruments at higher rates were the prime causes for the worsening in the fiscal condition component. Rising gross NPL ratio in banks during the earlier quarters in CY19, deterioration of asset quality in FIs along with the liquidation process of one FI and shrinking capital

13 i) External economy component consists of 7 sub-indicators: real GDP growth of major trading partners, average inflation of top 5 countries from which Bangladesh imports, average unemployment rate in countries from which Bangladesh receives highest inward remittances, international crude-oil price, 3-months LIBOR rate, current account deficit to GDP ratio, and reserve adequacy in months;(ii) Domestic economy component uses 4 sub-indicators, namely output gap, external debt to GDP, currency fluctuations, and consumer price index;(iii) Household component consists of 3 sub-indicators, namely, household borrowing to GDP, credit portfolio quality in household sector, and inward remittance to GDP ratio.; (iv) Non-financial corporation component covers 4 sub-indicators: NFC credit to GDP, NFC loans as proportion of banking sector loans, indebtedness of large NFCs, and credit portfolio quality of large NFCs; (v) Fiscal condition component uses 4 sub-indicators: Public debt to GDP, government budget deficit to GDP, sovereign risk premium, and tax revenue to GDP; (vi) Financial market consists of banking sector, financial institutions, and capital market. Eight (08) different sub-indicators have been used to assess this component: asset concentration of D-SIBs, Gross NPL ratio in banks, RWA density ratio, banking sector resilience map score, deposit covered by DITF, asset quality of FIs, PE ratio in DSE, and DSEX value;(vii) Capital and profitability component uses 4 indicators: CRAR, Tier I capital to RWA, NIM and ROA; and(viii) Funding and liquidity component uses 3 sub-indicators; ADR, LCR, and NSFR.

14 It contains 8 components and 37 indicators. Standardized scores for the indicators have been calculated using a formula: [Standardized Score = (xi - min.)/(max-min)] where maximum and minimum values are incorporated using time series data and in some cases, by assigning appropriate threshold values. Threshold values are selected using judgment, economic logic and experience of other countries. The component scores are calculated using weighted average of the indicators and component scores are plotted in the map (in a scale of 0 to 1). The components closer to the origin have values close to zero and indicate lower risk while components further from the origin indicate higher risk and have value closer to one.

market worsened the financial market condition. Though the non-financial corporation component did not deteriorate from CY18, the high indebtedness of a few large NFCs remained a concern which resulted in a higher anticipated stability risk from this component. Finally, it should be noted that the financial stability scenario is likely to be changed in CY20 as most of the stability components are exposed to COVID-19 shocks.

The detailed component-wise analysis is explained below while the scores are summarized in **Appendix XLIX**.

External economy component: Higher growth of remittance inflow due to cash incentive declared by the government, the decline in oil price, and overall slow growth of import helped to improve the external sector balance in 2019. However, a constant fall in oil price could be a possible source of stability threat for Bangladesh as it might shrink remittance inflow from the oil-exporting countries. Trading partners' real GDP growth, inflation in import partners, and unemployment in top inward remittance partners worsened in CY19 compared to CY18. Moreover, the decline in import coverage (in months) of foreign exchange reserves also added stress for the financial system. The external economy scenario is likely to be worse in CY20 due to the COVID-19 pandemic, which might slowdown export earnings and remittance inflow as most of the trading and remittance partner countries have severely been affected by the virus outbreak.

Domestic economy component: A low level of external debt and low and stable inflation in CY19 were favorable from a financial stability point of view. Despite the depreciation of BDT to some extent and a moderate output gap, the overall domestic component appeared to be quite stable with no apparent threat for the financial system. However, this stable scenario might be altered, especially if the real economy is severely affected by the COVID-19 virus attack resulting in lower output growth and rising inflation.

Household Component: Low household debt to GDP, better credit portfolio quality in the household sector, and improvement in remittance to GDP ratio indicate that this sector is less risky for the financial system of Bangladesh. However, the expected slowdown in inward remittance flow, caused by COVID-19 induced higher unemployment in the remittance-source countries, may negatively affect the debt-servicing capacity of the household sector in the near future.

Non-financial corporation component: High proportion of bank loans held by top NFCs[15] and a high debt-equity ratio of large NFCs were found to be the two key risk factors for Bangladesh's financial system.

Fiscal condition component: Low level of public debt and budget deficit indicates that the fiscal sector is less risky for financial stability. However, low tax revenue collection relative to GDP had induced higher government borrowing from the banking sector resulting in higher yield on treasury instruments. This low revenue collection also limits the Government's ability to pursue an expansionary fiscal policy to boost up the economy amidst the COVID-19 pandemic.

Financial market component: Rising gross NPL ratio in banks during the earlier quarters in CY19, deterioration of asset quality in FIs, and decline in market indices in the capital market impaired the financial market condition. The decrease in asset concentration of D-SIBs, reduction in risk-weighted asset density ratio and improvement in asset quality of banks during the last quarter of CY19 are some positive developments. The recent policy that increased protection for the depositors should also improve the financial market condition. However, ensuring the future debt-servicing capacity of the rescheduled loans under the special scheme and preserving investors' confidence in the capital market appear to be the two critical challenges for the financial system as these issues are expected to be considerably affected in the aftermath of COVID-19 outbreak. The Government and BB already formulated some policy supports for the affected borrowers, which might help in overcoming some of those difficulties.

15 In this study, Non-financial Corporation (NFC) mainly refers to large systemic borrowers who are engaged in non-financial business. FSD used discretion in determining the NFCs and the definition may differ from the official group definition used by BB.

Capital and profitability component: Growing capital base and stable profit of the banking sector ensured marked improvement in this sector. However, the capital base needs to be increased even more since the industry capital base is yet to fully meet the capital conservation buffer requirement.

Funding and liquidity component: Improvement of liquidity situation is identified in each of the three liquidity indicators. The surge in deposit growth and reallocation of institutional deposits had helped in easing the liquidity scenario.

In sum, the stability map shows a moderate level of risk for the Bangladesh macro-financial system in CY19. However, minimizing negative shocks from the external economy, supplying credit to the affected firms, ensuring asset quality of the financial system, reviving the real economy, and preserving the confidence level of market participants are some of the critical stability issues for Bangladesh economy.

Chapter 2

BANKING SECTOR'S PERFORMANCE

The banking system in Bangladesh appeared to be mostly resilient in 2019. A modest asset growth, primarily supported by considerable growth in deposit, was observed during the review year. The deposit growth, aided by accelerated remittance inflow and various other policy initiatives, outpaced loan growth, which eased the liquidity scenario and provided the required stability to the banking sector's deposit base. The asset quality of the banking sector improved during the latter part of CY19 primarily due to the restructuring of loans under a new policy aimed at reducing debt servicing burden of good borrowers. Despite the recent improvement, the proper monitoring of rescheduled loans amid the COVID-19 pandemic remains a critical challenge for the banking industry. The banking sector also demonstrated a moderate increase in net profit after taxes during the review year. Both capital to risk-weighted assets ratio (CRAR) and Tier-1 capital ratio of the banking industry increased in CY19. However, though the CRAR was still inadequate to totally cover the Capital Conservation Buffer (CCB) requirement, it remained well above the regulatory minimum requirement. The banking industry also maintained Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) well above the regulatory benchmarks. In CY20, most of the banking sector indicators might be affected due to the impact of COVID-19 pandemic. However, the bulk amount of government's stimulus credit package augmented by Central bank's refinancing schemes should help the banking sector in combating the COVID-19 pandemic.

2.1 FINANCIAL SYSTEM OF BANGLADESH

Based on the degree of regulation, the financial system of Bangladesh has been broadly categorized into three sectors, namely, formal sector, semi-formal sector, and informal sector. The formal sector includes all 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 semi-formal sector includes some specialized financial institutions which do not fall under the jurisdiction of various financial sector regulators, they are regulated by their own acts under different ministries of the Government, e.g. Bangladesh House Building Finance Corporation (BHBFC), Bangladesh Samabaya Bank Limited (BSBL), Investment Corporation of Bangladesh (ICB), Palli Karma Sahayak Foundation (PKSF), Grameen Bank, Non-governmental Organizations (NGOs), different Co-operatives & credit unions and discrete government programs. The informal sector is comprised of private intermediaries that are completely unregulated.

Bangladesh Bank (BB), being the apex authority of money market and foreign exchange market of the country, regulates and monitors the activities of all scheduled banks and financial institutions (FIs). Besides, it also governs the payment and settlement system of the country. Currently, there are 6 state-owned commercial banks (SCBs), 3 specialized development banks (SDBs), 41 domestic private commercial banks (PCBs including Islamic banks)[16], 9 foreign commercial banks (FCBs), 4 non-scheduled banks, and 34 financial institutions (FIs) operating in Bangladesh. Bangladesh Securities and Exchange Commission (BSEC) regulates and supervises the capital market, comprising of two stock exchanges - Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE). The major capital market intermediaries are merchant banks, stockbrokers, dealers, security custodians, credit rating agencies, and asset management companies. At present, 62 merchant banks, 8 credit rating companies, 493 depository participants (stock dealers, brokers, security custodians) and 46 asset management companies are operating in the capital market of Bangladesh. Insurance companies and micro-finance institutions are supervised by the Insurance Development and Regulatory Authority (IDRA) and the Microcredit Regulatory Authority (MRA) respectively. At present, 78 insurance companies and 876 registered micro-finance institutions are functioning in Bangladesh. Cooperatives and credit unions are regulated by the Registrar of Cooperatives. Besides, the

16 Very recently, 3 new banks have been awarded license to operate banking business in Bangladesh.

Ministry of Finance regulates the Bangladesh House Building Finance Corporation (BHBFC) and the Investment Corporation of Bangladesh (ICB). Table 2.1 demonstrates the financial system structure of Bangladesh.

TABLE 2.1: FINANCIAL SYSTEM STRUCTURE OF BANGLADESH

		Financial Market	Institutions	Numbers	Regulator
Financial System	Formal Sector	Money Market Foreign Exchange Market Payment and Settlement Systems	Banks	SCBs (6) PCBs (41) FCBs (9) SDBs (3)	Bangladesh Bank
			FIs	Govt. Owned (2) Others (32)	
			Others	Money changers, MFS providers, PSOs, PSPs, OPGSPs etc.	
		Capital Market	DSE CSE CDBL	Merchant Banks (62) Credit Rating Companies (8) AMCs (46) DPs (493)	BSEC
		Insurance Market	Life Non-Life	Govt. Owned (2) Others (76)	IDRA
		Micro Credit Market	MFIs	MFIs (876)	MRA
	Semi-formal Sector	BHBFC, PKSF, ICB, Samabay Bank & Grameen Bank, Co-operatives and credit unions, Government Pension Scheme, Central Provident Fund, Private sector pension/gratuity funds and discrete government programs etc.			
	Informal Sector				

2.2 ASSET STRUCTURE OF THE BANKING SECTOR

After a declining trend till CY18, banking sector experienced a modest growth (11.8 percent) of asset in CY19, primarily supported by acceleration in deposit growth rate.

The banking sector assets reached BDT 16,288.7 billion in CY19, registering a moderate growth of 11.8 percent from that of CY18 (Chart 2.1). Indeed, the asset growth showed uptrend in CY19, after recording a steady deceleration in recent years. The primary reason for this growth can be attributed to elevated deposit growth.

CHART 2.1: TOTAL ASSET GROWTH : Y-O-Y BASIS

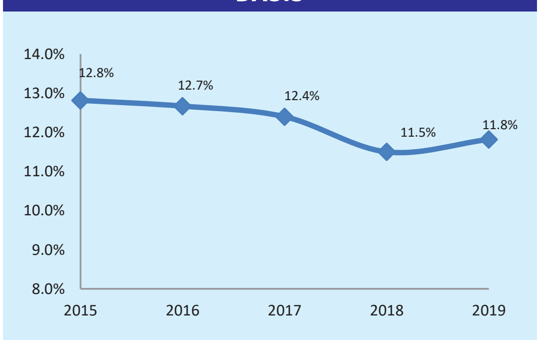
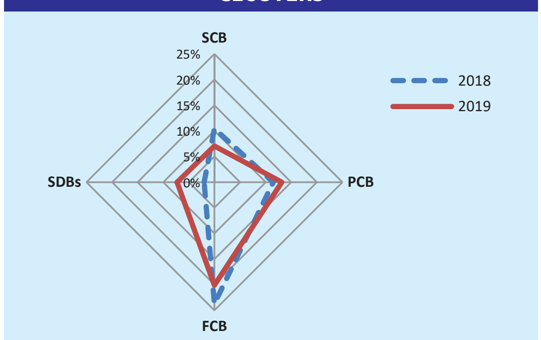


CHART 2.2: ASSET GROWTH OF BANKING CLUSTERS



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

Among the different banking clusters, PCBs and SDBs had higher asset growth compared to CY18 while the rate of growth slowed down in SCBs and FCBs (Chart 2.2). Since PCBs accounted for major portion of the banking sector assets (67.8 percent in CY19), the higher growth in PCBs (13.2 percent in CY19 compared to 11.5 percent in CY18) boosted the growth of industry asset at a faster rate than that of CY18.

Considering the asset structure in CY19, loans and advances constituted the highest share of banking sector assets followed by investment. Loans and advances accounted for 66.5 percent (same in CY18) of total assets while investment constituted 15.4 percent (13.4 percent in CY18) as depicted in Chart 2.3. Chart 2.4 shows that growth of loans and advances moderated in CY19. Following high double-digit growths in recent years, loans and advances grew by a moderate 11.9 percent in CY19 (14.1 percent in CY18). Demand-side constraints from the higher rate on lending, lower import-based loan demand due to lower private sector investment, prevailing higher ADR in many PCBs and the need to adjust the imbalance between deposit and loan growth in recent years, among others, might have slowed down the loan growth in CY19. Nevertheless, steps have been taken to rationalize the lending rate which might boost up loan growth in near future. Though loans and advances remained the dominant asset type, the banking industry increased its exposure to investment in Government and other securities, which registered an extensive growth of 28.1 percent in CY19 (2.0 percent in CY18). Particularly, investment in Government securities increased by around 44.3 percent compared to the previous year. The Government's higher reliance on bank-based budget financing, safety and security offered by the instruments along with rising yield in the Government securities might have induced banks to invest heavily in these instruments. However, if these investments continue to soar in the future, there might be a possibility of crowding out of credit for the private sector. Banks should aim to increase their deposit base so that such a situation does not materialize.

CHART 2.3: YEAR-WISE BANKING SECTOR ASSET STRUCTURE

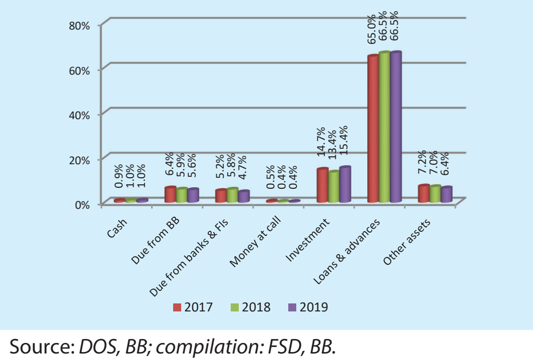
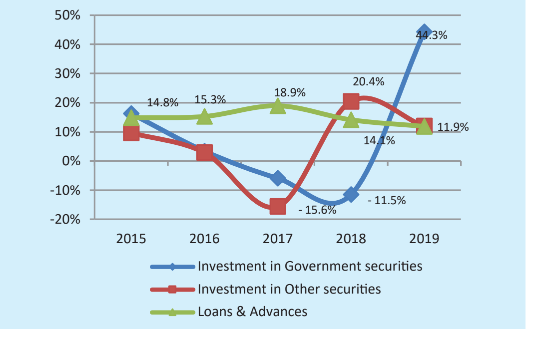


CHART 2.4: YEAR-WISE GROWTH OF LOANS AND ADVANCES AND INVESTMENT IN SECURITIES



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

Among different categories of banks, SDBs and PCBs had higher shares of loans and advances (80.3 and 72.4 percent respectively) while the SCBs possessed the lowest proportion (51.1 percent) 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.

PCBs held a major proportion of earning assets, which might strengthen the stability of the banking sector through respective asset quality improvement. The overall liquidity situation of the PCBs also improved as their liquid asset holding increased.

In CY19, the share of major earning assets[17] of all categories of banks except FCBs showed marginal decline (Chart 2.5) from their CY18 position. PCBs' market share declined by 70 basis points, while the same of FCBs increased by 90 basis points. However, PCBs still held the highest market share of the earning asset (around 70 percent), which reflects a positive sign for financial system stability as the PCBs managed better quality asset and higher capital to risk-weighted assets ratio compared to those of the SCBs.

17 Earning assets include loans and advances and investment. Liquid assets include cash, dues from BB, dues from banks and FIs and money at call and short notice.

Chart 2.6 demonstrates the market shares of liquid assets of different categories of banks. As the chart shows PCBs' share increased substantially whereas the share was declined moderately for the SCBs and FCBs. In particular, PCBs' share increased by 7.9 percentage points, while the share of the SCBs reduced by 6.0 percentage points. Allowing higher proportion of institutional government funds to be deposited in PCBs might have caused the change as these deposits were shifted mostly from the SCBs to the PCBs. This recent stance improved the overall liquidity situation in the PCBs. The higher liquid asset holding should enable the PCBs to better manage their future liquidity issues amid the COVID-19 pandemic situation. Moreover, reallocation of excess liquidity from SCBs is another positive sign as it might improve the ADR situation in PCBs and increase credit flow to the private sector from the PCBs.

CHART 2.5: SHARE OF EARNING ASSETS OF DIFFERENT CATEGORIES OF BANKS

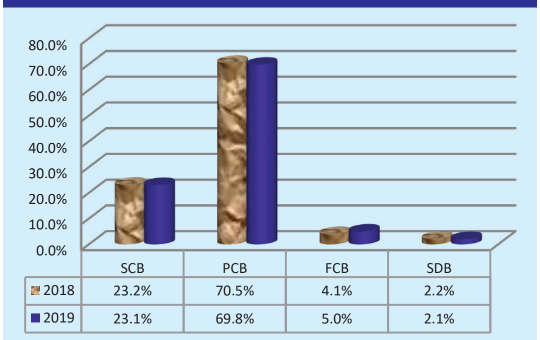
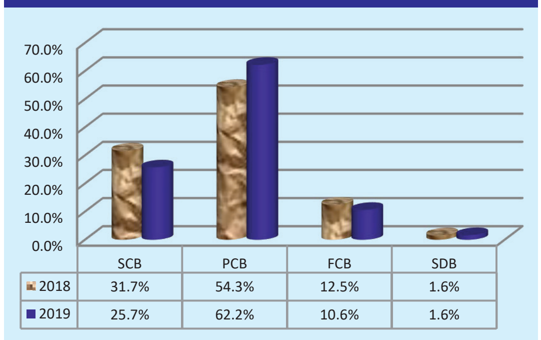


CHART 2.6: SHARE OF LIQUID ASSETS OF DIFFERENT CATEGORIES OF BANKS

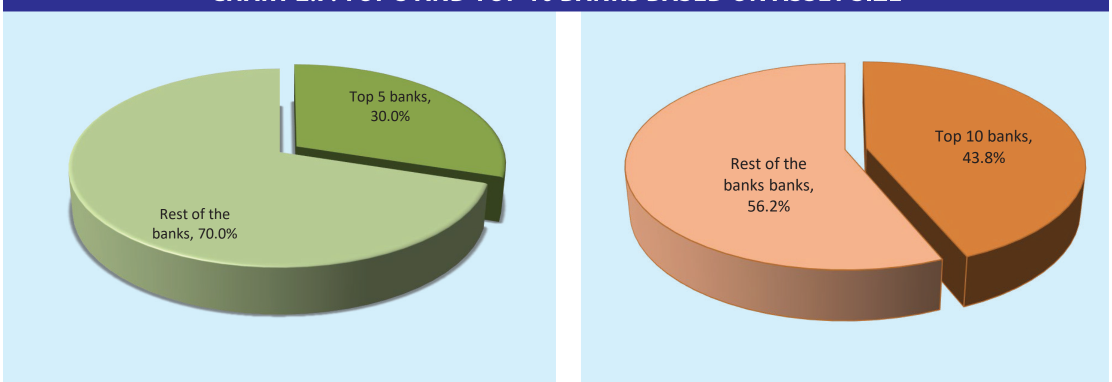


Source: *DOS, BB; compilation: FSD, BB.*

Compared to CY18, the concentration of assets within a few banks decreased marginally in CY19, although sector-wise loan concentration had increased.

Chart 2.7 shows concentrations of assets within the top five (5) and top 10 banks, which were 30.0 percent and 43.8 percent respectively as of end-December 2019, compared to the corresponding figures of 30.7 percent and 44.3 percent at end-December 2018. In CY19, top 10 banks composed of six (6) PCBs and four (4) SCBs. Pertinently, PCBs and SCBs possessed 67.8 percent and 24.5 percent of total assets of the banking industry while the shares of FCBs and SDBs were 5.5 and 2.2 percent respectively.

CHART 2.7: TOP 5 AND TOP 10 BANKS BASED ON ASSET SIZE



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

In case of sector-wise loan concentration, the calculated Herfindahl-Hirschman Index (HHI) of 1429.1 points in CY19 indicates an increase in concentration risk from CY18 when the value of index was 1393.3. Similar to CY18, four sectors had double digit market share in CY19; however, an increase in market share of large industries' loans contributed significantly to the increase of the HHI score

(Table 2.2). High market share (27.3 percent) of large industries' loans also indicated that banks were more engaged in disbursing corporate loans. Along with large industries, wholesale and retail trade (17.6 percent), miscellaneous (10.3 percent) and import financing (10.0 percent) also possessed substantial market share.

TABLE 2.2: SECTOR-WISE LOAN CONCENTRATION (CY19)				
Sl No.	**Sector**	**Amount (In Billion BDT)**	**Percent of Total**	**HHI***
1	Large Industries	2742.48	27.33	746.81
2	Wholesale and Retail Trade (CC, OD etc.)	1765.93	17.60	309.65
3	Miscellaneous	1040.76	10.37	107.55
4	Import Financing (LIM, LTR, TR etc.)	1006.5	10.03	100.59
5	Small and Medium Industries	763.26	7.61	57.85
6	Service Industries	666.5	6.64	44.11
7	Export Financing (PC, ECC etc.)	488.24	4.87	23.67
8	Agriculture	427.25	4.26	18.13
9	Housing (Residential) in Urban Area for Individual Person	281.09	2.80	7.85
10	Other Construction	235.25	2.34	5.50
11	Housing (Commercial): -For Developer/Contractor	230.7	2.30	5.28
12	Infrastructure Development (Road, Culvert, Bridge, Tower etc.)	94.11	0.94	0.88
13	Air Transport	64.75	0.65	0.42
14	Lease Financing/Leasing	45.16	0.45	0.20
15	Road Transport (Excluding Personal Vehicle & Lease Finance)	40.66	0.41	0.16
16	Fishing	36.7	0.37	0.13
17	House Renovation/Repairing/Extension	35.68	0.36	0.13
18	Water Transport (Excluding Fishing Boats)	34.64	0.35	0.12
19	Housing (Residential) in Rural Area for Individual Person	22.69	0.23	0.05
20	Cottage Industries/Micro Industries	9.41	0.09	0.01
21	Procurement by Government	3.42	0.03	0.00
22	Forestry and Logging	0.21	0.00	0.00
23	Water-works	0.05	0.00	0.00
24	Sanitary Services	0.03	0.00	0.00
	Total loans and advances	**10035.47**	**100.00**	**1,429.08**

* HHI = Herfindahl–Hirschman Index

Note: Total loans and advances exclude bills payable and OBU figures.

Source: *Statistics Department, BB; computation: FSD, BB.*

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

Asset quality improved during the latter part of CY19 as gross nonperforming loan ratio showed a conspicuous drop driven by improvement in NPL position of SCBs and SDBs. However, maintaining asset quality amid the COVID-19 pandemic appears to be a key future challenge.

The gross nonperforming loan (NPL) ratio[18] in the banking sector showed an upward trend during the earlier quarters of CY19 followed by a considerable improvement in December quarter (Chart

18 Total classified loans as a percentage of total loans outstanding.

2.8). The ratio reached 9.3 percent in CY19 from 10.3 percent in CY18. The amount of gross NPL increased by BDT 4.2 billion to reach BDT 943.3 billion in CY19. High cost of debt servicing, and moral hazard problem of some borrowers anticipating potential benefits from the expected special loan restructuring policy could have been some of the key reasons behind the elevated NPLs till September 2019. However, the significant decline in NPL ratio in December quarter could partially be attributed to stringent supervision by BB, improved monitoring from banks, and restructuring of loans under a new policy aimed at reducing debt servicing burden of good borrowers. Despite the recent improvement, the proper monitoring of rescheduled loans amid the COVID-19 pandemic will be a critical challenge for the banking industry. The expected sluggish business condition due to the Corona virus outbreak could severely affect the debt–servicing capacity of the borrowers and future non-performance of the rescheduled as well as regular loans could increase the industry NPL. BB has already extended necessary policy supports to help the borrowers/banks and minimize the impact of the ongoing virus outbreak.

CHART 2.8: GROSS NPL OF BANKING INDUSTRY

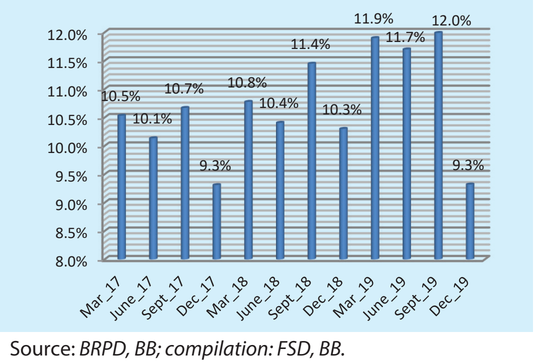
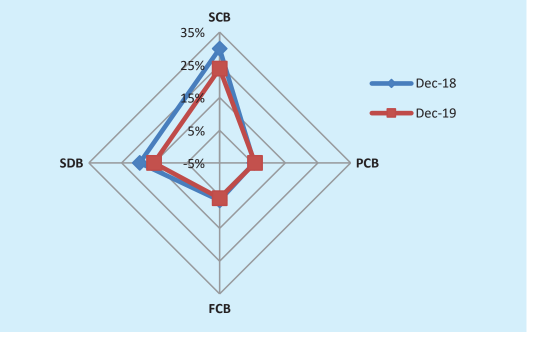


CHART 2.9: GROSS NPL OF BANKING CLUSTERS (DEC, 2018-2019)

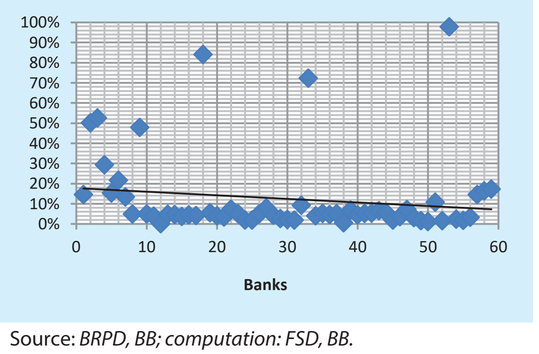


Source: *BRPD, BB; compilation: FSD, BB.*

Considering gross NPL ratios of different categories of banks, it appears that the main driving force for decline in industry's overall NPL ratio was improvement of asset quality in SCBs and SDBs (Chart 2.9). The NPL ratio of SCBs decreased by 6.1 percentage points and reached 23.9 percent at end-December 2019. SDBs also achieved some improvement as their NPL ratio dropped by 4.0 percentage points to reach 15.1 percent. Despite these improvements, the NPL ratios still remained high for both categories of banks, which affected the overall asset quality of the industry. The NPL ratio of the PCBs increased by 28 basis points and reached 5.8 percent while the same for FCBs stood at 5.7 percent at end-December 2019.

Chart 2.10 shows the gross NPL ratio of individual banks. The majority of the banks had single digit gross NPL ratio in CY19, which is a good sign for financial stability. The high industry NPL, attributed to higher NPL ratios in few banks, does not appear to be a system-wide phenomenon. Dismal performance of a few banks had dragged down the overall asset quality of the banking system.

CHART 2.10: GROSS NPL RATIO OF INDIVIDUAL BANK (END-DECEMBER 2019)

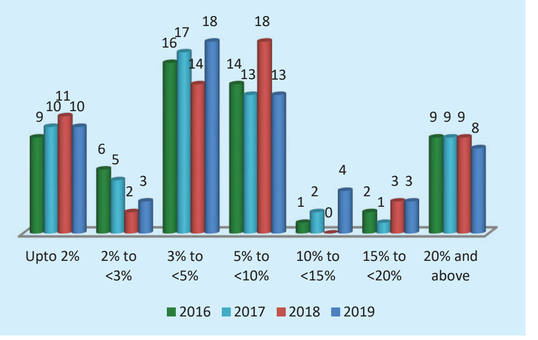


Source: *BRPD, BB; computation: FSD, BB.*

Chart 2.11 presents the distribution of banks according to the severity of NPL ratios. During 2016-2019, total number of banks has increased to 59 from 57. The distribution shows that the number of banks with gross NPL ratios of 10 percent or above increased to 15 in CY19 from 12 in CY18. Though the number of worst categories of banks (i.e., having NPL ratio over 20 percent) dropped by one, the number of banks in the 10 to 15 percent category increased by four indicating a relative deterioration in their asset quality. A total of 8 banks (4 SCBs, 3 PCBs and 1 FCB) had gross NPL ratio of 20 percent and above during CY19.

The asset quality of banks having gross NPL ratio of 20 percent or more in CY19 remained mostly unchanged compared to CY18. However, 31 banks maintained their NPL ratio below 5 percent. All FCBs except one and all the PCBs except 4(four) recorded a single-digit gross NPL ratio as of December 2019. Moreover, low NPL ratios were observed in all banks except one, which commenced operation during 2013-19. For the last couple of years, the banks having high NPL ratio failed to bring down the ratio, which might pose future concern for the financial system stability. The aftermath of COVID-19 pandemic might even worsen the situation in the near future. Bangladesh Bank along with other regulatory authorities has been working rigorously on this particular issue.

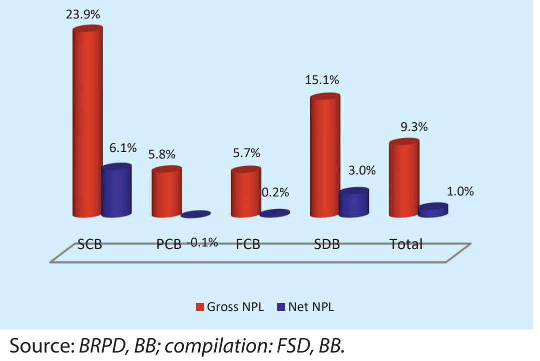
CHART 2.11: GROSS NPL RATIO OF BANKS INTO DIFFERENT BUCKETS



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

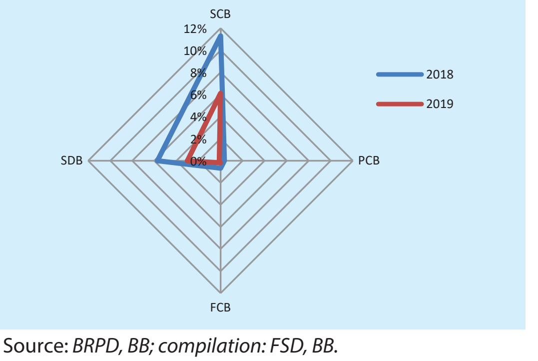
The net nonperforming loan (net NPL) ratio[19] declined to 1 percent at end-December 2019 compared to 2.2 percent in the previous year mainly due to decline in gross NPLs in SCBs and SDBs.

CHART 2.12: GROSS AND NET NPL RATIO IN CY19



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

CHART 2.13: NET NPL RATIO OF BANKING CLUSTERS (DEC 18 & 19)



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

Chart 2.12 illustrates that the industry net NPL ratio stood at 1.0 percent at end-December 2019 (2.2 percent at end-December 2018) after netting of specific provision and interest suspense from gross NPL ratio of 9.3 percent. The significant decline in net NPL ratio indicates that banking system resilience improved in CY19 compared to the preceding year.

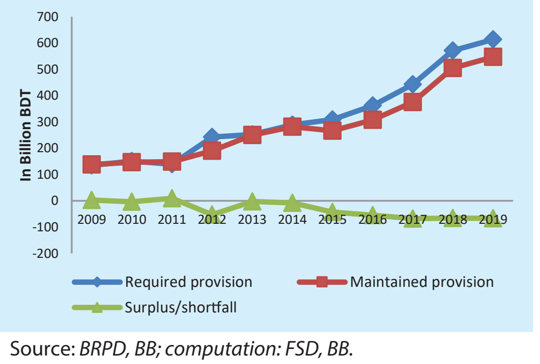
Chart 2.13 shows the changes in net NPL ratio of different categories of banks. Though PCBs held the largest share of the industry assets, their net NPL ratio remained considerably low in CY19. FCBs also had very low and mostly unchanged net NPL ratios. These banks seem to be fairly resilient against any major stability threat emanated from asset quality deterioration. On the other hand, high net NPL ratios in SCBs and SDBs indicate a weaker resilience of these banks. However, SCBs showed a significant improvement at end-December 2019 as their net NPL ratio declined substantially due to a considerable fall in the gross NPL ratio. Similarly, SDBs also experienced marked improvement. Nonetheless, provision shortfall in SCBs still remained a major concern as these banks had provision shortfall of BDT 78.1 billion at end-December 2019. This shortfall, however, did not result in a significant deterioration in the industry's net NPL ratio due to the higher provision maintenance of other categories of banks. Some of the SCBs enjoyed phased-in provisioning arrangement. However, to improve their financial health, these banks need to bring down their gross NPLs to a manageable level by adopting good governance and better risk management practices.

19 Net NPL ratio = (Gross NPLs - Loan-loss Provisions – Interest Suspense)/(Total Loans Outstanding - Loan-loss Provisions – Interest Suspense)

In CY19, all banks except four (04) SCBs, and eight (08) PCBs maintained sufficient loan-loss provisions as per the regulatory requirement of BB.

As mentioned earlier, the gross NPLs increased by BDT 4.2 billion between CY18 and CY19. These new NPLs along with the previous cumulative NPLs required banks to maintain cumulative provisions of BDT 613.1 billion as of end-December 2019 against which banks, in fact, maintained provisions amounting to BDT 546.6 billion (Chart 2.14). The overall provision shortfall in the banking industry stood at BDT 66.5 billion. The maintained provision in CY19, however, was around BDT 42.3 billion higher than that of CY18. Consequently, the provision maintenance ratio increased from 88.4 percent in 2018 to 89.1 percent in 2019. Similarly, maintained provision to gross NPL ratio increased from 53.7 percent to 57.9 percent during the period under review.

CHART 2.14: YEAR-WISE BANKING SECTOR LOAN LOSS PROVISIONS

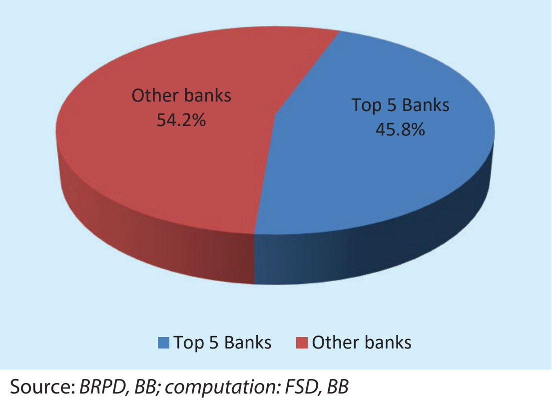


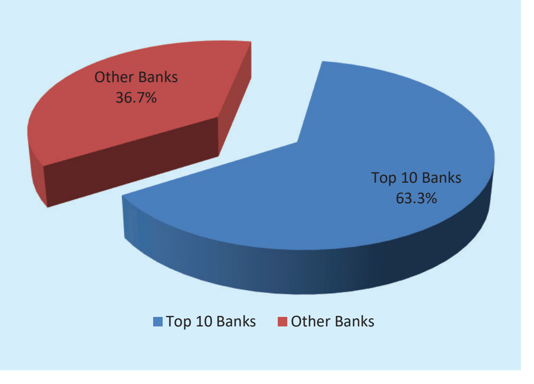
Source: *BRPD, BB; computation: FSD, BB.*

The improvement in the provision maintenance ratio is attributable to surplus provision maintained by different categories of banks except the SCBs. The SCBs experienced a provision shortfall of BDT 78.1 billion in CY19 (BDT 78.6 billion in CY18). Besides, 8 PCBs also had provision shortfall, though PCBs as a banking cluster had an aggregate provision surplus of BDT 1.46 billion in CY19. The provision shortfall of the banking industry increased in terms of aggregate amount but number of banks having shortfall declined in CY19 from that of CY18.

Top 5 and top 10 banks held nearly 46 percent and 63 percent of NPLs respectively.

CHART 2.15: TOP 5 AND TOP 10 BANKS BASED ON GROSS NPL SIZE





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

The gross NPL concentration ratios (based on the size of gross NPLs) of the top 5 and top 10 banks were 45.8 and 63.3 percent respectively as of end-December 2019 against the corresponding figures of 50.9 and 66.0 percent in CY18. The entry of new banks in the system and a significant amount of NPL turned into regular loans might be the reasons behind this decline. In CY19, in terms of NPL size, the top 10 banks include five (5) SCBs, four (4) PCBs, and one (1) SDB. In terms of gross NPL ratio, among the top 10 banks, four (4) were SCBs, three (3) were PCBs, two (2) were SDBs and one (1) was FCB.

The sector-wise NPL distributions did not show much concentration of NPL in any particular sector except Trade and Commerce in CY19.

Table 2.3 shows a modest concentration of NPLs across different sectors of the economy in CY19. However, NPL concentration remained high in loans against Trade and Commerce sector. The share of NPL in this sector (28.0 percent) was considerably high in comparison with the share of loans distributed in this sector (21.9 percent). Moreover, the gross NPL ratio of this sector was 2.6 percent higher than the industry NPL ratio. As loans in the Trade and Commerce sector occupied more than one-fifth of the banking sector loans and advances, high NPLs in this sector needs to be monitored intensively. Besides, high gross NPL ratio (19.7 percent) in the Ship-building and the Ship-breaking sector remained another major concern.

TABLE 2.3: SECTOR-WISE NONPERFORMING LOANS DISTRIBUTION (CY19)

(Amount in billion BDT)

Sl. No.	Name of Sector	Total loans outstanding	Gross NPL	Gross NPL Ratio	% share of loans extended to a particular sector	% share of NPLs of a particular sector
1	**Agriculture**	425.2	46.3	10.89%	4.2%	4.9%
2	**Industrial (Manufacturing):**					
2.1	RMG	1142.7	119.9	10.49%	11.3%	12.7%
2.2	Textile	822.6	79.9	9.71%	8.1%	8.5%
2.3	Ship building and Ship breaking	158.4	31.2	19.72%	1.6%	3.3%
2.4	Agro-based Industry	700.9	70.4	10.05%	6.9%	7.5%
2.5	Other Industries (Large Scale)	1482.9	101.8	6.87%	14.7%	10.8%
2.6	Other Industries (Small, Medium and Cottage)	438.7	55.6	12.67%	4.3%	5.9%
3	**Industrial (Services):**					
3.1	Housing loans	389.0	30.4	7.80%	3.8%	3.2%
3.2	Other than Housing Loans	305.6	18.7	6.12%	3.0%	2.0%
3.3	Transport and Communication	211.3	17.5	8.30%	2.1%	1.9%
3.4	Other Service Industries	382.6	24.3	6.34%	3.8%	2.6%
4	**Consumer Credit:**					
4.1	Credit Card	54.9	3.6	6.57%	0.5%	0.4%
4.2	Auto (Car) Loan	24.6	0.6	2.64%	0.2%	0.1%
4.3	Housing Finance	161.8	9.1	5.61%	1.6%	1.0%
4.4	Personal	325.0	8.1	2.48%	3.2%	0.9%
5	**Trade and Commerce (Commercial Loans)**	2213.1	264.1	11.93%	21.9%	28.0%
6	**Credit to NBFI**	80.9	5.0	6.20%	0.8%	0.5%
7	**Loans to Capital Market:**					
7.1	Merchant Banks	22.2	0.2	0.72%	0.2%	0.0%
7.2	Other than Merchant Banks	22.8	1.2	5.25%	0.2%	0.1%
8	**Other Loans**	751.0	54.6	7.28%	7.4%	5.8%
	Total	**10116.2**	**942.5**	**9.32%**	**100.0%**	**100.0%**

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

'Bad and Loss' category loans to gross NPL ratio increased marginally from CY18 and remained high in CY19.

In CY19, the percentage of Bad & Loss (B/L) loans to gross NPL increased to 86.8 percent compared to 85.9 percent in CY18. This high B/L loan ratio indicates that a major portion of the NPL has not been performing for a longer period. This legacy issue needs to be resolved for the improvement of the financial stability condition concerning the banking sector. The other two categories of classified loans, sub-standard (SS) and doubtful (DF) constituted 9.1 percent (9.4 percent in CY18) and 4.1 percent (4.7 percent in CY18) of the total NPL respectively as shown in Chart 2.16.

CHART 2.16: GROSS NPL COMPOSITION IN CY19

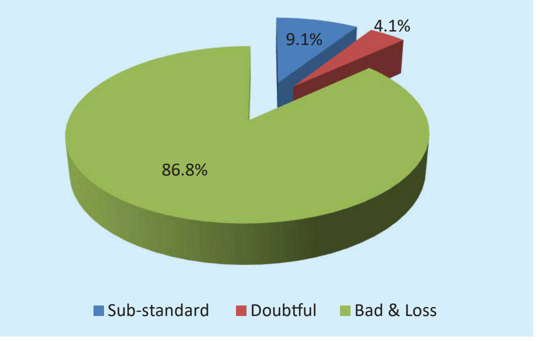
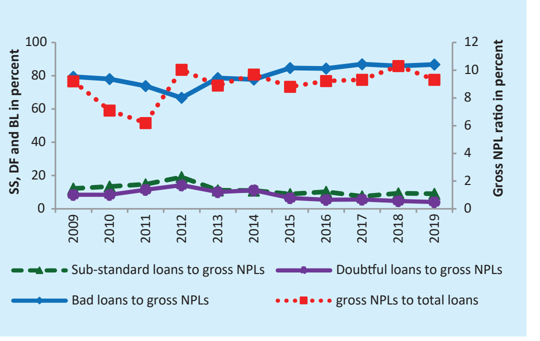


CHART 2.17: YEAR-WISE RATIOS OF THE THREE CATEGORIES OF NPLS



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

Chart 2.17 illustrates that the proportion of bad loans has been increasing since 2012 and remained above 80 percent of the gross NPL over the years, suggesting slow recovery from bad loans. Higher B/L loans adversely affects profitability and capital base of the banks since banks have to maintain 100 percent provision against B/L loans. The total B/L loan of the banking sector reached BDT 818.8 billion in CY19 (806.9 billion in CY18). Though B/L loans increased by BDT 11.9 billion in CY19, it still accounts for the majority of NPLs which indicates that total NPL is mostly comprised of the worst category of classified assets.

The outstanding balance of written-off loans stood at BDT 443.0 billion at end-December 2019.

Adversely classified loans of BDT 560.2 billion were written-off from the banks' balance sheet till December 2019,[20] which was BDT 528.8 billion at the end of CY18. Indeed, written-off loans increased by BDT 31.4 billion during CY19. The cumulative written-off amount roughly accounted for 3.4 percent of the banking sector's on-balance sheet assets at end-December, 2019. However, out of the total written-off loans, banks have been able to recover BDT 117.2 billion till end-December, 2019 and thus the outstanding balance of written-off loans stood at BDT 443.0 billion.[21]

2.4 RESCHEDULED ADVANCES

Due to conducive policy support of BB, the rescheduled loans increased in the review year compared to the preceding year. Intensive monitoring is warranted to ensure timely recovery of these loans and thus to lessen the pressure on the banking system.

Rescheduling is practiced in financial intermediation arena to give some breathing period for recovery of NPL. Therefore, Bangladesh Bank, vide BRPD circular no. 15, dated 23 September 2012, issued the main loan rescheduling policy for the banking sector of Bangladesh, which went through few amendments thereafter. Recently, Bangladesh Bank has issued a special policy on loan rescheduling and a one-time exit to support the long-standing bad loans which were affected due to adverse circumstances[22].

At the end-December 2019, the loans that had been rescheduled for at least once reached 14.1 percent of banking sector's total outstanding loans. 79.6 percent of that rescheduled loans remained unclassified. Chart 2.18 shows the trend of rescheduled loan ratio along with the portion of unclassified rescheduled loan (URSDL) ratio and the non-performing (or classified) rescheduled loan (CRSDL) ratio[23] of last four years. The graph reveals an upward trend of increasing rescheduled loans

20 Source: BRPD, BB. Provisional data has been used.

21 Despite the loans being written off, the legal procedures against the defaulted borrowers continue and initiative persist by the banks for successful recovery of those loans.

22 BRPD Circular No. 05 dated 16 May 2019.

23 Rescheduled loan ratio= Total rescheduled loans to total loan outstanding
Unclassified loan ratio= total unclassified rescheduled loans to total loan outstanding
Classified loan ratio= total classified (non-performing) rescheduled loans to total loan outstanding

in the banking system in Bangladesh since 2017. Between 2018 and 2019, the total rescheduled loan ratio increased by 3.5 percentage points. Notably, CRSDL decreased by 0.2 percentage point against the 3.7 percentage points increment observed in URSDL. Not only newly classified loans, but also a significant amount of classified loans converted earlier from rescheduled loans during 2016-18 has also turned into new rescheduled loans.

CHART 2.18: RESCHEDULED LOAN RATIO TREND

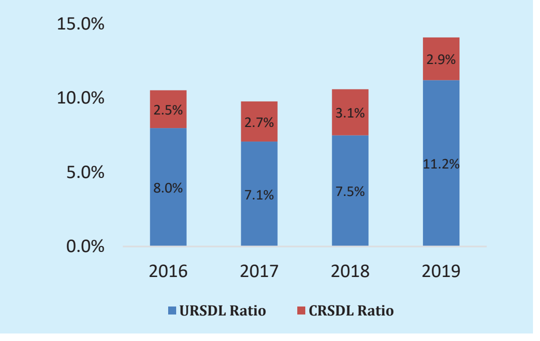
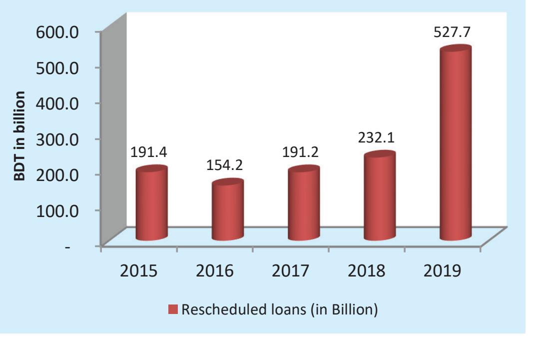


CHART 2.19: TREND OF RESCHEDULED LOAN



Source: *Scheduled Banks; computation: FSD, BB*

Chart 2.19 shows the trend of classified loans, which were rescheduled in the past five years. In 2015, the total rescheduled loan was BDT 191.4 billion which stood at BDT 527.7 billion in 2019. Compared to CY18, rescheduled loans registered an increase of 127.4 percent at end-CY19.

CHART 2.20: SECTOR-WISE RESCHEDULED LOAN COMPOSITION

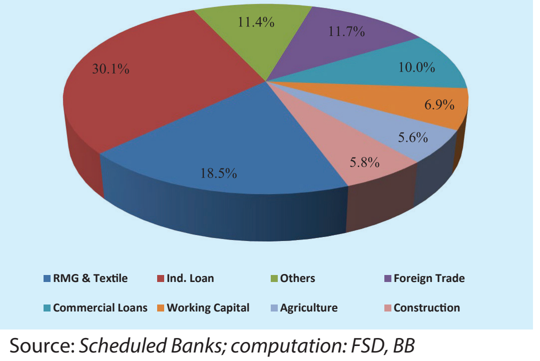
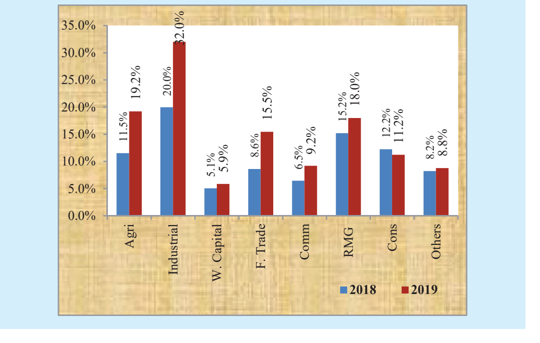


CHART 2.21: SECTOR-WISE RESCHEDULED LOAN RATIO



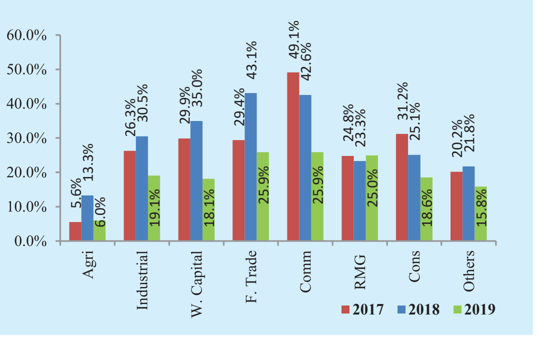
Source: *Scheduled Banks; computation: FSD, BB*

Chart 2.20 illustrates the sector-wise composition of rescheduled loans at end-December 2019. Rescheduled loans in the industrial sector (regardless of the size of the industries) were 30.1 percent while the percentage was 6.9 percent in the working capital category. RMG & textile sector accounted for 18.5 percent of the industry's rescheduled loans. Among the other loans categories, commercial loans, other non-specified sectors (including ship-building and ship-breaking, transportation and communication and consumer credit, etc.) and foreign trade (export credit, import credit, and loans against trust receipts) shared 10.0 percent, 11.4 percent and 11.7 percent of the total rescheduled loans respectively.

The rescheduled loan ratio of the industrial sector ranked top among all the sectors (Chart 2.21) with 32.0 percent in 2019 followed by agricultural, RMG, foreign trade, and construction sectors with 19.2, 18.0, 15.5 and 11.2 percent respectively. The rescheduled loan ratio in the remaining sectors was less than 10 percent. The rescheduled loan in every sector (except construction) increased due to temporary relaxation in down payments.

Chart 2.22 demonstrates the sector-wise non-performing rescheduled loan ratio. Although 9.2 percent of commercial loans have been rescheduled, 25.9 percent of them remained non-performing. The non-performing rescheduled loans ratio of foreign trade, RMG, industrial, construction, and working

CHART 2.22: SECTOR-WISE NON-PERFORMING RESCHEDULED LOAN RATIO

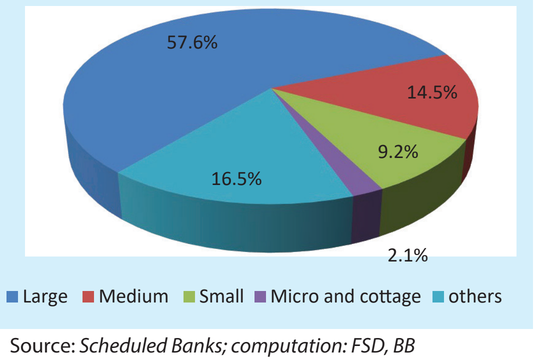


Source: *Scheduled Banks; computation: FSD, BB.*

capital sectors were 25.9, 25.0, 19.1, 18.6 and 18.1 percent respectively. However, non-performing rescheduled loans in the agricultural sector were relatively lower, at 6.0 percent, compared to other sectors.

Chart 2.23 exhibits the share of rescheduled loans to large, medium, small, and micro and cottage industries. As of December 2019, 57.6 percent of total rescheduled loans, amounting to BDT 872.6 billion, was under large industries. Shares of medium, small, micro and cottage, and other industries were 14.5 percent, 9.2 percent, 2.1 percent and 16.5 percent respectively.

CHART 2.23: INDUSTRY-WISE RESCHEDULED LOAN COMPOSITION



Source: *Scheduled Banks; computation: FSD, BB*

CHART 2.24: INDUSTRY-WISE RESCHEDULED LOAN RATIO

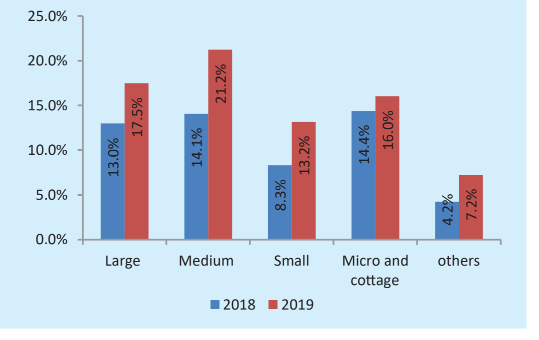
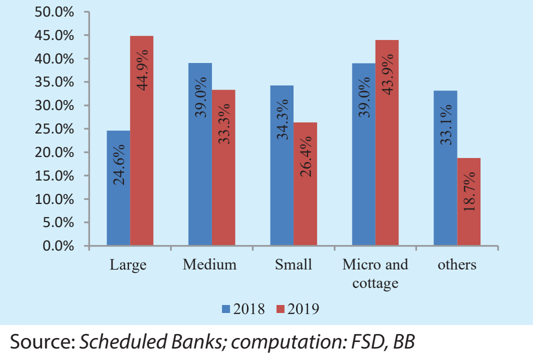


Chart 2.24 illustrates the industry-wise rescheduled loan ratio at end-December 2019. The highest rescheduled loan ratio was observed in medium industries with 21.2 percent followed by large, micro and cottage, small and other industries with 17.5, 16.0, 13.2, and 7.2 percent respectively. All ratios were higher than those of the previous year.

CHART 2.25: INDUSTRY-WISE NON-PERFORMING RESCHEDULED LOAN RATIO



Source: *Scheduled Banks; computation: FSD, BB*

Chart 2.25 illustrates the industry-wise non-performing rescheduled loan ratio. Although only 17.5 percent of loans in large industries were rescheduled, 44.9 percent of these rescheduled loans remained non-performing. Non-performing rescheduled loans in micro and cottage industry were 43.9 percent followed by medium, small and other industries, which accounted for 33.3, 26.4, and 18.7 percent respectively.

CHART 2.26: BANK CLUSTER-WISE RESCHEDULED LOAN COMPOSITION

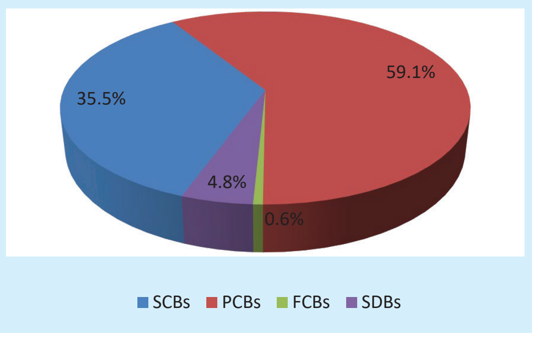
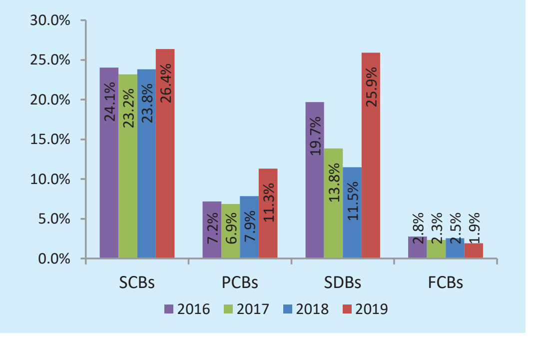


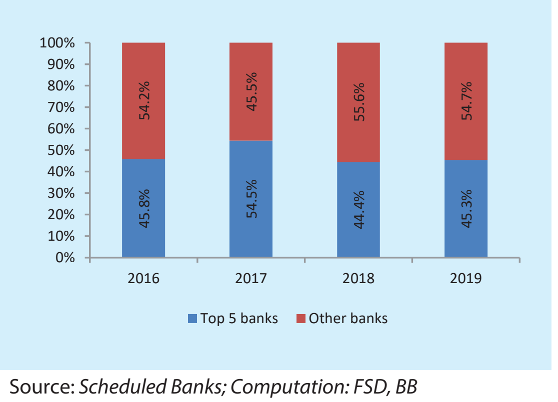
CHART 2.27: BANK CLUSTER-WISE RESCHEDULED LOAN RATIO

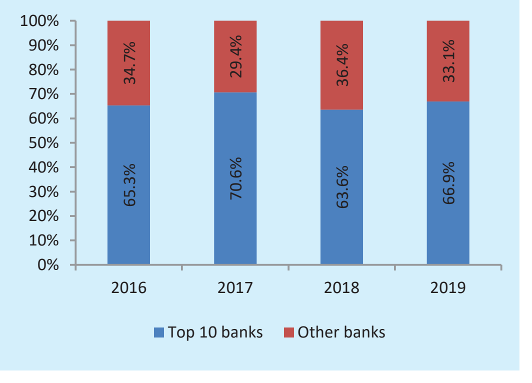


Source: *Scheduled Banks; computation: FSD, BB*

At end-December 2019, PCBs occupied the highest amount of rescheduled loans, which accounted for 59.1 percent of total rescheduled loans of the banking industry. During the same period, shares of SCBs, SDBs, and FCBs in industry's aggregate rescheduled loans were 35.5, 4.8, and 0.6 percent respectively (Chart 2.26).

CHART 2.28: TOP 5 AND TOP 10 BANKS BASED ON RESCHEDULED LOAN SIZE



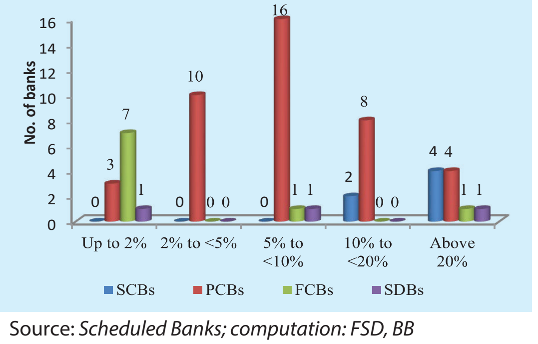


Source: *Scheduled Banks; Computation: FSD, BB*

However, Chart 2.27 reveals that the SCBs, at end-December 2019, ranked top with rescheduled loan ratio of 26.4 percent followed by SDBs with 25.9 percent. The ratios were 11.3 percent and 1.9 percent respectively for PCBs and FCBs. This ratio increased for all bank clusters except FCBs in 2019.

Chart 2.28 highlights the concentration of outstanding rescheduled loans among the top 5 and top 10 banks. At end-December 2019, the top 5 banks held 45.3 percent of total outstanding rescheduled loans, while share of the top 10 banks was 66.9 percent. The top 5 banks comprised two SCBs and three PCBs and the top 10 banks included five SCBs, four PCBs, and one SDB.

CHART 2.29: DISTRIBUTION OF BANKS BY RESCHEDULED LOAN RATIO



Source: *Scheduled Banks; computation: FSD, BB*

Chart 2.29 shows the distribution of banks by rescheduled loan ratio. The rescheduled loan ratio lied between 5 to 10 percent for 18 banks. The ratio was within two percent for 11 banks, of which three were PCBs, seven were FCBs and one was SDB. In 2019, 39 banks had rescheduled loans ratio within 10 percent. However, in 2018, 43 banks had this ratio within 10 percent and only 14 banks had it above 10 percent ratio. In 2019, the number of banks having more than 10 percent of rescheduled loans increased to 20.

The banking sector extends funds to businesses for new capital formation and thus to augment the country's growth process. While doing so, the banks also help prospective borrowers to sustain during their difficult times by rescheduling overdue loans in line with BB's guidelines. However, the accumulation of huge rescheduled loans may create pressure on the profitability and solvency of the banks. So, intensive monitoring and execution of stringent measures for recovery of credit is needed to mitigate the downside risks of the banking system as a whole.

2.5 LIABILITY STRUCTURE OF THE BANKING SECTOR

After continuous deceleration in recent years, the rate of growth in deposit picked up in CY19. The higher deposit growth along with reallocation of institutional deposits helped banks, especially the PCBs, to effectively manage their liquidity situation. Besides, in the wake of COVID-19 pandemic, government's large-scale stimulus credit package supported by central bank's refinancing schemes might help the banking sector to manage liquidity stress in the coming days.

Deposits constituted the largest share of funds in the banking sector. At end-December 2019, total deposits increased by 11.3 percent (10.5 percent in CY18). However, after netting off interbank deposit, deposit growth stood at 12.4 percent. This non-interbank deposit growth picked up in CY19 after a continuous deceleration since CY15. Policy supports for remittance inflow, rationalization of yield on National Savings Certificates (NSCs), decline in NSC sale, channelizing investment in NSCs through banking channel and reduction in service charges on deposit products, among others, were some of the key reasons behind the rise in deposits. Higher deposit growth supported a higher asset growth and also provided banks with enough cushion to manage their liquidity. The deposit growth in the banking sector, however, might decline in near future due to the impact of COVID-19 outbreak. This might happen because weaker economic activities accompanied by lower demand for labor force in remittance originating countries might induce slowdown in foreign remittance inflow and demand for holding excess cash may also increase due to uncertainty associated with the pandemic. However, both BB and government have declared a bulk amount of stimulus credit package to maintain current growth momentum and also to boost up liquidity in the banking system, which should help the banks to overcome the difficulties caused by COVID-19 pandemic.

At end-December 2019, the share of total deposits was 81.6 percent (82.0 percent in CY18) of the total liabilities (Chart 2.30). The change in the composition of total liabilities was due to the surge in other liabilities for the booking of additional provisions in different segments.

CHART 2.30: YEAR-WISE BANKING SECTOR LIABILITY STRUCTURE

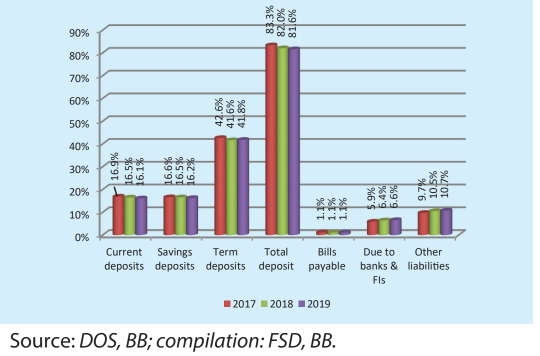
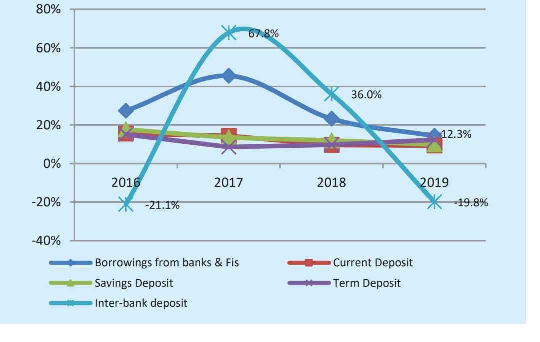


CHART 2.31: YEAR-WISE GROWTH OF DEPOSITS AND BORROWINGS FROM BANKS AND FIs



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

Among the various deposit categories, term deposits exhibited higher growth of 12.3 percent in CY19 (9.7 percent in CY18) while current and savings deposits grew by 9.3 percent (9.6 percent in CY18) and 9.8 percent (11.9 percent in CY18) respectively (Chart 2.31). The 19.8 percent negative growth of interbank deposits also indicated ease of liquidity situation and banks did not approach for funding from other banks to finance their day-to-day operations. Borrowings from other banks and FIs increased by 14.3 percent (23.2 percent in CY18). The reallocation of institutional deposits to the PCBs could be the main reason behind the fall in growth in interbank deposits and borrowing from other banks. Though increased deposit in CY19 was positive for the banking industry banks should continue to strive for higher deposit collection from the general public at an affordable rate to support adequate credit supply and to avoid credit rationing in the future.

The deposit growth rate (excluding interbank deposits) exceeded the loan growth rate, which widened the positive gap between outstanding deposits and loans in CY19.

The deposit growth rate (excluding interbank) of 12.4 percent for the first time in several years exceeded the growth rate of loans (11.9 percent) in CY19 (Chart 2.32). As a result, the gap between outstanding deposit and loans widened to BDT 1,305 billion in CY19 from BDT 1,113 billion in CY18 (Chart 2.33). This improved liquidity scenario also indicates that banking system had a reasonable liquid fund to satisfy the growing loan demand. However, even with higher deposit growth, the loan growth of only 11.9 percent suggests a cautious stance by banks. It seemed that the legacy of high NPLs made them cautious in lending. Therefore, to utilize their extra liquidity they opted for secured alternative, i.e., investment in government securities. A growing economy like Bangladesh needs credit available to the private sector to support businesses and ensure a sustainable growth. Banks should strive for increasing their deposit base and ensuring higher credit to the private sector.

CHART 2.32: YEAR-WISE LOANS AND DEPOSIT GROWTH

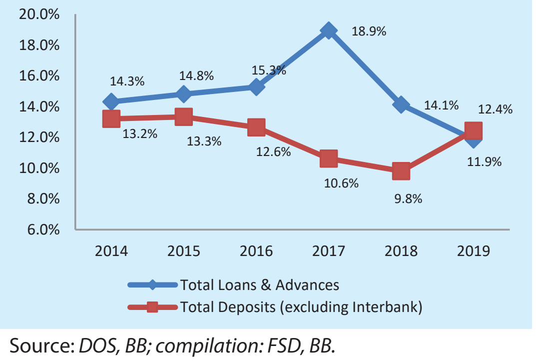
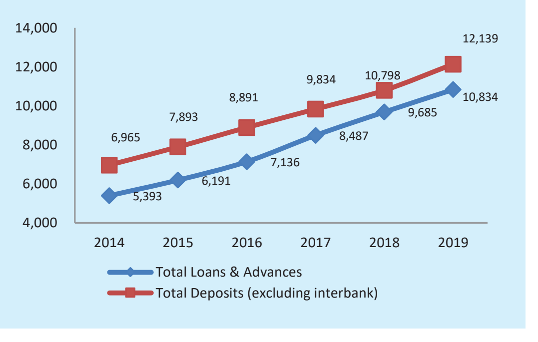


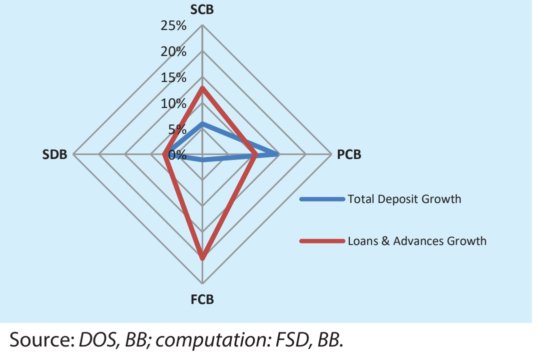
CHART 2.33: LOANS AND DEPOSITS OUTSTANDING (BILLION BDT)



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

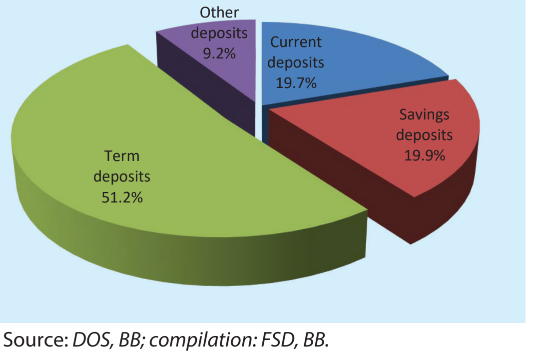
Chart 2.34 compares the deposit and loan growth of four banking clusters in CY19. Only PCBs had higher deposit growth than loan growth. As PCBs constituted the major portion of the industry, their high deposit growth ensured that industry deposit growth outpaced the industry loan growth. High ADR in PCBs in CY18 could be one reason behind the cautious loan disbursement from PCBs and resulting low loan growth in CY19.

CHART 2.34: GROWTH RATE COMPARISON OF BANK CLUSTERS (CY19)



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

CHART 2.35: BANKING SECTOR'S DEPOSIT SHARE BY TYPES OF ACCOUNTS: CY19



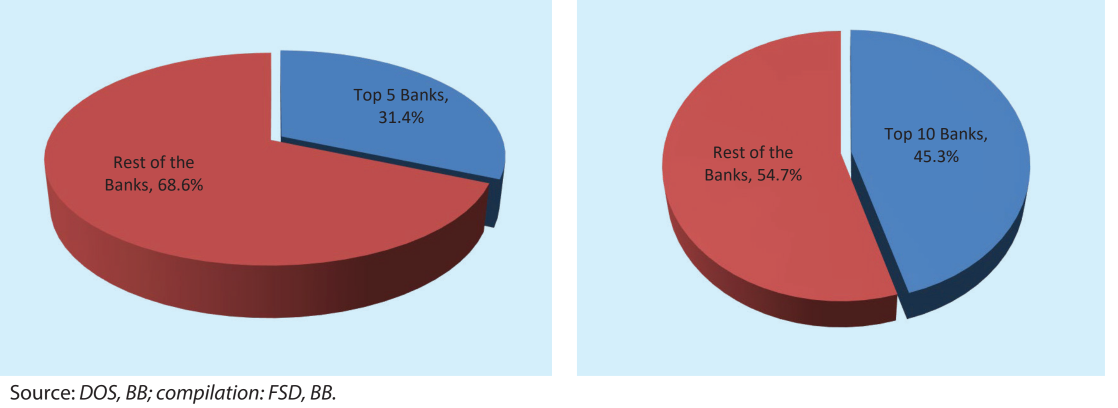
Source: *DOS, BB; compilation: FSD, BB.*

At end-December 2019, the share of term deposits was 51.2 percent of total deposits, whereas the shares of savings deposits, current deposits and other deposits were 19.9 percent, 19.7 percent and

9.2 percent respectively. The share of different kinds of deposits remained almost similar to those of CY18. Higher proportion of term deposits provides banks with more stable source of funding, thereby promoting financial stability. However, term deposits which usually carry higher rate also increase the funding cost for banks.

Concentration of deposits (excluding interbank) in the top five (5) and top ten (10) banks in CY19 declined compared to CY18 (Chart 2.36). These banks accounted for 31.4 and 45.3 percent of total deposits respectively during CY19, compared to 32.7 and 46.2 percent in CY18. Four (4) SCBs and one (1) PCB were listed as the top five (5) in terms of deposit holding.

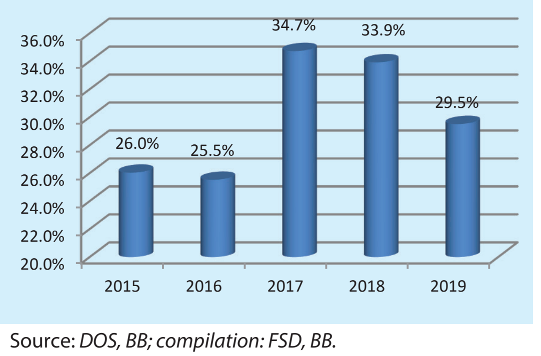
CHART 2.36: TOP 5 AND TOP 10 BANKS BASED ON SIZE OF DEPOSIT



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

The off-balance sheet (OBS) asset to on-balance sheet asset ratio decreased in CY19 compared to that of the preceding year, which could be partly attributed to moderate state of import growth in the review year. Low growth of OBS exposure might reduce the pace of forced loan creation and its conversion into potential NPLs.

CHART 2.37: OBS ITEMS TO ON-BALANCE SHEET ASSET RATIO



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

Financial stability risk might arise from off-balance sheet items as well, if it is not monitored properly. In the last two calendar years, the aggregate balance of OBS items increased rapidly. The balance was BDT 4,942 billion at the end of CY18, which however, stood at BDT 4,808 billion at the end of CY19, resulting in a much lower OBS to on-balance sheet asset ratio of 29.5 percent (Chart 2.37).

As Chart 2.37 shows, OBS exposures to the total asset ratio of the banking sector were a bit higher in CY17 and CY18, primarily due to rise in import financing. However, as the ratio declined notably in CY19, the risks from OBS items seemed to be lower in CY19 compared to the earlier two years.

2.6 BANKING SECTOR DEPOSIT SAFETY NET

Under the deposit safety net, 92.1 percent of the total account holders with maximum balance of BDT 1,00,000 are insured. However, only 23.1 percent of the total deposits of the entire banking system are insured under Deposit Insurance Trust Fund (DITF) at end-December 2019.

The deposit insurance system in Bangladesh has been administered by the 'The Bank Deposit Insurance Act 2000'. In accordance with the Act, BB is authorized to carry out a fund called Deposit Insurance Trust Fund (DITF). The amount at the DITF reached BDT 87.5 billion at end-December 2019, which was 17.8 percent higher than that of end-December 2018 (Table 2.4). This fund is invested in the long-term government securities, so the balance is almost composed of investment and rest of the amount is kept in cash. The premium rate varies based on the CAMELS rating of the banks. Despite having a steady progression of premium collection and investment income, the existing balance of DITF stood at only 0.86 percent (premium amount) of the total deposits of the banking system at end-December 2019.

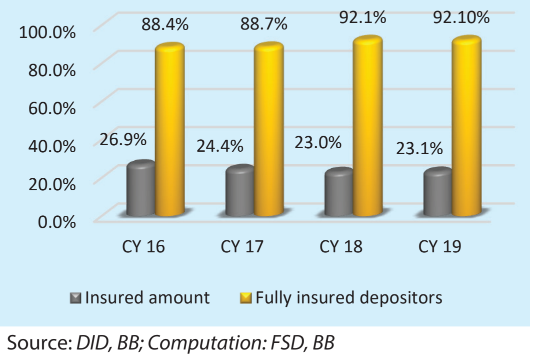
TABLE 2.4: DEPOSIT INSURANCE TRUST FUND AND ITS COMPOSITION

(Amount in Billion BDT)

Particulars	2015	2016	2017	2018	2019
Insurable Deposits	6816.38	7918.17	8334.27	9051.76	10164.92
Insurance Premium (during the year)	4.01	4.6	5.07	5.49	6.01
i. Investment	44.06	53.73	63.98	74.24	87.42
ii. Cash	0.57	0.0086	0.042	0.041	0.053
Deposit Insurance Trust Fund Balance	44.63	53.74	64.02	74.28	87.48

Source: DID, BB.

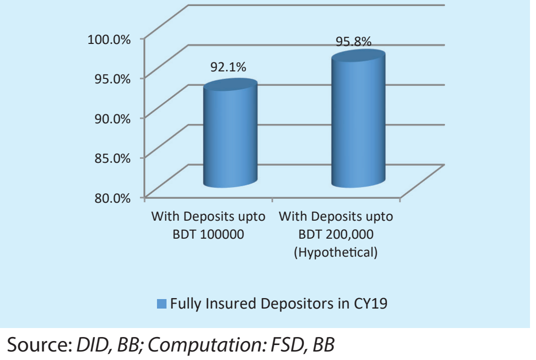
CHART 2.38: SAFETY NET ON BANKING SECTOR DEPOSITS



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

The percentage of insured amount of deposit to total deposits under deposit safety net increased slightly from 23.0 percent in CY18 to 23.1 percent in CY19. The insurable deposits with the banks also grew by 12.3 percent in 2019 (the growth was 8.6 percent in 2018). However, 92.1 percent of the total depositors (with maximum balance of BDT 1.0 lac) of the entire banking system are insured under the deposit insurance scheme indicating a comprehensive deposit safety net for the small depositors, which covers the majority of the depositors (Chart 2.38).

CHART 2.39: PROTECTION OF DEPOSITORS ON ENHANCEMENT OF INSURED DEPOSIT COVERAGE LEVEL



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

With a view to enhancing the safety net of the depositors for the financial institutions like banks, amendment of 'The Bank Deposit Insurance Act 2000' is under process at the Ministry of Finance. It appears that the percentage of fully insured depositors may be increased to 95.8 percent of the total depositors if the existing coverage is extended up to BDT 200,000 per depositor of the banking industry (Chart 2.39).

BOX 2.1: THE CAPACITY OF EXISTING DITF AND ITS FORECAST

The capacity of the DITF seems to be adequate in case of single bank liquidation. Chart B2.1.1 and B2.1.2 illustrate that the fund from the DITF will be enough to liquidate three PCBs chosen based on the highest GNPL ratio in the banking industry at end-December 2019. Under the current insured deposit level, this will require only 9.5 percent of the current balance. Under the existing scenario, 14.2 percent of the current balance will be required considering the minimum insured level up to BDT 2,00,000.

CHART B2.1.1: UTILIZATION OF FUND FROM DITF TO LIQUIDATE THREE PRIVATE COMMERCIAL BANKS AT CURRENT INSURED LEVEL OF BDT 100,000.

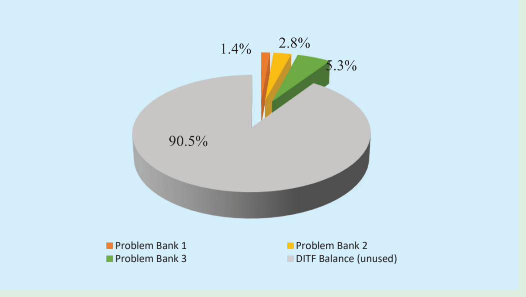
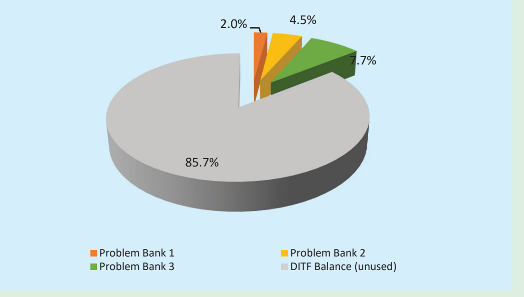


CHART B2.1.2: UTILIZATION OF FUND FROM DITF TO LIQUIDATE THREE PRIVATE COMMERCIAL BANKS AT INSURED LEVEL OF BDT 200,000.



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

Chart B2.1.3 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 an ascending manner of their corresponding deposit size, irrespective of the category. However, a significant number of banks' depositors may not be fully compensated (hypothetical scenario) with the current balance of DITF due to the larger size of the deposit bases of those banks.

CHART B2.1.3: OPTIMUM NUMBER OF SMALL BANKS CAN BE LIQUIDATED USING FUND FROM DITF.

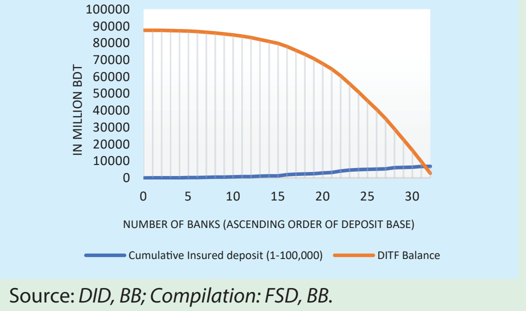
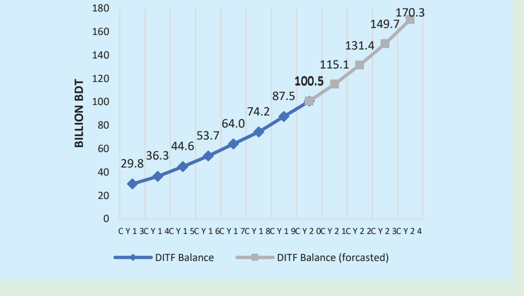


CHART B2.1.4: FORECASTED DEPOSITORS' SAFETY NET IN NEXT 5 YEARS (BILLION BDT)



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

There is no evidence of bank liquidation in Bangladesh so far. After the incorporation of the deposit insurance system in 1984, the cumulative balance of DITF accounted for BDT 87.5 billion at end-December 2019. The forecasted balance of DITF may reach BDT170 billion in 2024*(Chart B2.1.4)

For Methodology of forecasting the Deposit Insurance Trust Fund (DITF) please see Financial Stability Report 2014

2.7 BANKING SECTOR PROFITABILITY

The banking sector demonstrated a moderate increase in net profit after taxes in CY19 compared to that of CY18.

Banking sector's operating profit[24] increased to BDT 284.5 billion in CY19 from BDT 266.4 billion in CY18, recording an increase of 6.8 percent. Net profit increased by 87.6 percent from BDT 40.4 billion in CY18 to BDT 75.8 billion in CY19. It is noteworthy that the total maintained provisions decreased to BDT 114.8 billion in CY19 compared to BDT 146.2 billion in CY18, registering a decrease of 21.5 percent during the review year. The rise in net profit during CY19 could be attributed to lower provision requirements due to rescheduling and restructuring of non-performing loans.

ROA and ROE of the banking industry increased in CY19 as compared to those of CY18.

Return on Asset (ROA) increased to 0.5 percent at end-December 2019 from 0.3 percent at end-December 2018. In addition to that, the return on equity (ROE) increased by 3.0 percentage points and reached to 7.4 percent in CY19 from 4.4 percent in CY18.

CHART 2.40: BANKING SECTOR RETURN ON ASSETS (ROA)

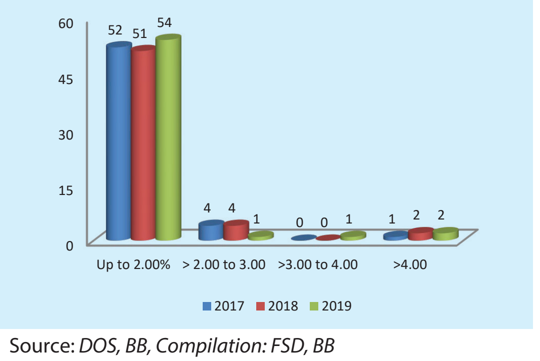
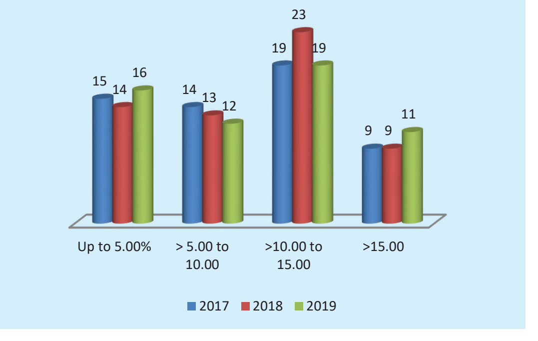


CHART 2.41: BANKING SECTOR RETURN ON EQUITY (ROE)



Source: *DOS, BB, Compilation: FSD, BB*

In the review year, ROA of 20 banks increased, the position of 19 banks remained unchanged while the same of 18 banks declined. Similarly, ROE of 27 banks increased, the position of 9 banks registered no change and 21 banks' ROE declined slightly. Notably, 93.1 percent of the banks had ROA of up to 2 percent (Chart 2.40) and 51.7 percent of the banks had ROE higher than 10 percent (Chart 2.41). Total interest income and interest expense increased by 15.2 and 17.7 percent respectively in CY19 from those of CY18. On the other hand, non-interest income increased by 7.4 percent in the review year, compared to the preceding year, indicating rising investment income due to higher yields on the government securities.

In CY19, the overall Net Interest Margin[25] of the banking industry decreased to 2.14 percent from 2.2 percent in CY18 due to lower interest earning compared to interest expense.

The net interest margin (NIM) decreased by 6 basis points from 2.2 percent in CY18 to 2.14 percent in CY19. Lower interest income may have affected net interest margin negatively.

24 profit before provision and tax

25 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 SCBs experienced positive NIM in CY19 for the second consecutive year whereas SDBs' NIM turned into negative after experiencing positive figures in the past two calendar years. The NIM of PCBs remained same at 2.8 percent. The NIM of FCBs decreased slightly and stood at 3.6 percent but continued to remain higher than all other categories of banks in CY19 (Chart 2.42). It is noteworthy that the interest income for FCBs was much higher compared to their interest expense, whereas the interest income barely exceeded interest expense for the SCBs and expenses for SDBs were higher than their income.

CHART 2.42: BANK TYPE WISE NET-INTEREST MARGIN

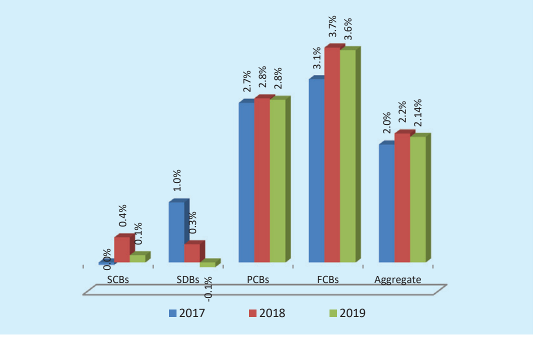
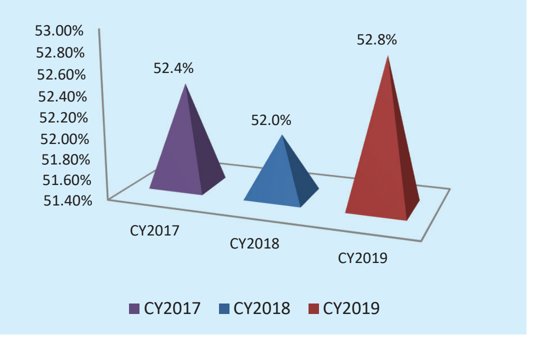


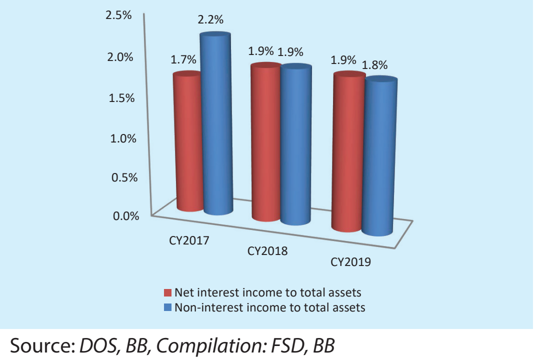
CHART 2.43:YEAR-WISE NON-INTEREST EXPENSE TO GROSS OPERATING INCOME RATIO



Source: *DOS, BB, Compilation: FSD, BB*

The ratio of non-interest operating expense to gross operating income[26] registered an increase of 80 basis points from 52.0 percent in CY18 to 52.8 percent in CY19 (Chart 2.43). Although the growth in operating income was 7.4 percent, operating expenses grew by 10.4 percent.

CHART 2.44: BANKING SECTOR INCOME BY SOURCES



Source: *DOS, BB, Compilation: FSD, BB*

The ratio of net interest income to total assets remained the same in CY19 compared to CY18. However, the ratio of non-interest income to total assets declined by 10 basis points from 1.9 percent in CY18 to 1.8 percent in CY19 (Chart 2.44). This might be due to decline in banks' fee-based income resulting from decline in banks' off-balance sheet businesses.

The overall interest rate spread decreased by 20 basis points at end-December 2019 compared to that of end-December 2018.

The weighted average interest rate spread for the banks decreased from 4.2 percent in December 2018 to 4.0 percent in December 2019 (Chart 2.45). However, the weighted average lending rate increased from 9.5 percent in December 2018 to 9.7 percent in December 2019. The weighted average deposit rate also recorded an increase from 5.3 percent to 5.7 percent during the same period[27].

26 Gross Operating Income=Net Interest Income + Non-interest Income.

27 The spread is generally a combination of many factors, such as, the level of competition in the banking sector, the amount of stressed loan, the managerial efficiency of financial intermediation process, and so on. Spread can fluctuate over time because of the overall level of interest-rate risk in the sector and movements in market interest rates.

CHART 2.45: BANKING SECTOR MONTHLY WEIGHTED AVERAGE OVERALL INTEREST RATE SPREAD

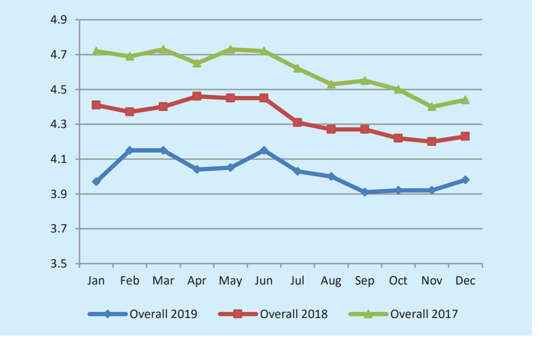
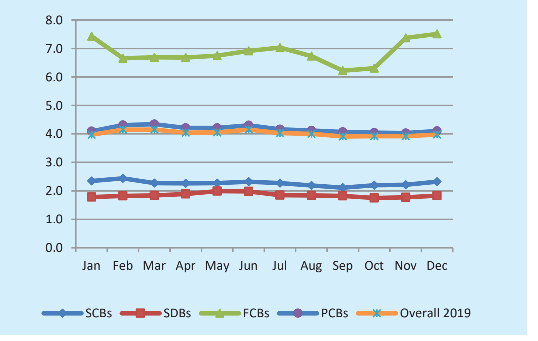


CHART 2.46: BANK CATEGORY-WISE MONTHLY WEIGHTED AVERAGE INTEREST RATE SPREAD FOR CY18



Source: Statistics Department, BB

Chart 2.46 illustrates interest rate spreads of different categories of banks. As the chart shows, the weighted average interest rate spread of the banking sector was hovering around 4.0 percent throughout the CY19. Spreads of SCBs and SDBs were well below 3.0 percent and they were compliant in bringing down lending rate within 9 percent during the review year, while the spread of PCBs remained just over 4.0 percent. On the other hand, for FCBs, the spread continued to remain higher than other bank clusters as they were extending consumer finance and credit card operation with an interest rate higher than the market rates.

2.8 CAPITAL ADEQUACY

Both capital to risk-weighted assets ratio (CRAR) and Tier-1 capital ratio[28] of the banking industry increased at end-December 2019 over the previous period largely due to improved capital position of SCBs and PCBs. Specially, reduction in provision requirement and some recovery made against defaulted loan led to the increased capital base of SCBs and PCBs.

CRAR of the banking industry stood at 11.6 percent at end-December 2019, which was 10.5 percent at end-December 2018. It was well above the minimum regulatory requirement of 10.0 percent in line with the Basel III capital framework issued by Bangladesh Bank in December 2014. The rising CRAR provides further resilience to banking sector of the country to withstand any endogenous or exogenous shock. Out of 58 scheduled banks, 48 banks maintained a CRAR of 10.0 percent or higher as of end-December 2019 (Chart 2.47). Though the number of CRAR compliant banks remained the same as of end-December 2018, the aggregate asset share of the CRAR compliant banks decreased marginally from 73.2 percent to 73.0 percent at end-December 2019 (Chart 2.48).

CHART 2.47: ASSET SHARE OF BANKS BASED ON CRAR AT END-DEC 2019

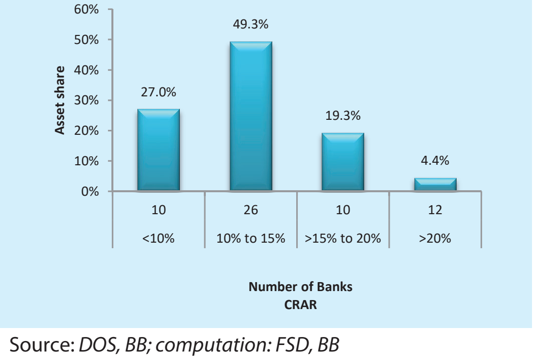
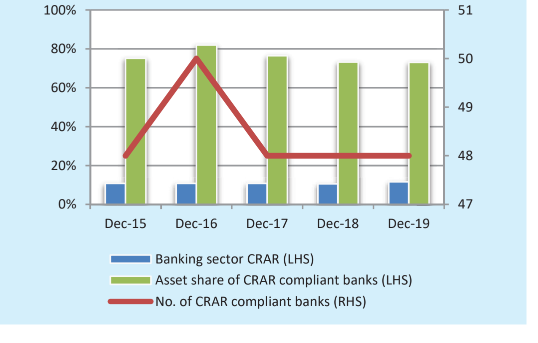


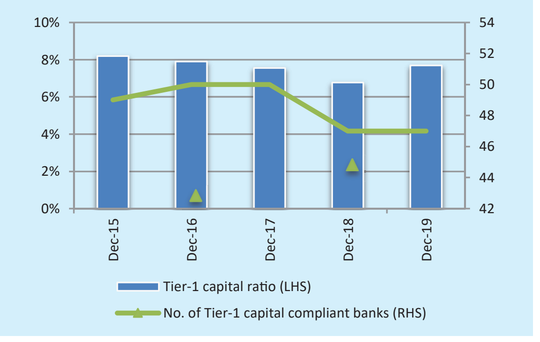
CHART 2.48: YEAR-WISE CRAR, CRAR COMPLIANT BANKS AND THEIR ASSET SHARE



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

28 Refers to Tier-1 capital to risk-weighted assets ratio.

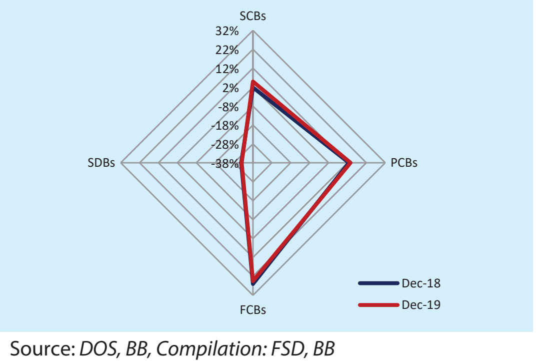
CHART 2.49: YEAR-WISE TIER-1 CAPITAL RATIO OF BANKS



Source: *DOS, BB, Compilation: FSD, BB*

Chart 2.49 depicts that the Tier-1 capital ratio of the banking sector picked up at end-December 2019 after experiencing a declining trend for the last few years. The ratio increased to 7.7 percent from 6.8 percent at end-December 2018 and was well above the regulatory minimum requirement of 6.0 percent. However, the number of Tier-1 capital compliant banks remained the same as that of the preceding period. Since Tier-1 capital constitutes the core capital of banks, improvement of this ratio serves as an extra cushion against the unexpected losses in future. So, it is indicating a positive sign from the financial stability viewpoint.

CHART 2.50:BANKING GROUP-WISE CRAR AT END-DEC 2018 AND 2019

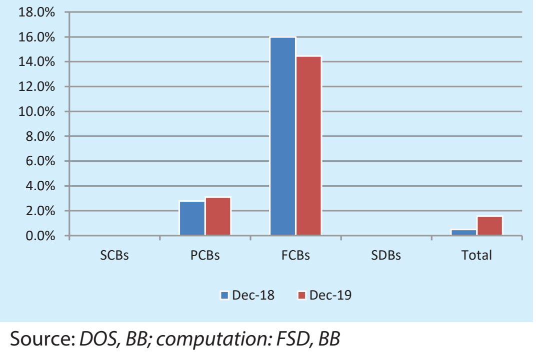


Source: *DOS, BB, Compilation: FSD, BB*

Chart 2.50 presents a comparative analysis of CRAR of different banking groups. It is observed that CRARs of SCBs and PCBs increased by 312 basis points (bps) and 82 bps respectively from end-December 2018 position and reached 5.0 percent and 13.6 percent respectively at end-December 2019. Besides, FCBs' CRAR declined slightly while SDBs' CRAR remained negative. Hence, it appears that a sharp rise in SCBs' CRAR due to improvement in their NPL ratio and subsequent phase out of loan-loss provisions largely contributed to improve overall CRAR of the industry in the review period.

In line with the Basel III framework[29], banks are required to maintain a Capital Conservation Buffer (CCB) above the regulatory MCR of 10.0 percent. Against the CCB requirement of 2.5 percent for CY19, the banking industry maintained a CCB of 1.6 percent as of end-December 2019 (Chart 2.50). It was 0.5 percent at end-December 2018 against the regulatory requirement of 1.875 percent for CY18. During the review period, 38 out of 58 banks were able to maintain the minimum required CCB.

CHART 2.51: BANKING GROUP-WISE CCB AT THE END OF CY18 AND CY19



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

Chart 2.50 shows that PCBs and FCBs maintained CCB above the minimum requirement as of end-December 2019. PCBs' CCB increased at end-December 2019 while FCBs' CCB recorded a decrease. SCBs and SDBs could not maintain CCB as they even failed to meet MCR of 10.0 percent. However, it is a good sign that one SCB was able to maintain the CCB requirement at the end of the review year.

Taking the cross-country scenario into account (Table 2.5), the capital adequacy of the country's banking sector remained low compared to the ratios of neighboring countries as of end-December 2019.

29 CCB requirement for banks in Bangladesh started from early 2016 in a phased-in manner and would be fully implemented by 2019 when CCB would be 2.5 percent above the regulatory MCR of 10.0 percent. CCB needs to be maintained in the form of Common Equity Tier-1 (CET-1) capital.

TABLE 2.5: COMPARISON OF CAPITAL ADEQUACY INDICATORS OF THE NEIGHBORING COUNTRIES					
Countries	**CRAR (%)**				
	2015	**2016**	**2017**	**2018**	**2019**
India	12.7*	13.3*	13.9*	13.7*	15.1*
Pakistan	17.3	16.2	15.8	16.2	17.0
Sri Lanka	15.4	15.6	15.2	15.1	16.5
Bangladesh	10.8	10.8	10.8	10.5	11.6

* Data as of end-September

Source: *Financial Stability Report (various issues), Reserve Bank of India; Quarterly Compendium: Statistics of the Banking System, December 2018, State Bank of Pakistan; Soundness Indicators – Quarterly Financial Information, Central Bank of Sri Lanka; and DOS, BB.*

2.9 LEVERAGE RATIO[30]

The banking sector maintained a leverage ratio well above the regulatory minimum requirement level led mainly by high leverage ratios of PCBs and FCBs. This indicates the financial strength of the banking sector to withstand probable systemic risks in future. However, over-leveraged position of SCBs in relation to their weak capital base remains a concern for financial stability.

In order to restrict the build-up of excessive on- and off-balance sheet leverage in the banking system, the Basel III framework introduced a simple, transparent, non-risk based leverage ratio to act as a credible supplementary measure to the risk-based capital framework. Against the regulatory minimum requirement of 3.0 percent, banking sector maintained a leverage ratio of 4.6 percent at end-December 2019, which is higher than 4.1 percent maintained at end-December 2018 (Chart 2.52). FCBs maintained the highest leverage ratio of 13.1 percent followed by PCBs' 5.7 percent in the review year. SCBs' leverage ratio, though turned positive during the period, remained below the minimum requirement. Since SCBs accounted for substantial banking sector exposures, their weaker leverage ratio raises concern for financial stability. However, the number of non-compliant banks in terms of leverage ratio decreased in the review period (Chart 2.53).

CHART 2.52: YEAR-WISE LEVERAGE RATIO OF BANKS

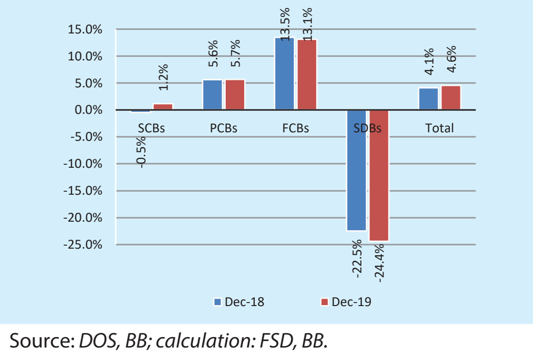
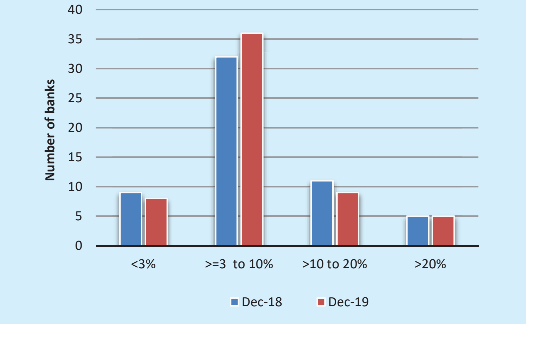


CHART 2.53: YEAR-WISE DISTRIBUTION OF BANKS' LEVERAGE RATIO



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

2.10 INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS (ICAAP)

In order to implement the Pillar 2 of Basel III framework, BB has been conducting supervisory review of scheduled banks' capital adequacy for covering all material risks through evaluating their Internal

30 Leverage ratio = (Tier-1 capital after related deductions)/ (Total exposure after related deductions).

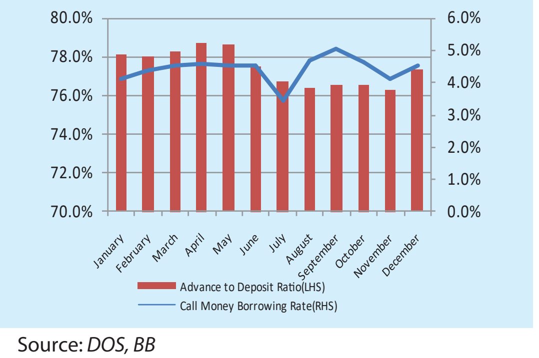
Capital Adequacy Assessment Process (ICAAP)[31]. Banks usually prepare ICAAP reports annually and submit the same to BB along with supplementary documents to be reviewed by BB. Under ICAAP, banks need to calculate capital charges against various risks, e.g. residual risk, concentration risk, liquidity risk, reputation risk, strategic risk, settlement risk, appraisal of core risk management practice, environmental and climate change risk and other material risks, which are generally not covered under pillar 1. Based on the findings of the ICAAP reports as of December 2018, the majority of the banks were found to maintain the capital charges required for Pillar 2 risks based on their banks' own estimation. It was observed that the estimated additional capital requirement for residual risk mainly due to error in documentation was the highest among the Pillar 2 risks. Besides, strategic risks and appraisal of core risk management practices were the other major concerns for banks. Building up additional capital against such major risks under Pillar 2 would help further strengthen the capital position of the banking sector and in turn, bolster financial stability.

2.11 BANKING SECTOR LIQUIDITY

The liquidity situation in the banking industry, particularly in PCBs, appeared to be easing during CY19.

The banking sector liquidity demonstrated a mixed trend in CY19 compared to the preceding year as evident from the movement in the advance-to-deposit ratio (ADR) and call money borrowing rate. The aggregate ADR of the banking industry slightly decreased to 77.3 percent at end-December 2019 from 77.6 percent at end-December 2018 as the growth of deposits (excluding interbank deposits) outpaced the growth of loans and advances during the review year. Accordingly, the ADR of the banking industry remained below the allowable limit[32] set by BB.

CHART 2.54: MONTHLY ADR AND CALL MONEY BORROWING RATE



Source: *DOS, BB*

As Chart 2.54 depicts, banking sector's ADR showed a mixed trend during CY19. The ratio increased gradually until April and thereafter showed a declining trend up to August, during September-October the ratio slightly elevated, in November it fell down and upturned again at the end of the year. The call money rate hovered around 4 percent to 5 percent throughout the year; it was at the peak in September (more than 5 percent) and again declined below 5 percent at the end of the year. The temporary rising trend in ADR was largely due to additional demand for loan to meet up various business obligation and payment of salaries and allowances of the employees by different organizations during Eid-ul Fitr. The slight increase at end-December was not prominent due to year-end closing. In a nutshell, overall monthly ADR was less volatile during CY19 and never crossed the regulatory limit during the year.

It may be mentioned that the loan growth of the banks was not that much prominent in CY19 partly due to slow recovery against NPL and different policy initiatives taken by the authorities for curbing the NPL through rescheduling and write-off. This might be a cause for the decline in ADR level during the CY19. During the last two quarters of CY19, the increase in call money rates might be an outcome of higher rate of interest on the Treasury bill and bond. On the other hand, as the non-bank financial institutions (NBFIs) are not allowed to borrow fund from Bangladesh Bank through Repo mechanism, they borrowed frequently from the call market to meet their emergency obligation, which was another reason for the rise in call market rate in the last quarter of CY19.

31 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.

32 Banks were instructed in September 2019 to rationalize their ADR within maximum 85.0 percent for conventional banks and 90.0 percent for Islamic Shari'ah based banks respectively by DOS Circular no.05 dated 17 September 2019.

CHART 2.55: BANKS' CLUSTER-WISE ADR

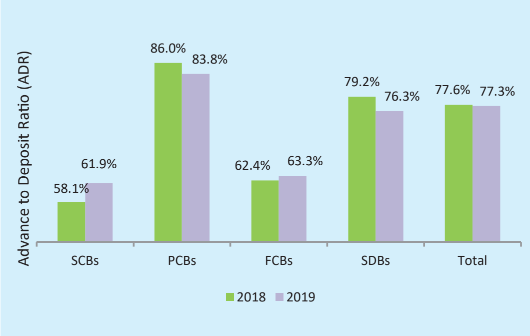
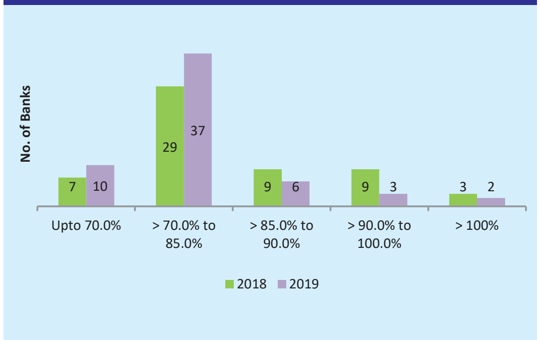


CHART 2.56: DISTRIBUTION OF BANKS IN TERMS OF ADR



Source: *DOS, BB.*

Chart 2.55 exhibits that ADRs of SCBs and FCBs increased, whereas ADRs of PCBs and SDBs declined in CY19 compared to the position of CY18. The ADR of PCBs, which was high at 86.0 percent in CY18, declined to 83.8 percent in CY19. Higher deposit growth of PCBs, compared to their loan growth in the review year, helped ease their liquidity situation and bring back liquidity within prescribed limit. Moreover, raising the maximum limit of government sector's fund to be deposited into PCBs from 25 percent to 50 percent with certain conditions on lending[33] played a crucial role in reallocating a portion of government deposits from SCBs to PCBs and also increasing the investible funds of PCBs. The stated reallocation of deposits led to a decline in the fund position of the SCBs. Consequently, the ADR of SCBs increased to 61.9 percent in CY19 from 58.1 percent in CY18. However, as observed from Chart 2.56, the number of banks with ADR above 85 percent declined to 9 (nine) in CY19 from 18 (eighteen) in CY18 indicating an improved liquidity position in the banking sector. Moreover, all the banking clusters as well as the banking industry as a whole maintained liquidity coverage ratio (LCR[34]) and net stable funding ratio (NSFR[35]) above the regulatory requirement[36] throughout the CY19 (Chart 2.57 and 2.58). The industry average of LCR increased from 173.3 percent at end-December 2018 to 200.5 percent at end-December 2019. SCBs maintained the LCR of 396.4 percent on average throughout the CY19. On the other hand, banking industry's NSFR increased from 109.4 percent at end-December 2018 to 111.2 percent at end-December 2019. Pertinently, PCBs' LCR increased from 124.2 percent to 157.2 percent while NSFR rose from 110.1 percent to112.9 percent during the review period.

CHART 2.57: BANKS' CLUSTER-WISE MONTHLY LCR

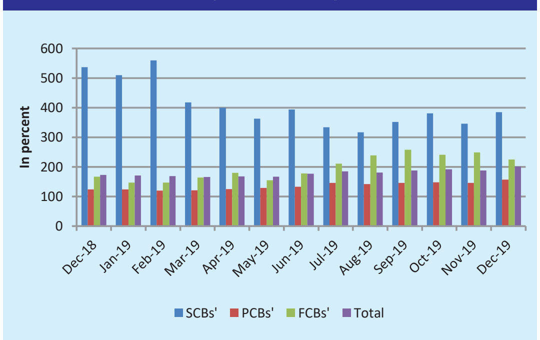
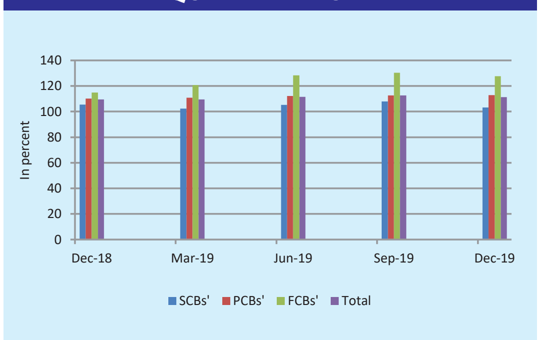


CHART 2.58: BANKS' CLUSTER-WISE QUARTERLY NSFR



Source: *DOS, BB.*

33 BRPD circular letter no. 08, dated 23 May 2019.

34 LCR measures a bank's need for liquid assets in a stressed environment over the next 30 calendar days.

35 NSFR measures a bank's need for liquid assets in a stressed environment over one year period.

36 Minimum requirement: 100 percent for LCR; greater than 100 percent for NSFR.

Besides, both conventional and Islamic Shari'ah based banks were able to maintain the minimum Cash Reserve Ratio (CRR) of 5.5 percent as of end-December 2019. Also, both types of banks were compliant in fulfilling the Statutory Liquidity Ratio (SLR) of 13.0 percent and 5.5 percent respectively.

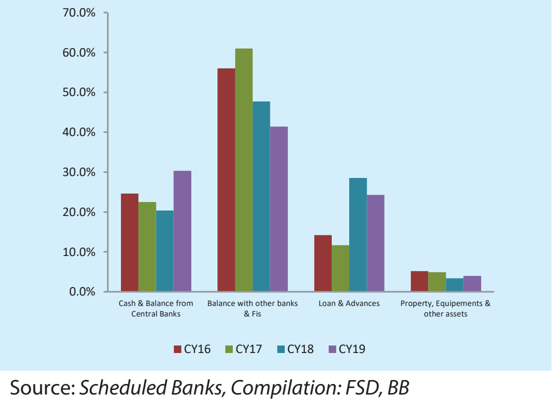
2.12 PERFORMANCE OF OVERSEAS BANK BRANCHES

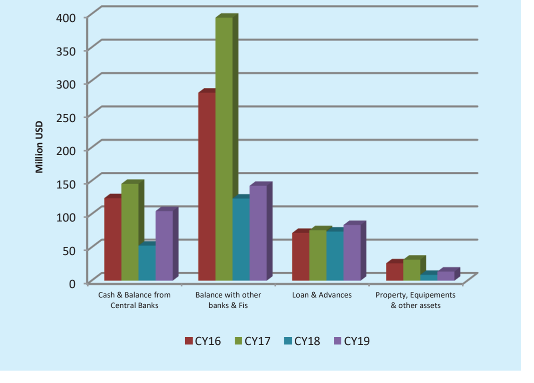
Bangladeshi Banks operating abroad through overseas branches and subsidiaries achieved moderate growth in CY 19. Banks through establishment of 07 overseas branches, 09 representative offices, 41 exchange houses and 12 other offices in various jurisdictions provided their services around the world covering major financial centers spreading over 20 countries during the reporting year.

Among the seven overseas bank branches, one SCB with its four branches has been operating in the United Arab Emirates (UAE). Another SCB with its two branches and one PCB with a single branch have been operating in India. These overseas branches are focusing mostly on facilitating businesses and wage-earners' remittances. They also collect deposits and provide lending along with other banking services e.g., funds transfer, buying or selling foreign exchange, investment in securities and ancillary services. The Exchange houses and other subsidiary companies are permitted by BB to serve the Bangladeshi migrant workers having account with any bank in Bangladesh to repatriate remittances. Moreover, these institutions are significantly contributing in providing trade benefits to Bangladeshi importers and exporters and also non-resident Bangladeshis (NRBs).

2.12.1 ASSETS STRUCTURE OF OVERSEAS BRANCHES

CHART 2.59: ASSETS COMPOSITION OF BANGLADESHI BANKS IN ABROAD (IN TERMS OF PERCENT AND AMOUNT IN USD)





Source: *Scheduled Banks, Compilation: FSD, BB*

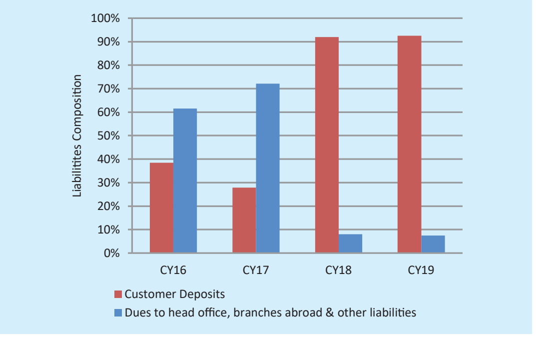
In 2019, the total assets derived from overseas branches of Bangladeshi banks grew significantly mostly attributable to growth in balance with central banks and other banks & FIs outside Bangladesh.

The total assets of overseas branches of Bangladeshi banks constituted less than 0.2 percent of the total banking industry's assets amounting to USD 344.4 million at end-December 2019 which was USD 258.5 million at end-December 2018. Cash and balance with central banks as well as balance with other banks and FIs increased by USD 51.9 million and USD 19.2 million respectively which contributed to this upward movement in asset size. Loans and advances increased by 13.4 percent in the same period which also contributed to this accumulation of assets.

2.12.2 LIABILITIES STRUCTURE OF OVERSEAS BANK BRANCHES

In 2019, the total liabilities of the overseas bank branches increased by 39.4 percent in comparison with 2018.

CHART 2.60: LIABILITIES COMPOSITION OF BANGLADESHI BANKS IN ABROAD (IN TERMS OF PERCENT)



Source: *Scheduled banks, Compilation: FSD, BB*

The volume of deposits increased by USD 77.8 million in CY19, which constituted 92.6 percent of the total liabilities (except equity) of overseas branches of Bangladeshi banks. The remaining 7.4 percent of the liabilities comprised of balance due to head office & branches abroad, payables, loan loss & tax provision along with other liabilities.

However, the share of liabilities of overseas bank branches are still trivial compared to the total banking sector liabilities, amounting 0.26 percent of the aggregate liabilities.

2.12.3 PROFITABILITY OF OVERSEAS BRANCHES

The aggregate net profit of the overseas branches increased by 27 percent in CY19 compared to the same in CY18.

The aggregate amount of net profit from the overseas branches[37] of Bangladeshi banks during CY19 was USD 9.2 million, USD 2.0 million higher than that of CY18. The ROA of overseas bank branches increased to 2.7 percent in CY19 compared to 1.02 percent in CY18. The six overseas branches of two SCBs contributed to 86.0 percent of the total overseas profit, whereas the only branch of a PCB contributed 14.0 percent of the total overseas profit.

2.12.4 RISKS FROM OVERSEAS BANKING OPERATION

Sound financial health of the overseas branches of Bangladeshi banks and adequate liquidity indicate no near term risks. However, monitoring is required so that both host and home country regulations are duly complied.

Operation of overseas bank branches is generally exposed to various risks including non-compliance to laws and regulations of host countries and changing macro-financial conditions of those countries. Any materialization of such risks can put significant stress on overseas branches' financial positions including their parent banks. However, as of December 2019, the overall financial health and banking activities of overseas branches were not sizeable enough to create any systemic risks on the accounts of their parent banks in Bangladesh.

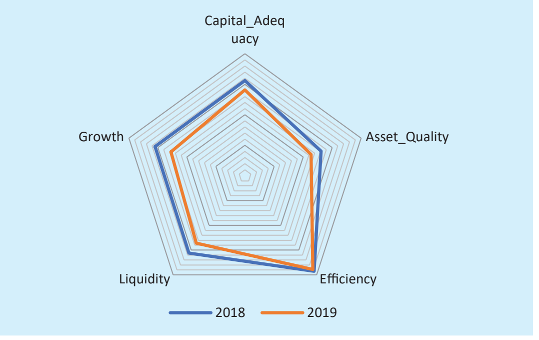
2.13 ISLAMIC BANKING

A total of 8 (eight) full-fledged Islamic banks with 1273 branches were operating in the banking sector of Bangladesh as of end-December, 2019. Besides, nine conventional banks with 19 Islamic banking branches and eight conventional banks with 88 Islamic banking windows were providing Islamic banking services. The Islamic Shari'ah based banks have been contributing to the financial system of Bangladesh successfully for the last three decades with the idea of "equity-based and interest-free" banking, not as a separate component but as an alternative to the conventional banking.

Islamic banking opened a new era of banking in the country's money market and attained strong growth due to enhancing market demand since its inception in 1983. Their market share has been increasing day by day. They have introduced various banking products and services and thus contributed to financing key sectors of Bangladesh's economy.

37 Balances denominated in foreign currencies is translated into USD and recorded at the exchange rate as on 31 December 2019 from the January 2020 issue of Monthly Economic Trend, Bangladesh Bank.

CHART 2.61: PERFORMANCE MAP OF ISLAMIC BANKING END-DECEMBER 2019



Note: Away from the center signifies increase in risk.

Excluding Islamic banking branches/windows of conventional banks.

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

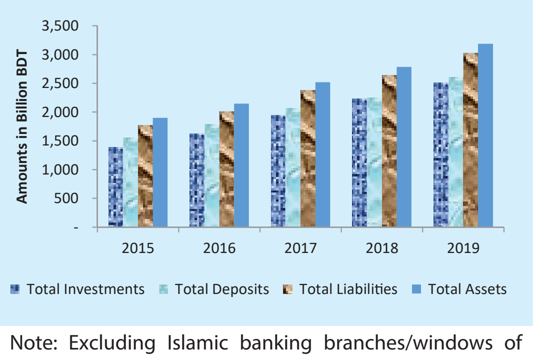
Chart 2.61 shows the overall performance of Islamic Banks in terms of capital adequacy, assets quality, efficiency, and liquidity and growth parameters. The performance of Islamic Banks in CY19 slightly improved compared to CY18. The growth in assets was driven mainly by an increase in investments (loans and advances) which was mainly supported by an increase in deposits especially the term deposits. Such growth in investments not only propelled the improvement in asset quality, but also capital adequacy and other efficiency parameters. Progress in liquidity coverage ratio and net stable funding ratio also indicates the improvement in liquidity scenario of Islamic banks despite the increase in its Investment to Deposits Ratio (IDR).

2.13.1 GROWTH OF ISLAMIC BANKING

Islamic banks experienced a steady growth in terms of assets, liabilities, deposits, investments (loans and advances)[38], profit and shareholders' equity in CY19 compared to the previous year. The growth of the investments of Islamic banks was also mostly matched with the deposit growth in CY 19.

The trends in Islamic banking growth are presented in terms of total investments (loans and advances), total deposit, total liabilities, total assets, net profit, and shareholders' equity in the Charts 2.62 and 2.63.

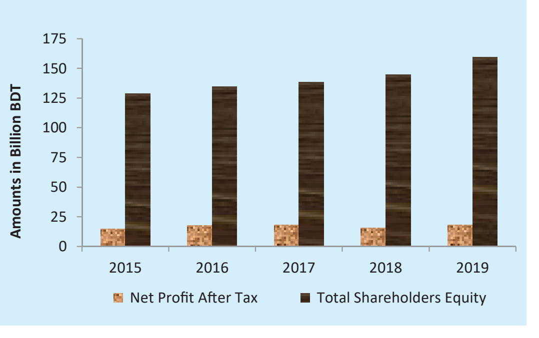
CHART 2.62: GROWTH OF ISLAMIC BANKING AT END-DECEMBER 2019



Note: Excluding Islamic banking branches/windows of conventional banks

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

CHART 2.63: GROWTH OF ISLAMIC BANKING AT END-DECEMBER 2019



In CY19, Islamic banks' investments (loans and advances) grew by 12.3 percent (14.6 percent in CY18); deposit increased by 15.9 percent (9.1 percent in CY18); liabilities grew by 14.8 percent (10.9 percent in CY18), net profit rose by 17.3 percent (15.0 percent in CY18), shareholders' equity increased by 10.1 percent (4.5 percent in CY18) and the overall assets increased by 14.5 percent (10.5 percent in CY 18). Compared to the overall banking industry, higher growth was observed in Islamic banks in terms of investments, deposits and total assets.

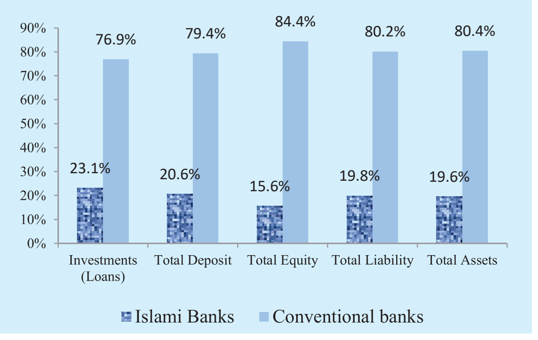
38 According to Islamic Shari'ah based banking loans and advances are termed as investment.

2.13.2 MARKET SHARE OF ISLAMIC BANKS

As of end-December 2009, about one-fifth of the banking sector assets were held by eight Islamic banks.

Chart 2.64 shows the aggregate market share of Islamic banks in terms of total investments, deposits, liabilities, equity, and total assets.

CHART 2.64: MARKET SHARE OF ISLAMIC BANKS AND THE CONVENTIONAL BANKS IN CY19



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

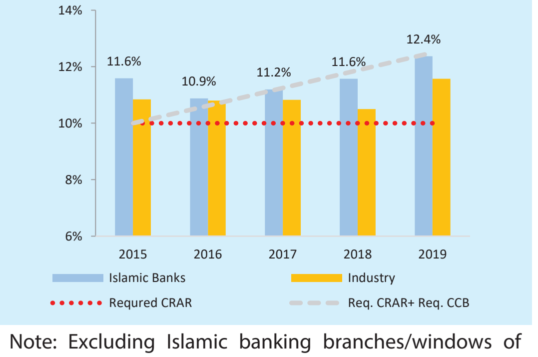
The aggregate market share of Islamic banks in CY19 (excluding Islamic banking branches/ windows of conventional banks) remained almost the same as in CY18. At end-December 2019, Islamic banks possessed 19.6 percent (19.1 percent in CY18) of total assets, 20.6 percent (19.8 percent in CY18) of total deposits and 19.8 percent (19.4 percent in CY18) of total liabilities of the overall banking system; whereas shares of investments (loans and advances) and equity were 23.1 and 15.6 percent respectively in CY19, almost the same as in CY18. The market share of Islamic banks remained unchanged over the years largely due to their balancing the growth in different segments properly.

2.13.3 CAPITAL POSITION OF ISLAMIC BANKS

Under the Basel-III risk-based capital adequacy framework of Bangladesh, the minimum requirement of Capital to Risk-weighted Assets Ratio (CRAR) is 10 percent. At the end of CY19, the aggregate CRAR of the Islamic banks reached 12.4 percent from 11.6 percent in CY18.

Chart 2.65 presents the historical trend of aggregate CRAR of Islamic Banks along with the banking industry from CY16 to CY19. The aggregate ratio has been gradually improving and showing an upward trend.

CHART 2.65: AGGREGATE CRAR OF ISLAMIC BANKS FROM CY15 TO CY19



Note: Excluding Islamic banking branches/windows of conventional bank

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

CHART 2.66: DISTRIBUTION OF ISLAMIC BANKS IN MAINTAINING CRAR FROM CY15 TO CY19

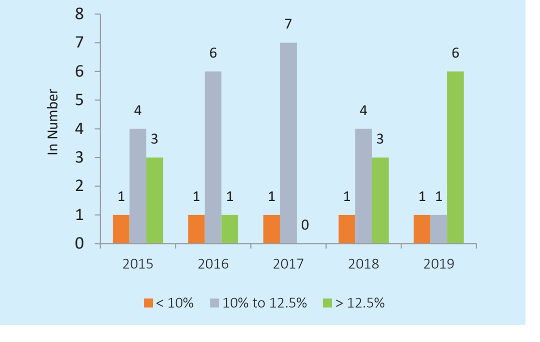
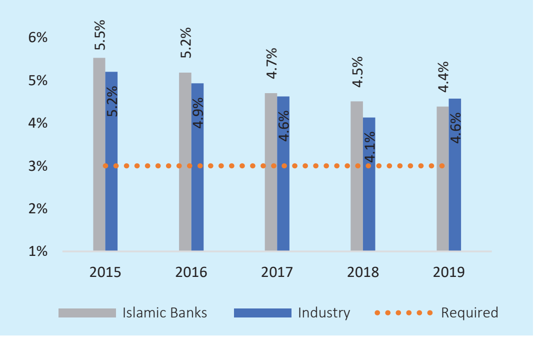


Chart 2.66 shows the number of banks maintained the CRAR in different scales. In CY19, one out of eight Islamic banks had CRAR between 10 to 12.5 percent while six banks had more than 12.5 percent which was also higher than the required regulatory combined ratio of MCR plus CCB of 12.5 percent. However, the CRAR of only one Islamic bank remained below the MCR of 10 percent since 2006 and currently operating under a reconstruction scheme.

Chart 2.67 presents trend of the aggregate leverage ratio of Islamic banks[39]. The leverage ratio of Islamic banks declined marginally to 4.4 percent in CY19 from 4.5 percent in CY18; but it remained over the minimum requirement of 3 percent. However, the number of Islamic banks maintaining the leverage ratio at or above the required level remained the same as in the last two years (Chart 2.68).

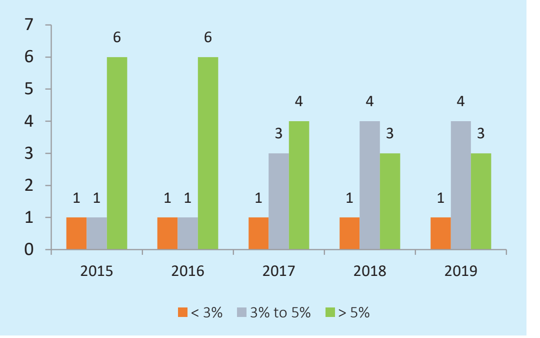
CHART 2.67: AGGREGATE LEVERAGE RATIO OF ISLAMIC BANKS FROM CY15 TO CY19



Note: Excluding Islamic banking branches/windows of conventional bank

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

CHART 2.68: DISTRIBUTION OF ISLAMIC BANKS IN MAINTAINING LEVERAGE RATIO FROM CY15 TO CY19

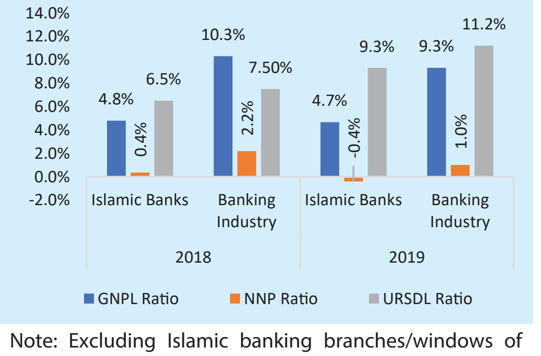


2.13.4 ASSET QUALITY OF ISLAMIC BANKS

Islamic banks showed a better performance compared to the conventional banks in terms of both classified investments to total investments ratio and net classified investments to total investment ratio in CY19. However, the unclassified rescheduled investment to total investments ratio increased slightly in CY19 from the previous year.

Chart 2.69 demonstrates comparison based on classified investments (GNPL), net classified investments (NNPL), and unclassified rescheduled investments (URSDL) from CY18 to CY19 within Islamic banks and between Islamic banks and banking industry. All the three indicators, GNPL ratio, NNPL ratio, and URSDL ratio, showed better performance of Islamic banks as they remained below the industry level in both periods. The GNPL and NNPL ratios of Islamic banks declined in CY19 from the previous period while the URSDL ratio increased during the same period.

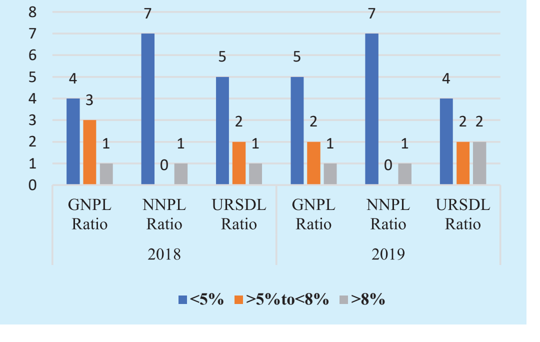
CHART 2.69: CLASSIFIED INVESTMENT, NET CLASSIFIED INVESTMENT AND RESCHEDULED LOAN FROM CY18 TO CY19



Note: Excluding Islamic banking branches/windows of conventional bank

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

CHART 2.70: DISTRIBUTION OF ISLAMIC BANKS BASED ON GNPL, NNPL AND URSDL RATIO FROM CY18 TO CY19



39 The leverage ratio is as important as CRAR since CRAR is a risk-weighted measure and Leverage ratio is a non-risk-weighted measure. The leverage ratio is introduced in Basel III to reduce the built up of excessive leverage which was an underlying cause of great financial crisis. The overall leverage ratio used here to indicate whether the excessive leverage is being built up by Islamic Banks compared to banking industry. The distribution of the ratio is used to show whether the distribution is symmetrical or positive or negatively skewed.

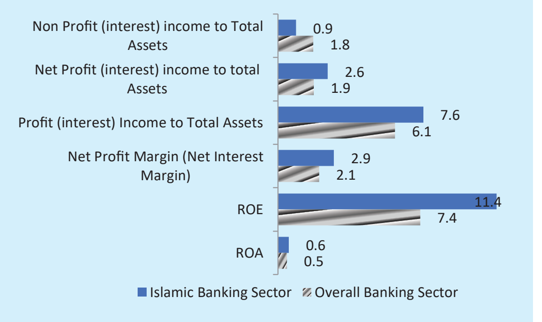
Chart 2.70 shows the distribution of GNPL ratio, NNPL ratio and URSDL ratio of Islamic banks in the last two years. It shows that in CY19, five out of eight banks had GNPL ratio below 5 percent, rest three banks had GNPL ratio of more than 5 percent. In CY18, the number was four in less than 5 percent category and four in more than 5 percent category. For NNPL ratio, seven banks were able to maintain the NNPL ratio below 5 percent in both years. However, the URSDL ratio signifies the minor increase in unclassified rescheduled loans in the loan portfolio of Islamic banks.

2.13.5 PROFITABILITY OF ISLAMIC BANKS

The return on assets (ROA) and return on equity (ROE) of Islamic banks were higher than the industry average due to higher growth in investment (interest) income

The net profit of Islamic banks increased by 17.3 percent in CY19 compared to 15.0 percent in CY18.

CHART 2.71: SELECTED INCOME RATIOS FOR ISLAMIC BANK AND BANKING INDUSTRY



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

During CY19, Islamic banks contributed 23.9 percent of total industry profits. The profit[40] to total assets ratio of Islamic banks reached 7.6 percent, which was higher than that of the industry average (6.1 percent). On the other hand, non-interest income to total assets ratio of Islamic banks was only 0.9 percent as compared with the industry average of 1.8 percent, representing a lower income from off-balance sheet (OBS) transactions, services, and fee-based incomes.

The ROA of Islamic banks was 0.6 percent in CY19 (same in CY18) against the overall banking industry's ROA of 0.5 percent. On the other hand, the ROE of the Islamic banking group stood at 11.4 percent in CY19 (10.7 percent in CY18), which was higher than the overall banking industry's ROE of 7.4 percent, indicating higher profitability of Islamic banks.

2.13.6 ISLAMIC BANKS' LIQUIDITY

In CY19, Islamic banks maintained adequate liquidity to meet up their regulatory requirements of Cash Reserve Ratio (CRR), Statutory Liquidity Requirement (SLR) as well as Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) in line with Basel III standard.

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. In the review year, Islamic banks consistently maintained (on daily basis) CRR and SLR of 5.5 percent[41] and 5.5 percent of their total time and demand liabilities[42] respectively.

According to the roadmap towards the implementation of Basel III, banks are required to maintain Liquidity Coverage Ratio (LCR) of at least 100 percent and Net Stable Funding Ratio (NSFR) higher than 100 percent from January 2015[43]. Chart 2.72 and Chart 2.73 show that Islamic banks were able to maintain above the minimum required level of LCR and NSFR (which are 100 percent for each) throughout the reporting period. Islamic banks maintained an LCR of 167.0 percent, a bit lower than the industry average of 200.5 percent in 2019. While in case of NSFR, Islamic Banks were able to maintain 113.0 percent which is higher than the industry average of 111.2 percent in this reporting year. Both LCR as well as NSFR have improved at end-December 2019 compared to the

40 For Islamic Shari'ah based banks profit income means income (interest) from investments (loans and advances).

41 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).

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

43 Refer to DOS Circular No. 01, dated 01/01/2015.

end-December 2018 (which were 111.4 and 111.6 percent respectively) indicating a better liquidity position of Islamic Banks from the previous year.

CHART 2.72: LCR MAINTAINED BY CONVENTIONAL BANKS AND ISLAMIC BANKS

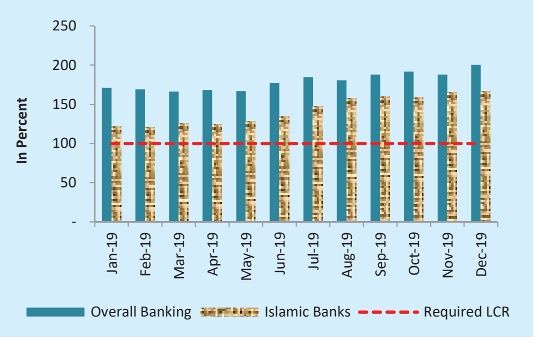
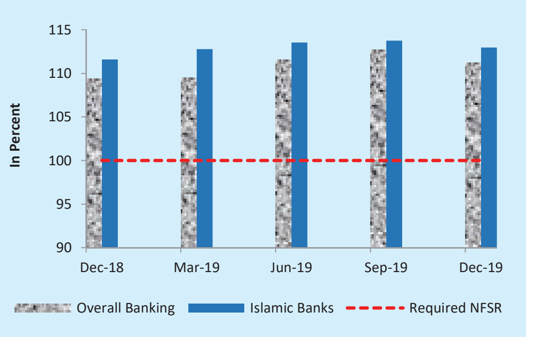


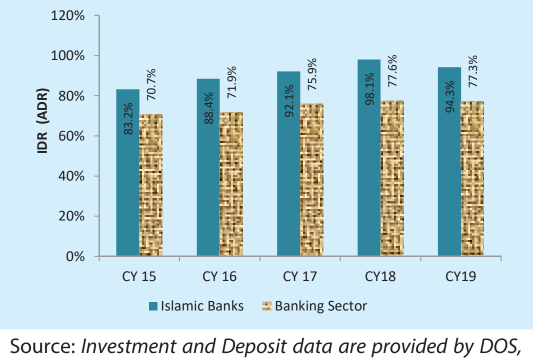
CHART 2.73: NSFR MAINTAINED BY CONVENTIONAL BANKS AND ISLAMIC BANKS



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

The aggregate Investment-Deposit Ratio (IDR) of Islamic banks was 94.3 percent at end-December 2019 against the permissible level of 90 percent, which was 98.1 percent at end-December 2018.

CHART 2.74: IDR (ADR) OF ISLAMIC BANKING* AND THE OVERALL BANKING SECTOR FROM CY15 TO CY19



Source: *Investment and Deposit data are provided by DOS, BB; computation of IDR by FSD, BB.*

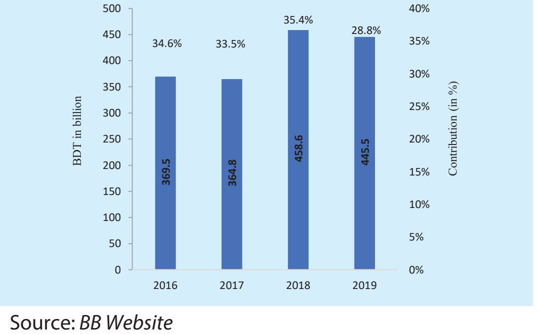
* Islamic banking (excluding Islamic branch & Windows of conventional banks)

Chart 2.74 demonstrates that the IDR of the Islamic banks was 94.3 percent, which was higher than that of the overall banking industry. Islamic banks are allowed to accommodate more investment than conventional banks as they have the advantage to maintain the lower amount in terms of SLR. However, Islamic banks' IDR was higher in CY19 needs to be monitored intensively.

2.13.7 REMITTANCE MOBILIZATION BY THE ISLAMIC BANKS

The Islamic banks in Bangladesh collected and mobilized 28.8 percent of the total wage earners' remittance during CY19.

CHART 2.75: SHARE OF REMITTANCES COLLECTED BY THE ISLAMIC BANKS IN CY19



Source: *BB Website*

Like conventional banks, Islamic banks also play an important role in channeling foreign remittance to the local beneficiaries across the country. In CY19, the total inward foreign remittance was BDT 1,547.2 billion, of which BDT 445.5 billion was collected and distributed by the Islamic banks. Though, during the period, the total remittances collected and distributed by banking sector increased by 19.4 percent, Islamic banks, however, faced negative growth of 2.9 percent in this regard. Despite the decrease in remittance collection, the Islamic banks contributed 28.8 percent of the foreign remittances collected by the entire banking industry (Chart 2.75).

2.14 PERFORMANCE OF NEW BANKS

As of end-December 2019, the market share of 11 new banks, with respect to total banking industry assets, reached 4.8 percent. Loans and advances constituted 71.7 percent assets of these banks. The Gross NPL ratio increased from 8.3 percent in CY18 to 9.5 percent during the review year.

A total of 11 new private banks entered into the banking system during 2013-19. Out of those, one (01) is offering Shari'ah-based banking and the other ten (10) are providing conventional banking services. At end-December 2019, the aggregate assets of these banks accounted for 4.8 percent of the total banking industry assets while the same was 4.3 percent at end-December 2018. The share of loans and advances of the new banks rose to 5.1 percent of the overall industry's loans and advances at end-December 2019 which was 4.9 percent at the end of the preceding year. Loans and advances constituted the largest proportion of assets of these banks and the proportion was much higher than the banking industry as a whole. At end-December 2019, loans and advances constituted 71.7 percent of the total assets of these banks, which was 75.4 percent at end-December 2018. This ratio was 66.5 percent for the overall banking industry in 2019.

These new banks opened 519 branches across the country including 259 rural branches till December 2019, whereas they had 495 branches including 241 rural branches till December 2018. Considering the number of bank branches under operation, the new banks grabbed 4.9 percent (519 out of 10,578) of the banking industry at end-December 2019. This ratio was 4.8 percent (495 out of 10,286) at end-December 2018.

The quality of assets of these banks at end-December 2019 appeared to be vulnerable as their gross NPL ratio was higher (9.5 percent) compared to the industry NPL ratio of 9.3 percent. The gross NPL ratios of these banks and the banking industry as a whole were 8.3 percent and 10.3 percent respectively at end-December 2018. It is noteworthy that NPL ratio for new banks as a whole appeared to be higher which is attributable to large amount of NPL accumulated by one new bank. Therefore, intensive monitoring by BB is required to keep the NPL of these banks within the desired level for ensuring their smooth functioning.

All the new banks have successfully maintained the required provisions at end-December 2019. The ratio of provision maintained by the new banks to their required provision was 100.3 percent whereas the same for the industry was 89.1 percent as at end-December 2019.

CHART 2.76: COMPARISON OF ROA AND ROE IN CY19

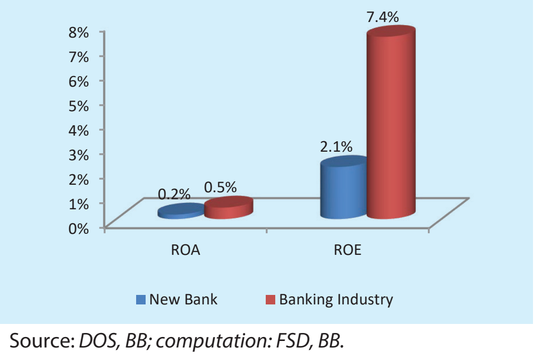
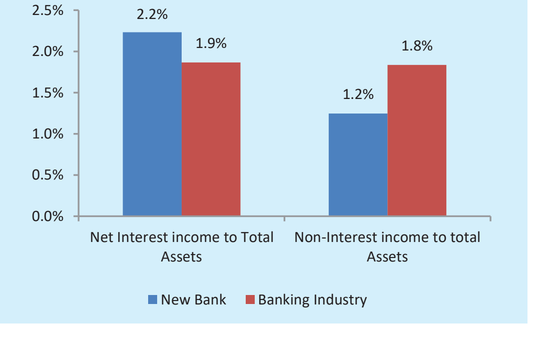


CHART 2.77: COMPARISON BY SOURCES OF INCOME IN CY19



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

It appears from Charts 2.76 that the ROA of the new banks (0.2 percent) was lower than that of the banking industry (0.5 percent) in CY19. Except for one bank, the profitability trend of new banks was in a good condition. However, profitability of the new banks fell below the industry average due to offsetting of a significant amount of profit by the net loss of one new bank. The ROE of new banks decreased from 6.6 percent in CY18 to 2.1 percent in CY19, which was also lower than the industry ROE of 7.4 percent. The net interest income to total assets of the new banks was higher whereas non-interest income to total assets was lower than the industry average (Chart 2.77).

CHART 2.78: CRAR OF NEW BANKS

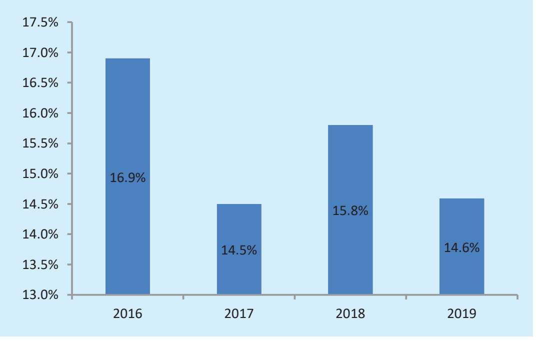
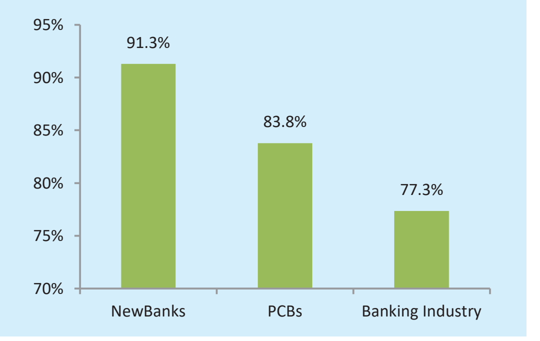


CHART 2.79: ADVANCE TO DEPOSIT RATIO



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

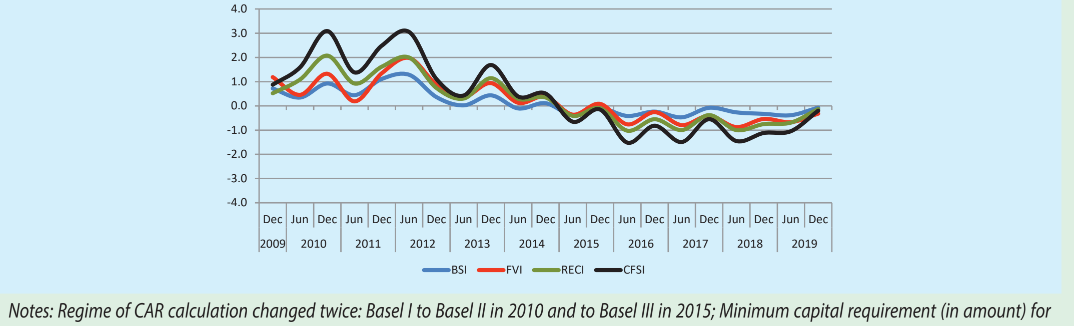
The capital to risk-weighted assets ratio (CRAR) of these banks was higher than the industry CRAR and also higher than that of other categories of banks except foreign banks operating in the industry. It transpires from Chart 2.78 that the CRAR of these banks was14.6 percent in 2019, which was 15.8 percent in 2018. It is to be mentioned here that all the new banks except one have been successful in maintaining the minimum required CRAR.

Chart 2.79 exhibits the advance-deposit ratio (ADR) of the new banks, PCBs and banking industry as a whole. It reveals that the new banks had lower liquidity compared to the private commercial banks' average and the banking industry's average at end-December 2019. The ADR of new banks was 91.3 percent which was significantly higher than that of PCBs (83.8 percent) and overall industry average (77.3 percent).

BOX 2.2: COMPOSITE FINANCIAL STABILITY INDEX (CFSI): DECEMBER 2019

Composite financial stability index (CFSI)[44] is a tool to measure the stability of a financial system as well as to monitor any buildup of systemic stress in the system. More specifically, this is a measure of the volatility in the financial system. Excess volatility in a direction for a prolonged period might be an indication of build-up of systemic risk provided that other relevant information is taken into consideration during the analysis. It is a combination of eighteen different indicators under three sub-indices - Banking Soundness Index (BSI), Financial Vulnerability Index (FVI) and Regional Economic Climate Index (RECI)[45]. Using semi-annual data, this index has been updated regularly on half-yearly basis. In this current version, movement of CFSI has been shown for the period ranging from December 2009 up to December 2019[46].

CHART B 2.1.5: COMPOSITE FINANCIAL STABILITY INDEX (CFSI)



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 index shows that the financial system of Bangladesh has been mostly stable during the last few years except some earlier periods of high volatility. Since June 2015, no abrupt volatility was

44 See FSR 2017 (pp. 46-47) for methodology used to prepare CFSI.

45 The list of indicators used in CFSI is provided in annexure.

46 See FSR 2018 (pp. 48-49) for discussions during 2009-2018.

observed in the movement of CFSI and its three sub-indices. After a subdued performance in 2018, the banking sector turned around in 2019 backed by BB's stringent monitoring as well as the strategic measure to restructure stressed loans under a special policy aimed at reducing debt servicing burden of good borrowers. All major indicators of banking sector - asset quality, capital adequacy, profitability and liquidity improved which was reflected in the index as both BSI and CFSI made a prominent upward move in the review year. However, amid the COVID-19 pandemic, probable erosion of debt servicing capacity of the borrowers due to expected sluggish business condition may create stress on the asset quality of the banking sector and thus, rigorous monitoring, especially of recently rescheduled/restructured loans might be critical for maintaining stability of the sector as well as the overall financial system. From the macroeconomic perspective, a strong GDP growth along with tolerable inflation, improving current account balance due to upbeat remittance inflow and sluggish import growth, and drop in crude oil price largely contributed to a stable macroeconomic outlook and thereby pushed up the index towards the zero (mean) line. Though growth in major export partners of Bangladesh witnessed a slowdown in 2019, increase in inflation in major import partners, especially China and India, weighed on the sub-index, RECI and caused it to move up. Overall, the upward movement of CFSI along with its three sub-indices reflects a reasonably realistic picture of the country's macro-financial developments in the review year and implies no excessive volatility during the period. Nevertheless, the downside risk remains as the devastating impacts of COVID-19 outbreak across the globe may pose significant threats to the Bangladesh economy, particularly from the external front. while the government's large-scale stimulus package along with BB's policy support for all the crucial sectors of the economy provides the means to face the upcoming hurdles, proper utilization of the stimulus along with diversification of export basket and repositioning of low-skilled overseas employees vulnerable to job losses into new jobs or markets may remain the key challenges in the near term.

BOX 2.3: MACROPRUDENTIAL POLICY IN BANGLADESH

1. Introduction

Macroprudential policies refer to the policies aimed at maintaining the safety and soundness of the financial system as a whole (IMF 2014)[47]. Prior to the global financial crisis (GFC) 2007-08, authorities mostly used microprudential policies for reducing the risk of failure of individual institutions, without any explicit regard for their impact on the financial system as a whole or on the overall economy. However, the crisis experience reminded the policy makers that financial stability has a macroprudential or systemic dimension that cannot be ignored. Subsequently, supervisory authorities commenced putting emphasis on macroprudential policy as part of maintaining financial system stability. In the context of Bangladesh too, Bangladesh Bank has strengthened its effort to establish a robust macroprudential policy framework. This box discusses macroprudential policy framework and associated tools/measures applied in the financial system of Bangladesh as of end-December 2019[48].

2. Institutional Aspects of Macroprudential Framework

(a) Macroprudential Authority: According to Articles 7A(a) and 7A(b) of Bangladesh Bank Order, 1972 (amended upto 2003) [BBO], Bangladesh Bank (BB) is empowered to formulate and implement monetary policy as well as intervention policies in the foreign exchange market. Besides, according to Article 7A(f) of BBO, BB has the mandate to regulate and supervise banking companies and financial institutions. Moreover, a number of other laws, for example, Bank Company Act 1991 (amended upto 2018) [BCA], Financial Institutions Act 1993 [FIA] also empowered BB to regulate and supervise these two types of institutions. Importantly, BB calibrates various prudential tools from time to time using provisions stipulated in the BBO, BCA and FIA, which sometimes take the form of macroprudential stance. BB attunes these tools taking

47 See International Monetary Fund. (2014, April). Global Financial Stability Report. Washington, DC.

48 See Appendix LI for theoritical aspects of macroprudential policy.

into account economic and financial cycles of the country. Importantly, BB applies hard powers[49] in case of enforcing the macroprudential regulations.

(b) Interagency coordination mechanism: In order to strengthen cooperation and coordination a Memorandum of Understanding (MoU) was signed among the regulatory authorities-BB, Bangladesh Securities and Exchange Commission (BSEC), Insurance Development and Regulatory Authority (IDRA), and Microcredit Regulatory Authority (MRA)[50] on 23 September 2012. Heads of the stated regulatory authorities meet regularly, usually on a quarterly basis, under the Chair of the Governor of BB, to discuss important market developments and to give directions to respective regulatory authorities on cross-cutting issues. Importantly, Bangladesh Telecommunication Regulatory Commission (BTRC), Register of Joint Stock Companies and Firms, and Department of Cooperatives also attend the meeting, even though there is no official MoU signed with them. There is also a Coordination Committee Technical Group (CCTG) for monitoring the day-to-day issues among the stated agencies.

3. Macroprudential tools/measures applied

3.1 Banking sector tools

A. Board-Based Tools

(i) Capital conservation buffer: as announced on 21 December 2014 and effective from 01 January 2015, 0.625 percent requirement for 2016, increased with equal percentage points each year, and 2.5 percent for 2019.

(ii) Countercyclical capital buffer BB has developed its own customized model for the countercyclical capital buffer (CCyB), which was approved in April 2014. The model designed by BB is mostly in line with Basel III guidance. BB has taken into account credit-to-GDP gap as the key reference variable for determining the CCyB rate. However, no positive CCyB rate has been announced yet.

(iii) Limit on leverage ratio: as announced on 21 December 2014 and effective from 01 January 2015, three (3) percent on both solo basis and consolidated basis.

B. Liquidity Tools

I. Liquidity Buffer Requirements

Liquidity coverage ratio (LCR): as announced on and effective from 01 January 2015, the LCR ratio, in line with Basel III, must be no less than 100 percent on a 30-day time horizon; the ratio is not currency differentiated.

II. Stable Funding Requirements

(i) Net Stable Funding Ratio (NSFR): as announced on and effective from 01 January 2015, the NSFR, in line with Basel III framework, must be greater than 100 percent on a one-year time horizon; the ratio is not currency differentiated.

(ii) Advance-to-deposit ratio (ADR): as announced and effective from 17 September 2019, 85 percent for conventional banks and 90 percent for Islamic Shari'ah banks; ADR is not currency differentiated.

(iii) Limits on maturity mismatches: effective from 03 April 2018, 18.5 percent upper limit on maturity mismatches for cash outflow in one-month time bucket.

(iv) Other measures: For a primary dealer bank, wholesale borrowing should not exceed 100 percent of eligible capital; for the other banks, the limit should not exceed 80 percent of

49 Hard (or direct) powers refers to the powers that give the policymaker (macroprudential authority) direct control over macroprudential instruments.

50 This is a coordination body and it does not have any hard power to issue macroprudential regulations.

eligible capital. On the other hand, the highest acceptable limit for commitments is the lowest amount of the following three benchmarks: (a) 50 percent of total assets; (b) 500 percent of total eligible capital; (c) 250 percent of High-Quality Liquid Assets (HQLA).

III. Reserve requirements for macroprudential purposes

(i) Cash Reserve Ratio (CRR): As announced on 03 April 2018 and effective from 15 April 2018, minimum CRR is 5.5 percent on a bi-weekly average basis and 5.0 percent on a daily basis.

(iii) Statutory Liquidity Ratio (SLR): As announced on 10 December 2013 and effective from 01 February 2014, minimum required SLR is 13.0 percent for conventional bank and 5.5 percent for Islamic Shari'ah banks.

IV. Limits on foreign exchange positions

(a) Net foreign exchange positions: as announced on and effective from 28 July 2016, cap for net foreign exchange position is 20 percent of the total eligible capitals, which is comprised of the sum of Tier 1 eligible capital and Tier 2 eligible capital.

(b) Foreign exchange swaps or derivative positions: The Authorized Dealers of Foreign Exchange (ADs) may undertake swap transactions in line with their counterparty limit in accordance with the core risk management guidelines issued by Bangladesh Bank to cover their risks arising from forward transactions and manage cash flow mismatch arising out of day to day transactions. However, they are advised to refrain from taking speculative positions through swap transactions.

(c) Constraints on foreign exchange funding: The ADs may obtain short term loans and overdrafts for a period not exceeding seven days at a time from overseas branches and correspondents at the going market rates to meet their short-term needs. If these loans or overdrafts require collateral in Bangladesh or abroad prior approval must be obtained from BB. Short term loans and overdrafts taken under the authority of this para may be remitted by the ADs without prior approval of BB, but subject to report.

Usance export bills related to direct and deemed exportation of Bangladeshi products may be discounted in foreign exchange by an exporter's AD with funds received from foreign banking units and correspondent banks and financial institutions and from international financial organizations; however, the overall cost may not exceed 6-month LIBOR + 3.5 percent a year.

ADs may use up to 50 percent of non-resident foreign currency deposit (NFCD) balances (i) for loans to exporters for settlement of back-to-back sight LCs for imports of inputs and (ii) to discount usage bills of wholly foreign-owned (type A) and joint-venture (type B) EPZ units against inputs to exporters.

3.2 Household Sector Tools

1. **Cap on credit growth to the household sector:** As announced on and effective from 25 April 2012, growth rate in total loans under "Consumer Financing" must not exceed the growth rate of the bank's total loans.

2. **Loan restrictions or Borrower eligibility criteria:**

   i) Cap on loan-to-value ratio: maximum debt-to-equity ratio for housing finance facility is 70:30; the maximum debt-to-equity ratio for auto loans is 50:50; the maximum debt-to-equity ratio for all other consumer financing is 30:70.

   ii) **Cap on debt-service-to-income ratio/debt burden ratio:** as announced on and effective from 03 November 2004, for auto loans 33 percent at all times; for consumer durables/professional loans 33 percent of net income; and for unsecured personal loans 35 percent based on net monthly income.

iii) **Limit on amortization periods:** as announced on and effective from 16 June 2010, maximum tenure of the house loan is 25 years; as announced on and effective from 03 November 2004, the maximum tenure of auto loan is 5 years; as announced on and effective from 03 November 2004, maximum 36 months tenure for consumer durables loan; as announced on and effective from 03 November 2004, maximum 48 months tenure for professional loans and 36 months for unsecured personal loan.

iv) **Restrictions on unsecured loans:** as announced on and effective from 03 April 2017, unsecured loan per person shall not exceed BDT 0.5 million; maximum unsecured limit under credit card to a borrower (supplementary cards shall be considered part of the principal borrower) shall not exceed BDT 1 million).

v) **Other:** maximum per party limit in respect of housing finance by the banks will be BDT 20 million.

3.3 Corporate Sector Tools

Corporate sector capital requirement: Effective from 01 January 2011, banks' exposures to the corporate sector are subject to the following risk weights while calculating regulatory capital against corporate exposures:

	BB's Rating Grade	Risk Weight (%)
Claims on corporate (excluding equity exposure)	1	20
	2	50
	3,4	100
	5,6	150
	Unrated	125

3.4 Tools to Address Risks from Systemically Important Institutions and Interconnectedness within the Financial System

Capital surcharges for systemically important institutions: BB implemented a special supervision mechanism for domestic systemically important banks (D-SIBs) that was approved in December 2014. Currently, the capital surcharge is set at zero; however, BB is continuously monitoring the D-SIBs and implementing indirect measures in this regard.

3.5 Tools to address other sources of systemic risks

(a) Measures to mitigate risks from financial institutions' exposures to sovereigns: A risk weight of zero (0) percent is set against claims on Bangladesh Government and BB. For the purpose of risk weighting claims on other Sovereigns and Central Banks, banks may use the rating and risk weight as recognized by their home supervisors (if any) or risk-scores published by the consensus risk scores of export credit agencies (ECAs) participating in the Arrangement on Officially Supported Export Credits.

(b) Central Database for Large Credit (CDLC): BB has commenced developing a CDLC and a corporate watch list to monitor the large exposure of banks and financial institutions (FIs) in a more structured way with the ultimate objective of addressing systemic risks generated from concentration and default of nonfinancial corporations (NFCs).

(c) Bangladesh Systemic Risk Dashboard (BSRD): This is a semi-annual publication of BB 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, inter-linkages, and structural risk.

Chapter 3

BANKING SECTOR RISKS

With the notable expansion of the banking sector of Bangladesh over the last few years, banks are now more inclined to adopt sophisticated technological infrastructure, and diversification of products and services. This compels the banks to strengthen their internal risk management practices and capabilities. In 2019, the overall risk of the banking sector, measured by Risk Weighted Asset (RWA) Density ratio, demonstrated a downward trend reflecting the banking industry's willingness to redirect its position towards less risk-taking activities. The banks were able to mitigate certain amount of credit risk by increasing their rated exposures. Banks were also more efficient in reducing the market risk by 12.7 percent in 2019. Credit risk weighted assets increased by 7.6 percent against the total asset growth of 11.8 percent. Operational risk is the area that needs meticulous attention as RWA for operational risks showed an increase of 11.2 percent from the previous year. The banking sector maintained capital to risk-weighted asset ratio (CRAR) of 11.6 percent (required level 10 percent) at end-December 2019, which indicates the sector's ability to withstand any insolvency risk in future.

Various risk aspects relating to the assets and capital of the banking sector in Bangladesh are discussed in this chapter. For better analysis and understanding, banks are categorized into five different groups based on their inherent features, and risk perspectives in terms of credit, market and operational risks. Table 3.1 demonstrates the categorization of banks and share in total banking sector assets as of December 2019.

TABLE 3.1: GROUPING OF BANKS FOR RISK ANALYSIS

Bank Group	Description of the group	Number of banks	Share in total banking sector assets (in percent)
Group 1	Private commercial banks (Long-standing conventional banks)	22	44.36
Group 2	State-owned and Private commercial banks under special attention[51]	10	26.99
Group 3	Private commercial banks (Full-fledged Islamic banks)	7	19.51
Group 4	Foreign commercial banks	9	5.51
Group 5	Fourth-generation[52] private commercial banks	9	3.63

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

3.1 OVERALL RISK PROFILE OF THE BANKING SECTOR

Table 3.2 and Chart 3.1 show the trend in risk-weighted assets (RWA) density ratio, the ratio of RWA to total assets, of different groups of banks during the period 2015-2019.[53] It is mentionable that the higher density ratio reflects that banks are exposed towards more risky assets. The industry RWA density ratio has decreased from 67.0 in 2018 to 64.3 in 2019. Among the specified groups, Group 1, 4 and 5 have higher RWA density. The ratio increased for Group 2 and Group 4 while it decreased for rest of the groups in 2019. The RWA density ratio of Group 2 (i.e., SCBs) was on an increasing trend. Nevertheless, while comparing with the overall industry figure, the ratio is substantially lower for SCBs as they are proportionately more engaged with the less risky investments (e.g., Govt. bonds, call market investment etc.) rather than loans and advances.

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

52 Banks granted license in 2013 onward to operate as scheduled banks in Bangladesh (except one Islamic bank that is included in group 3 and one newly established bank was excluded from the analysis due to data constraint).

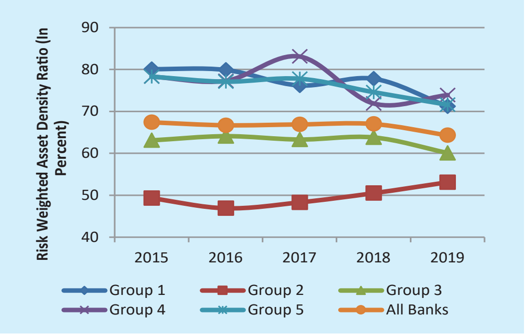
53 the RWA density ratio is a simple and quick measure of weighted average relative risk of a bank's on- and off-balance sheet exposures. However, there are some criticisms of this ratio for its significant divergences across banks and jurisdictions due to the inconsistency of risk measurement methodologies 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.

TABLE 3.2: RISK-WEIGHTED ASSET DENSITY RATIO (BANK GROUPS)

Banks Group	2015	2016	2017	2018	2019
Group 1	80.1	79.9	76.2	77.8	71.2
Group 2	49.3	46.9	48.3	50.5	53.1
Group 3	63.1	64.1	63.3	63.8	60.1
Group 4	78.3	77.3	83.1	71.9	73.9
Group 5	78.3	77.1	77.8	74.6	71.6
All Banks	67.4	66.7	66.9	67.0	64.3

Source: *Data-DOS; Calculation-FSD.*

CHART 3.1: TRENDS OF RISK-WEIGHTED ASSET DENSITY RATIO

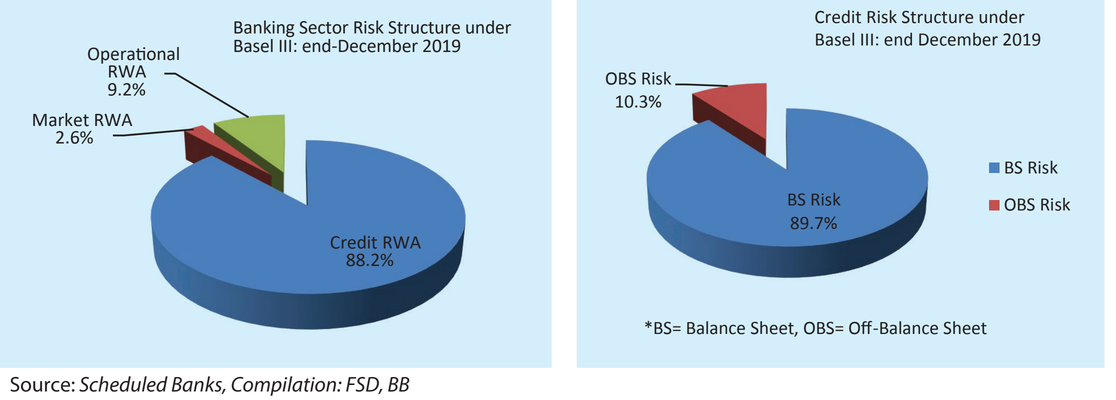


3.2 OVERALL RISK STRUCTURE IN BANKS

As per BASEL III, banks' RWAs are broadly attributed to credit, operational and market risks.[54] Credit Risk-Weighted Assets (CRWA) amounts to BDT 9,238.0 billion in 2019, which is 7.6 percent higher than that in 2018. Operational Risk-Weighted Assets (ORWA) also increased from BDT 859.9 billion to BDT 956.5 billion, i.e., by 11.2 percent during this period. However, Market Risk-Weighted Assets (MRWA) declined by 12.7 percent and stood at BDT 275.1 billion in 2019. The CRAR of the banking industry also increased from 10.5 percent at end-December 2018 to 11.6 percent at end-December 2019, which was above the minimum capital requirement (MCR) of 10.0 percent and well managed against growing trend of RWA.

Chart 3.2 shows the share of RWA attributed to credit, operational and market risks. The credit risk was 88.2 percent of the total RWA of the banking system as of December 2019, whereas the RWA associated with market and operational risks were 2.6 and 9.2 percent respectively. The chart also shows that 89.7 percent of the credit risk was derived from balance sheet exposures. In 2019, RWA for credit risk and operational risk as a ratio of total RWA increased by 0.27 and 0.33 percentage point respectively while the market risk decreased by 0.60 percentage point as compared to the previous year.

CHART 3.2: OVERALL RISK AND CREDIT RISK STRUCTURE



Source: *Scheduled Banks, Compilation: FSD, BB*

54 Credit risk can be defined as the probability of loss (due to non-recovery) emanating from the credit extended, as a result of the non-fulfillment of contractual obligations arising from unwillingness or inability of the counter-party or for any other reason.
Market risk can be defined as the risk of loss in on-and off-balance sheet positions arising from movements in market prices.
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.

3.3 CREDIT RISK STRUCTURE IN BANKS

In 2019, credit risk of the top 5 banks accounted for 25.0 percent of the total credit risk of the banking system, while about 40 percent of credit risk was held by the top 10 banks (Table 3.3). The concentration of credit risk within top 5 banks increased by 1.4 percentage points while share of credit risk within overall industry risk increased to 22 percent from 20.8 percent in 2018.

TABLE 3.3: CREDIT RISK UNDER BASEL III IN THE BANKING INDUSTRY

(As of End-December 2019)

Banks	Share in industry credit risk	Share in industry overall risk
Top 5	25.0%	22.0%
Top 10	40.0%	35.3%
All banks	100.0%	88.2%

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

The group-wise analysis of credit risk (Table 3.4) reveals that industry credit risk is mostly concentrated in Group 1 and Group 2. The combined shares of these two groups are 71 percent of industry credit risk and 62.7 percent of aggregate industry risk. Group 1 (22 banks), possessing 44.4 percent of total assets, contained about half of the industry credit risk (49.3 percent) and 43.5 percent of overall industry risk. Group 2 (10 banks), on the other hands, possessed 27.0 percent of the assets but contained about one-fifth of the industry credit risk (21.7 percent) and 19.2 percent of the overall industry risk. Full-fledged Islamic banks, foreign commercial banks and fourth-generation domestic private banks respectively shared 18.7, 6.2, and 4.0 percent in industry credit risk.

TABLE 3.4: GROUP-WISE DISSECTION OF CREDIT RISK IN THE BANKING SYSTEM

(As of End-December 2019)

Bank Group	Share in industry credit risk	Share of credit risk in overall industry risk	Share of total RWA in overall industry risk[55]
Group 1	49.3%	43.5%	49.1%
Group 2	21.7%	19.2%	22.3%
Group 3	18.7%	16.5%	18.2%
Group 4	6.2%	5.5%	6.3%
Group 5	4.1%	3.6%	4.0%
Total	100.0%	88.2%	100.0%

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

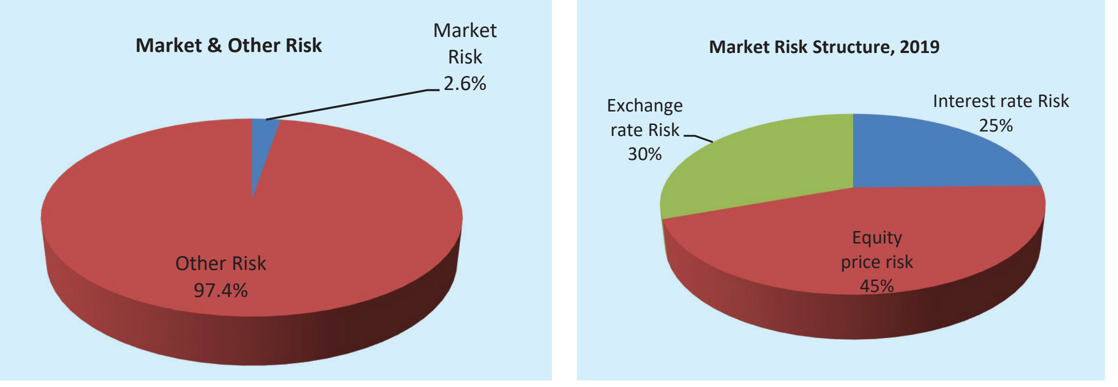
3.4 MARKET RISK STRUCTURE IN BANKS

Under Basel III, market risks are mainly attributed to the risks pertaining to interest rate and price sensitive instruments and equities in the trading book, foreign exchange risk and commodities risk in both the trading and banking book. Market risks, therefore, comprise of interest rate, equity price, and exchange rate risk.

Chart 3.3 illustrates the composition of different market risks in banks. Market risk has a very small effect of 2.6 percent of the total banking sector's risks. Notably, this risk has decreased from 2018 both in terms of its share in total banking sector's risk (3.2 percent) and also in risk weighted assets' amount (12.2 percent). Within market risk, share of Equity Price Risk was maximum, i.e., 45 percent while Foreign Exchange Rate Risk and Interest Rate Risk contribute 30 percent and 25 percent respectively.

55 Total risk includes credit risk, market risk and operational risk.

CHART 3.3: MARKET RISK COMPOSITION



Source: *Scheduled Banks, Compilation: FSD, BB*

Table 3.5 demonstrates that Group 1 (with 22 banks) and Group 2 (with 10 banks) were jointly exposed to 82.2 percent of the total interest rate risk in the segment of market risk in 2019 which reflects a descent improvement from 90.7 percent in 2018. The equity price risk of these two groups stood at 86.7 percent in 2019 as compared to 87.7 percent in 2018. Private commercial banks and the state-owned banks possess 71.4 percent of industry assets and are more inclined to the interest-rate related instruments and capital market investments of the banking system and gradually they are showing improvement in these risk management activities. Moreover, the banks under Group 1 and Group 2 possess 58.8 percent of the industry's total foreign exchange rate risks- a notable changes from 72.4 percent in the previous year. However, the Group 3, consisting of all the Islamic banks, possessed 23.9 percent of the exchange rate risks in 2019, which was 19.2 percent in 2018.

TABLE 3.5: GROUP WISE DISSECTION OF MARKET RISK IN THE BANKING SYSTEM

Banks	Share in industry interest rate risk	Share in industry equity price risk	Share in industry Exchange rate risk
Group 1	39.34%	55.53%	39.65%
Group 2	42.86%	31.19%	19.18%
Group 3	0.00%	9.85%	23.86%
Group 4	4.45%	0.00%	11.98%
Group 5	13.35%	3.43%	5.33%
Total	100.00%	100.00%	100.00%

Source: *Data-DOS; Calculation-FSD.*

The banks under Group 4 and Group 5 consisting of nine foreign banks and nine fourth-generation commercial banks respectively (combined industry share of which are less than 10 percent in terms of assets) were found to be less exposed to market risk in the banking system. Yet, the foreign banks are moderately exposed to exchange rate risks of 12.0 percent while the fourth-generation banks had interest rate risk of 13.3 percent in 2019.

3.4.1 INTEREST RATE RISK (IRR)[56]

The share of interest rate risk (IRR) in the total RWA of the banking system decreased slightly from 0.8 percent in 2018 to 0.6 percent in 2019. The nominal value of the RWA for interest rate risk also decreased by 8.5 percent from the previous year. However, IRR contributed 24.7 percent of the market RWA in 2019, which was 23.5 percent in the previous year. The banks' capital charge for interest rate risk was BDT 6.8 billion in 2019 which was BDT 7.4 billion in 2018, reflecting improvement in terms of interest rate risk management of the banking system.

56 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.

Table 3.6 shows that the top 5 banks contained 61.5 percent of industry interest rate risk in 2019. Three SCBs, one conventional PCB and one Fourth-generation PCB were ranked in the top 5 in terms of capital charges for IRR in the banking system. With comparison to 2018, Interest Rate RWA to Industry's total RWA for both top 5 banks and top 10 banks were decreased in 2019. The IRR shares for the top 5 banks and top 10 banks in market risk as well as in overall risk were also decreased in 2019.

TABLE 3.6: INTEREST RATE RISK IN THE BANKING SYSTEM

Banks	Interest rate risk	Share in market risk	Share in overall risk
Top 5	61.45%	15.15%	0.40%
Top 10	76.27%	18.80%	0.49%
All Banks	100.00%	24.65%	0.65%

Source: *Data-DOS; Calculation-FSD.*

3.4.2 EQUITY PRICE RISK[57]

The Risk weighted assets (RWA) assigned to equity price risk constituted 1.2 percent of the total RWA of the banking system and 44.8 percent of the total market risk as of December 2019. The banks' capital charge for equity price risk was BDT 12.3 billion at the end of December 2019, which was about BDT 1.4 billion lower than that of the previous year.

TABLE 3.7: EQUITY PRICE RISK IN THE BANKING SYSTEM

Banks	Equity price risk	Share in market risk	Share in overall risk
Top 5	37.29%	16.72%	0.44%
Top 10	62.25%	27.90%	0.73%
All Banks	100.00%	44.82%	1.18%

Source: *Data-DOS; Calculation-FSD.*

Table 3.7 shows that the top 5 banks contained 37.3 percent of industry equity price risk in 2019 originated from the movement of equity prices. Two SCBs and three conventional PCBs were ranked in the top 5 in terms of capital charges for equity price risk in the banking system. With comparison to 2018, the share of equity price RWA to industry's total RWA marginally increased for top 5 banks (from 36.9 percent to 37.3 percent) while it slightly decreased for top 10 banks in 2019 (from 62.7 percent to 62.2 percent). Shares of equity price risk in market risk for the top 5 banks and top 10 banks increased but their shares decreased in overall industry risk in 2019.

3.4.3 EXCHANGE RATE RISK[58]

The RWA assigned to exchange rate risk constituted 0.8 percent of the total RWA of the banking system while the share was 30.5 percent of the aggregate market risk as of December 2019. The banks' capital charge for exchange rate risk decreased to BDT 8.4 billion at the end-December 2019 from 10.4 billion at the end-December 2018.

Table 3.8 shows top 5 and top 10 banks were exposed to 37.7 and 56.7 percent respectively of the industry's exchange rate risk in 2019. The shares were higher at 47.0 percent and 65.4 percent in 2018. Shares of exchange rate risk in market risk as well as overall risk for the top 5 banks and top 10 banks also decreased in 2019 as compared to the previous year.

57 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.

58 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 3.8: EXCHANGE RATE RISK IN THE BANKING SYSTEM			
Banks	Exchange rate risk	Share in market risk	Share in overall risk
Top 5	37.67%	11.50%	0.30%
Top 10	56.71%	17.31%	0.45%
All Banks	100.00%	30.53%	0.80%

Source: *Data-DOS; Calculation-FSD.*

3.5 OPERATIONAL RISK[59]

As mentioned earlier, the RWA assigned to operational risk was 9.2 percent of the total RWA of the banking industry at end-December 2019 which was 8.8 percent at the end-December 2018. Required capital charge for operational risk as of December 2019 was BDT 95.7 billion, which was 9.7 billion higher than that of the previous year.

TABLE 3.9: OPERATIONAL RISK UNDER BASEL III IN THE BANKING INDUSTRY		
Banks	Share in industry operational risk	Share in industry overall risk
Top 5	27.75%	2.54%
Top 10	44.20%	4.04%
All Banks	100.00%	9.14%

Source: *Data-DOS; Calculation-FSD.*

Table 3.9 reveals that the top 5 and top 10 banks were exposed to 27.7 and 44.2 percent respectively of the industry's operational risk in 2019. These shares remained almost similar in the previous year. However, considering the overall industry risk, the shares of top 5 and top 10 banks slightly increased in 2019 as compared to 2018.

TABLE 3.10: GROUP WISE DISSECTION OF OPERATIONAL RISK IN THE BANKING SYSTEM		
Banks	Share in industry operational risk	Share in overall industry risk
Group 1	47.69%	4.36%
Group 2	25.22%	2.30%
Group 3	15.61%	1.43%
Group 4	8.10%	0.74%
Group 5	3.38%	0.31%
Total	100.00%	9.14%

Source: *Data-DOS; Calculation-FSD.*

Table 3.10 highlights the group-wise operational risk in 2019. It reveals that Group 1 and Group 2 are jointly exposed to 72.9 percent of the industry operational risk which was 73.9 percent in 2018. The shares of operational risk in the overall industry risk for the bank Group 1 and Group 2 are 4.4 and 2.3 percent respectively which were marginally (0.1 percentage point) higher than that of 2018. However, the shares of Group 3, Group 4 and Group 5 in combination constitute about 27 percent of industry operational risk and 2.5 percent of overall industry risk in 2019.

3.6 SECTORAL EXPOSURES AND RISK

Table 3.11 shows that banks have 50 percent lending exposure in the corporate sector. Around 20 percent of total asset's claim on the Government securities and balance with Bangladesh Bank while 17.9 percent of credit is supplied to the Retail and SMEs sector.

59 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 3.11: SECTORAL EXPOSURES OF BANKS AND RISKS As on 31 December 2019				
Sector/Borrower	Total Exposures of Credit (in BDT million)	Share of Exposure	Total RWA (in BDT million)	RWA Density Ratio
Government & BB	2562.8	20.4%	0.0	0.0
PSE	173.0	1.4%	43.5	25.1
Banks & FIs	1283.3	10.2%	347.4	27.1
Corporate	6289.0	50.1%	4290.3	68.2
Retails & SMEs	2250.0	17.9%	1713.0	76.1

Source: *Data-DOS; Calculation-FSD.*

The Table also reveals that among the sectors, Retail and SME sector's credit exposures have the highest RWA Density Ratio of 76.1 percent, because almost all the retail and SME loans are provided for trading purpose, where collateral securities are minimum and higher risk weights are assigned for such businesses as per Basel norms. Corporate lending exposures have a RWA Density Ratio of 68.2 percent while the placement and lending to Banks and FIs have a lower RWA Density Ratio of 27.1 percent in 2019.

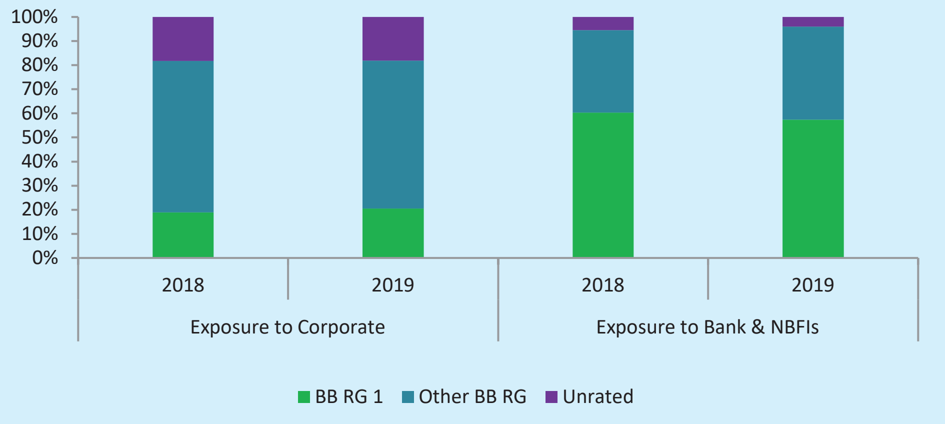
3.7 CREDIT RISK MITIGANTS

The rated exposures increased marginally for the banks and financial institutions (FIs) and remained almost the same for the corporate sector in 2019. More specifically, the percentage of best-rated exposures (BB RG 1) increased for the corporate sector but decreased for the banks and FIs.

In Bangladesh, banks' exposures to non-financial corporations (NFCs) and other banks and financial institutions are rated by External Credit Assessment Institutions (ECAIs) to determine the RWA and minimum capital requirements against the credit risks as per Basel norms. The higher risk weights are allocated for unrated exposures, so banks are encouraged to bring more exposures under ECAIs' rating for mitigating the credit risks effectively. The better the ratings of the exposures, the less likely the banks are exposed to default risk/counterparty risk. Chart 3.4 shows the rated and unrated exposures to NFCs and banks & FIs during the period 2018-2019.

The total exposure of the banking system to the corporate sector as well as banks and NBFIs increased in December 2019 compared to that of December 2018. The overall exposure to the corporate sector was BDT 6,289.01 billion at end-December 2019, recording an increase of BDT 559.73 billion from the exposure in 2018. It is evident from Chart 3.4 that the overall rated exposure of the banking system to corporate sectors remained almost the same. In December 2019, the total rated exposure was 81.9 percent, of which the best-rated exposure was 20.5 percent.

CHART 3.4: BANKS' EXPOSURES TO CORPORATE AND BANKS & NBFIS



Source: *Data-DOS, Calculation-FSD.*

Within the rated exposure, best-rated exposure (BB RG 1) increased by 1.6 percent and other BB RGs decreased by 1.5 percent in December 2019 compared to those of December 2018. The overall credit exposures to banks and FIs was BDT 1,283.3 billion in December 2019, which was BDT 24.8 billion more than the exposure in December 2018. Chart 3.4 suggests that the total rated exposures to banks and FIs are significantly high. In December 2019, banks' total rated exposures to banks and FIs has increased. In 2019, 57.4 percent of matured credit exposures to banks and FIs received BB RG1, a fractional decrease from 60.3 percent in 2018. However, the other BB rated exposures to banks and FIs picked up by 4.4 percent in 2019 compared to 2018. By increasing the coverage of credit rating, banks were able to downsize certain amount of credit risk during 2019.

3.8 CREDIT RATING TRANSITION MATRIX

Credit ratings of most of the corporate entities/exposures have not substantially changed in 2019 in comparison to the ratings of 2018. Percentage of entities/exposures migrated upward is greater than those migrated downward, suggesting the resilience of the financial system with respect to corporate solvency.

Table 3.12 demonstrates the credit rating transition matrix for 2018-19. It shows the transition or migration of entities/exposures from one rating category to another over the 4th quarter of two consecutive years, i.e., 2018 and 2019.

TABLE 3.12: TRANSITION MATRIX 2018-19[60]

From 2018 Rating*	To 2019 Rating*					
	1	2	3	4	5	6
1	76 (100%)					
2	8 (3.1%)	250 (95.8%)	3 (1.1%)			
3	2 (0.4%)	21 (4.4%)	448 (94.5%)	3 (0.6%)		
4			7 (17.1%)	32 (78.0%)	2 (4.9%)	
5						
6						

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

The matrix reveals a stable credit rating scenario in 2019 where 99.1 percent of the entities/exposures maintained either their previous ratings or upgraded to higher rating categories. The magnitudes of upward and downward migration were 4.5 percent and 0.9 percent respectively compared to 5.0 percent and 3.5 percent in 2018. Following BB grading system, 8.9 percent entities/exposures received rating 1, 29.3 percent attained 2 and 52.6 percent was rated 3. In total, 90.8 percent of the total entities/exposures obtained the top three ratings, which indicate resilience of banking and FI sectors in terms of corporate risk exposure.

60 The analysis considers both entity-wise and exposure-wise long-term ratings under surveillance category, assessed by Argus, CRAB, CRISL, ACRL and ECRL. The 4th quarter ratings of 852 entities/exposures common in 2018 and 2019 are compared to prepare the matrix.

Chapter 4

BANK AND FI RESILIENCE

Bangladesh Bank (BB) conducts quarterly stress tests on banks and FIs to ascertain their resilience throughout the year under different plausible shock scenarios[61]. This chapter contains the results of stress tests on banks and FIs as well as on the banking and FI systems based on the data of end-December 2019.

4.1 BANKING SECTOR RESILIENCE

Stress test on banks is conducted through sensitivity analysis, incorporating impacts of the shock scenarios for credit risk, market risk and liquidity risk. Under each scenario, the after-shock Capital to Risk-weighted Assets Ratio (CRAR) is compared with the minimum regulatory requirement of 10 (ten) percent[62]. Particular attention is paid to credit risk, which is the major risk in the banking sector.

Among the 58 scheduled banks on which shocks are applied, 48 banks have been able to meet the minimum regulatory requirement of CRAR of 10 percent while the CRAR of remaining 10 banks have been found to stay below the minimum regulatory requirement as of end-December 2019 due to cumulative loss and provision shortfall. In addition to that, Basel III compliance requires conservation buffer of 2.50 percent with existing minimum capital requirement of 10 percent. As at end-December 2019, 43 banks were able to maintain both regulatory capital of 10 percent and capital conservation buffer of 2.5 percent as per Basel III standards. Table 4.1 shows pre-shock CRAR level of banks.

TABLE 4.1: CAPITAL ADEQUACY SCENARIO OF THE BANKING SECTOR

CRAR (%)	Number of Banks
< 10%	10
≥ 10% but < 12.50%	5
≥ 12.50% but < 15%	21
≥ 15%	22

4.1.1 CREDIT RISK

A variety 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[63] 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 loan portfolio of the banking industry.

TABLE 4.2: STRESS TESTS FOR CREDIT RISK: CRAR AND NPL RATIO AFTER SHOCKS

			(Percent)
Before Stress Scenario	Gross NPL Ratio	Required Minimum CRAR	Maintained CRAR
Banking System	9.32	10.00	11.57
Stress Scenarios[64]:			
	Gross NPL Ratio	Required Minimum CRAR	CRAR after shock
Shock-1: NPL increase by 3%	12.04	10.00	10.30
Shock-2: NPL increase by 9%	17.48		7.32
Shock-3: NPL increase by 15%	22.92		3.04

Source: *FSD, BB.*

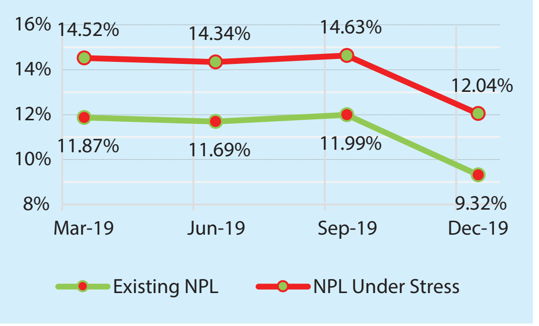
61 This hypothetical test is an early alert tool used by Bangladesh Bank to instruct banks/FIs the severity of risk dimensions in adverse economic & financial condition. The present exercise only highlights the impacts of such shocks and ignores any probable severe shock caused by the COVID-19 pandemic or any future policy support extended to the banks associated to the same.

62 Additional CCB requirement is not considered as part of minimum requirement if not mentioned otherwise. The results are based on the unaudited data for the calendar year ended at December 2019.

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

64 Shock-1, Shock-2, and Shock-3 stand for minor, moderate and major shocks respectively.

CHART 4.1: PROBABLE NPL RATIO AFTER MINOR SHOCK



Source: *FSD,BB*

In Chart 4.1, historical gross NPL ratios of 4 quarters of CY19 are illustrated with a green 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 12.04 percent from the current level of 9.32 percent. Consequently, the banking sector CRAR would have declined to the level of 10.30 percent.

Also, 3 out of 48 banks might become noncompliant in capital adequacy requirement under this stress scenario. Moreover, additional 12 banks would have failed to comply with Basel III minimum required capital including capital conservation buffer (CCB) under the NPL stress scenario.

TABLE 4.3: STRESS TESTS FOR CREDIT RISK: DEFAULT BY LARGEST BORROWERS

		(Percent)
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	11.57
Stress Scenarios	After-Shock CRAR	
Shock-1: Top 3 largest borrowers	10.10	
Shock-2: Top 7 largest borrowers	8.58	
Shock-3: Top 10 largest borrowers	7.69	

Source: *FSD, BB.*

The second test has been conducted on the credit concentration risk of banks to examine the effect of capital adequacy in case of bank-wise default of the three largest individual/group borrowers (Table 4.3). It is found that the capital adequacy of the banking system would decrease to 10.10 percent from existing 11.57 percent while 20 out of 48 banks would likely become noncompliant in maintaining minimum capital adequacy. Moreover, additional twelve (12) banks would have failed to comply with the minimum capital requirement with capital conservation buffer if the credit quality of top 3 borrowers deteriorated to bad/loss grade.

TABLE 4.4: STRESS TESTS FOR CREDIT RISK: INCREASE IN NPLs IN PARTICULAR SECTOR

		(Percent)
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	11.57
Stress Scenarios		After-Shock CRAR
Shock-1: 3% of performing loans directly downgraded to bad/loss		11.48
Shock-2: 9% of performing loans directly downgraded to bad/loss		11.32
Shock-3: 15% of performing loans directly downgraded to bad/loss		11.15

Source: *FSD, BB.*

In the third test (Table 4.4), shock has been applied to standard loans at end-December 2019 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 16.19 percent of the total loans, the result reveals that the risk potential of the two largest business lines would be minimal. If an additional 3 percent of the highest outstanding sector's loans become non-performing (bad/loss), the banking sector's CRAR would likely to decrease to 11.48 percent, but it would still remain above the minimum regulatory requirement. Under this shock scenario, 2 out of 48 banks would likely to become noncompliant in maintaining capital adequacy requirement. Moreover, additional 3 banks would have failed to maintain Basel III minimum capital requirement with capital conservation buffer under this shock scenario.

TABLE 4.5: STRESS TESTS FOR CREDIT RISK: DECREASE IN FSV OF THE COLLATERAL

		(Percent)
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	11.57
Stress Scenarios		After-Shock CRAR
Shock-1: 10% decline in the forced sale value of mortgaged collateral		11.06
Shock-2: 20% decline in the forced sale value of mortgaged collateral		10.55
Shock-3: 40% decline in the forced sale value of mortgaged collateral		9.50

Source: *FSD, BB.*

The fourth test (Table 4.5) 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 decline by 10, 20 and 40 percent under different stress scenarios. Due to the minor shock, one (01) bank would become noncompliant to maintain minimum capital requirement. Moreover, 2 banks would have failed to maintain Basel III minimum capital requirement with capital conservation buffer under this shock scenario.

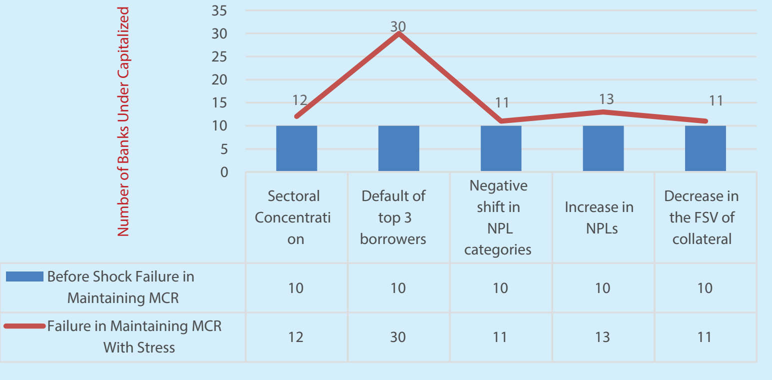
TABLE 4.6: STRESS TESTS FOR CREDIT RISK: NEGATIVE SHIFT IN NPL CATEGORIES

		(Percent)
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	11.57
Stress Scenarios		After-Shock CRAR
Shock-1: 5% negative shift in the NPLs categories		10.96
Shock-2: 10% negative shift in the NPLs categories		10.43
Shock-3: 15% negative shift in the NPLs categories		9.37

Source: *FSD, BB.*

The fifth test (Table 4.6) assumes negative shifts in the existing NPL categories, due to some adverse events for the banks, which might result in additional provision requirement. The standardized shocks are 5, 10 and 15 percent downward shift in the NPL categories (loans downgraded to one step lower category). Resilience is tested for the minor level of shock where hypothetically 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 one (01) bank below the minimum required regulatory capital. In addition, 4 banks would have failed to maintain minimum regulatory capital with capital conservation buffer.

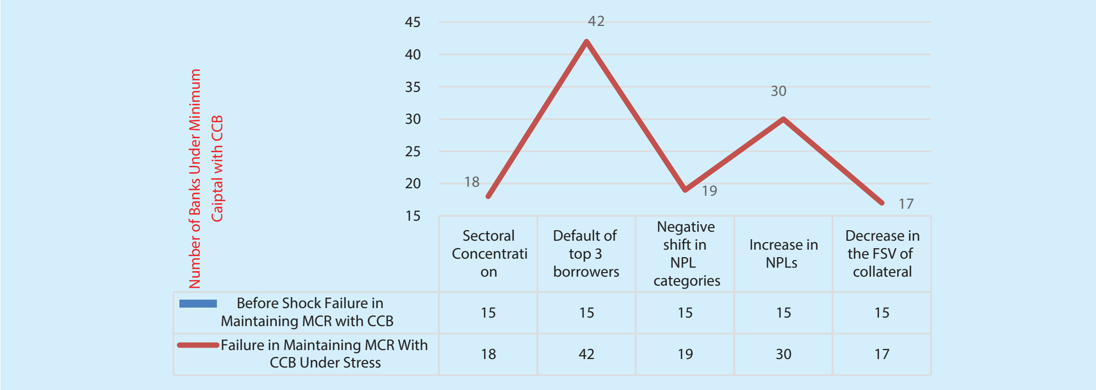
CHART 4.2: STRESS TESTS: MINOR SHOCK ON DIFFERENT CREDIT RISK FACTORS



Note: MCR- Minimum Required Capital.

Source: *FSD, BB.*

CHART 4.3: STRESS TESTS: MINOR SHOCK ON DIFFERENT CREDIT RISK FACTORS (WITH CCB)



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 sector is relatively less resilient with different types of credit shocks (Table 4.2 and 4.3). When shocks are applied by defaulting 3 top borrowers on the data of end-December 2019, along with the 10 undercapitalized banks, additional 20 banks out of 48 (excluding undercapitalized banks) would become noncompliant in maintaining minimum required capital. Similarly, if CCB requirement is considered, a total of 42 banks (including 15 undercapitalized banks in terms of CCB requirement) would not be able to maintain minimum MCR with CCB. As a result of an increase in NPL, 13 banks (including 10 undercapitalized banks) would fall short of minimum capital requirements. So, the exercise identifies that the default of top 03 borrowers is likely to have the highest impact on the banks' resilience.

4.1.2 LIQUIDITY RISK

The liquidity stress test considers excessive[65] withdrawal of demand and time deposits both in local and foreign currency[66]. A bank is considered to be adequately-liquid if it can survive (after maintaining SLR[67]) 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[68]. However, withdrawal is to be adjusted with available liquid assets (excluding SLR). As of end-December 2019, the banking system as a whole would remain resilient against liquidity stress scenarios of 2 to 6 percent additional withdrawal of deposits.

4.1.3 MARKET RISK

The banking industry is found to be fairly resilient in the face of various market shocks[69]. Banking sector will not be noncompliant in maintaining the minimum required capital adequacy under the minor level exchange rate shock and equity price shock. However, interest rate shock will affect 2 banks making them noncompliant in maintaining minimum regulatory capital.

65 Higher than usual.

66 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).

67 SLR: Statutory Liquidity Requirement.

68 Withdrawal means only deposit outflow.

69 Market risk shocks: Interest rate, exchange rate and equity price movements.

TABLE 4.7: STRESS TESTS: INTEREST RATE RISK		
		(Percent)
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	11.57
Stress Scenarios		After-Shock CRAR
Shock-1: 1% increase in interest rate		11.18
Shock-2: 2% increase in interest rate		10.80
Shock-3: 3% increase in interest rate		10.42

Source: *FSD, BB*

TABLE 4.8: STRESS TESTS: EXCHANGE RATE RISK		
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	11.57
Stress Scenarios		After-Shock CRAR
Shock-1: Currency appreciation/depreciation by 5%		11.54
Shock-2: Currency appreciation/depreciation by 10%		11.51
Shock-3: Currency appreciation/depreciation by 15%		11.48

Source: *FSD, BB.*

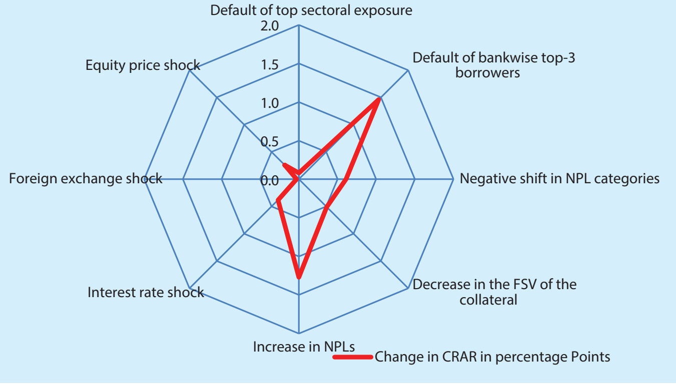
TABLE 4.9: STRESS TESTS: EQUITY PRICE RISK		
Before Stress Scenario	Required Minimum CRAR	Maintained CRAR
Banking System	10.00	11.57
Stress Scenarios		After-Shock CRAR
Shock-1: Fall in the equity prices by 10%		11.31
Shock-2: Fall in the equity prices by 20%		11.04
Shock-3: Fall in the equity prices by 40%		10.51

Source: *FSD, BB.*

4.1.4 BANKING SECTOR RESILIENCE AT A GLANCE

Banking sector demonstrates a mixed resilience under different stress scenarios. Although the banking system seems to be capable in maintaining minimum regulatory requirements in all specified types of minor level shocks scenario, a number of banks would become vulnerable to credit defaults, especially in the event of default of their top three borrowers. However, most of the banks as well as the banking system would likely to remain resilient against interest rate, exchange rate, equity price and liquidity stress scenarios (Chart 4.4).

CHART 4.4:BANKING SECTOR RESILIENCE IN DIFFERENT SHOCK SCENERIOS (AT MINOR LEVEL SHOCK)



Source: *FSD, BB*

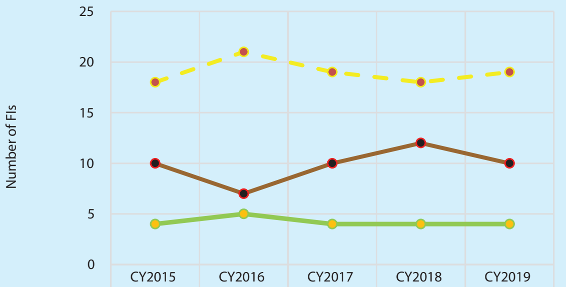
4.2 RESILIENCE OF THE FINANCIAL INSTITUTIONS

Stress test on the financial institutions (FIs) is conducted to assess their resilience on a standalone as well as system-wide basis with different shock events. The Weighted Average Resilience (WAR) of FIs is calculated based on the weights of 10.0 percent for interest rate, 60.0 percent for credit, 10.0 percent for equity price and 20.0 percent for liquidity 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 at which an FI moves 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 Special Attention (for grade 4 and 5) zone. The WAR-WIR Matrix expresses the overall financial strength and resilience of an 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 (Chart 4.5).

CHART 4.5: STRESS TESTS ON FINANCIAL INSTITUTIONS



	CY2015	CY2016	CY2017	CY2018	CY2019
Green Zone	4	5	4	4	4
Yellow Zone	18	21	19	18	19
Special Attention Zone	10	7	10	12	10

Source: *FSD, BB*

Stress test results, based on the data as of end-December 2019, reveal that 4 out of 33 (except two FIs facing financial difficulties) FIs are positioned in Green and 19 in Yellow zone. Indeed, 23 FIs would have performed as resilient institutions during October-December 2019 quarter. On the other hand, 10 FIs are positioned in Special Attention 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 banking and FIs systems would be resilient to different shock simulations. However, the significant amount of loan concentrated among few borrowers and considerable level of NPL in some banks and FIs could pose risk to the overall financial stability. Strict compliance of the guideline on large loan/single borrower exposure would be helpful in reducing risks on banks' exposure to large corporate or to specific group, specific sector or specific region. Moreover, the impact of COVID-19 attack is another potential threat for the stability of the financial system. The aftermath of the attack might instigate the materialization of moderate or severe shock scenarios which are usually less likely to happen in normal situation. The different policy initiative as well as incentive measures so far taken by the central bank and the government could prevent or mitigate systemic risk to cope with COVID-19 pandemic in the upcoming days.

Chapter 5

FINANCIAL INSTITUTION'S PERFORMANCE

Financial Institutions (FIs) have been playing a significant role in the financial system of Bangladesh by providing additional and alternative financial services that are not always being provided by the full-fledged banking industry. They are thus viewed as catalysts for enhancing the financial frontier of the economy. They play dynamic role by meeting diverse financial needs of households and businesses of the country. Lease finance is the main business of the financial institutions. Presently they are also diversifying their portfolio in the field of term lending, SME, trade, equity financing, merchant banking and venture capital etc.

As of end-December 2019, 33 FIs (except Peoples Leasing, which is in liquidation process) are operating in Bangladesh. Out of the total FIs, 3 (three) are fully government-owned, 18 (eighteen) are privately-owned local companies and the remaining 12 are established under joint venture with foreign participations. The FIs through their 276 branches perform financing activities throughout the country. Though established long before, the sector's asset size remains small, only 5.35 percent of banking sector's asset in CY19. During this year, capital base of FIs notably strengthened as capital adequacy ratio (CAR) significantly increased to 17.5 percent compared to previous year. Profitability of FIs also slightly increased despite deterioration of asset quality. Furthermore, BB has tightened supervision and adopted stringent measures to address corporate governance weaknesses in some of the FIs.

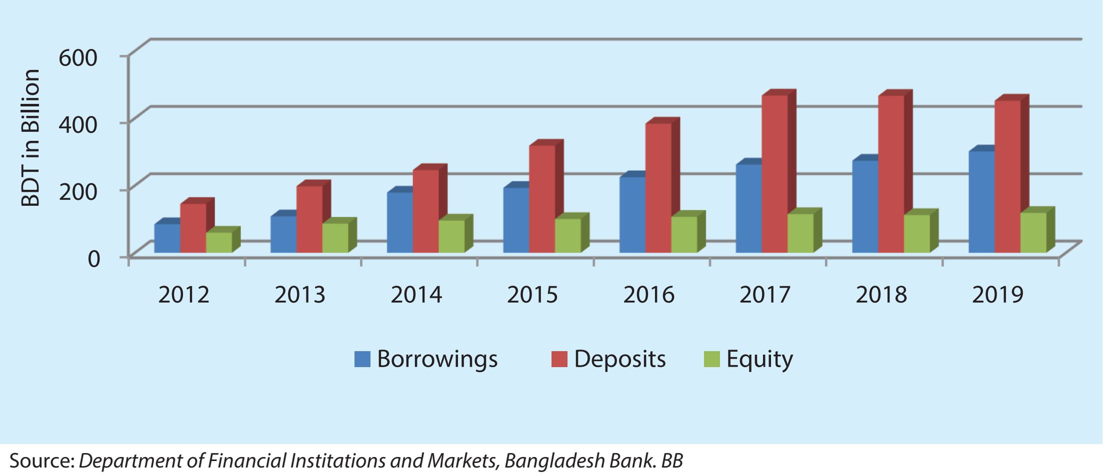
5.1 PERFORMANCE OF FIs

Bangladesh Bank evaluates the performances of FIs through its on-site and off-site supervision mechanism throughout the review year. Six major crucial indicators are evaluated through CAMELS rating system. The indicators are capital adequacy, asset quality, management efficiency, earnings, liquidity and sensitivity to market risk. Furthermore, performance of FIs is also considered using other different variables such as sources of funds, asset composition and liability-asset ratio.

5.1.1 SOURCES OF FUND

The sources of funds for FIs are comprised of share capital, bond, borrowing from banks and other financial institutions, insurance companies and international agencies. In addition, term deposits, money at call, placement from banks and other FIs as well as securitizations also constitute part of funding sources of FIs.

CHART 5.1: FIs' BORROWINGS, DEPOSITS AND EQUITY TREND



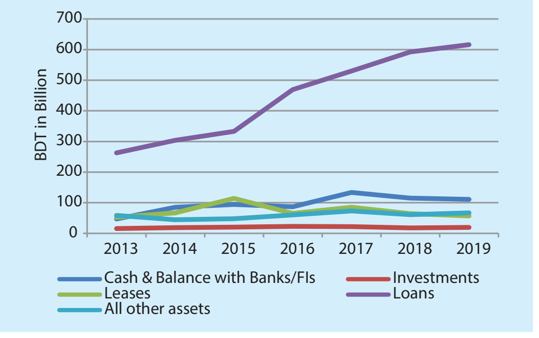
Source: *Department of Financial Institutions and Markets, Bangladesh Bank. BB*

As of end-December 2019, deposits, borrowings and equity constituted 51.9 percent, 34.5 percent and 13.6 percent of the funding sources respectively. These proportions were 54.7 percent, 32.1 percent and 13.2 percent respectively at end-December 2018. It is mentionable that, in CY19, borrowings, and equity of FIs increased by 10.2 percent and 5.7 percent respectively but deposits declined by 3.1 percent compared with those of the previous year.

5.1.2 ASSETS COMPOSITION

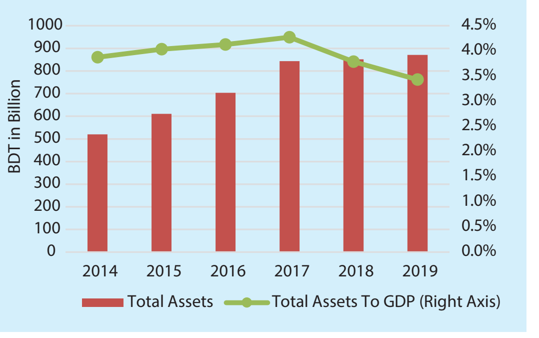
At end-CY19 aggregate assets of all the FIs stood at about BDT 871.5 billion, an increase by 2.3 percent from that of CY18[70]. Cash and balances with banks/FIs, and loan/leases are the major parts of total asset (Chart 5.2). The share of loans and leases to total assets was 77.2 percent as of end-December 2019, which was almost same (77.1 percent) as of end-December 2018. The cash balance possessed 12.7 percent of total asset as of end-December 2019. Other components such as investments and all other assets (including fixed and non-financial assets) were 2.3 percent and 7.7 percent of total assets

CHART 5.2: FIs' ASSET COMPOSITION



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

CHART 5.3: FIs' TOTAL ASSET TO GDP RATIO



respectively. FIs' total assets to GDP ratio[71] accounted for 3.4 percent at end-December 2019 which was 3.8 percent at end-December 18 (Chart 5.3).

Box 5.1: FIs' Sector-wise Loans and Leases as of End-December 2019

SL	Major sectors	Amount (in billion BDT)	Percent	HHI*
1	Trade and Commerce	94.57	13.9%	193
2	Industry:			
	A) Garments and Knitwear	35.41	5.2%	27
	B) Textile	30.23	4.5%	20
	C) Jute and Jute-Products	3.07	0.5%	0
	D) Food Production and Processing Industry	27.02	4.0%	16
	E) Plastic Industry	8.68	1.3%	2
	F) Leather and Leather-Goods	2.67	0.4%	0
	G) Iron, Steel and Engineering	33.78	5.0%	25
	H) Pharmaceuticals and Chemicals	15.86	2.3%	5
	I) Cement and Allied Industry	17.48	2.6%	7
	J) Telecommunication and IT	15.18	2.2%	5
	K) Paper, Printing and Packaging	12.03	1.8%	3

70 Total assets of FIs as on end-December, 2018 has been taken from BB Annual Report 2018-2019 (published).

71 December basis Assets and June basis GDP figures have been used for the calculation of total Asset to GDP ratio.

	L) Glass, Glassware and Ceramic Industry	5.62	0.8%	1
	M) Ship Manufacturing Industry	4.09	0.6%	0
	N) Electronics and Electrical Products	8.66	1.3%	2
	O) Power, Gas, Water and Sanitary Service	65.96	9.7%	94
	P) Transport and Aviation	29.07	4.3%	18
3	Agriculture	15.91	2.3%	5
4	Housing	130.84	19.3%	372
5	Others			
	A) Merchant Banking	22.82	3.4%	12
	B) Margin Loan	15.40	2.3%	5
	C) Others	83.68	12.3%	151
	TOTAL	678.03	100.0%	963

** Herfindahl-Hirschman Index (HHI)*

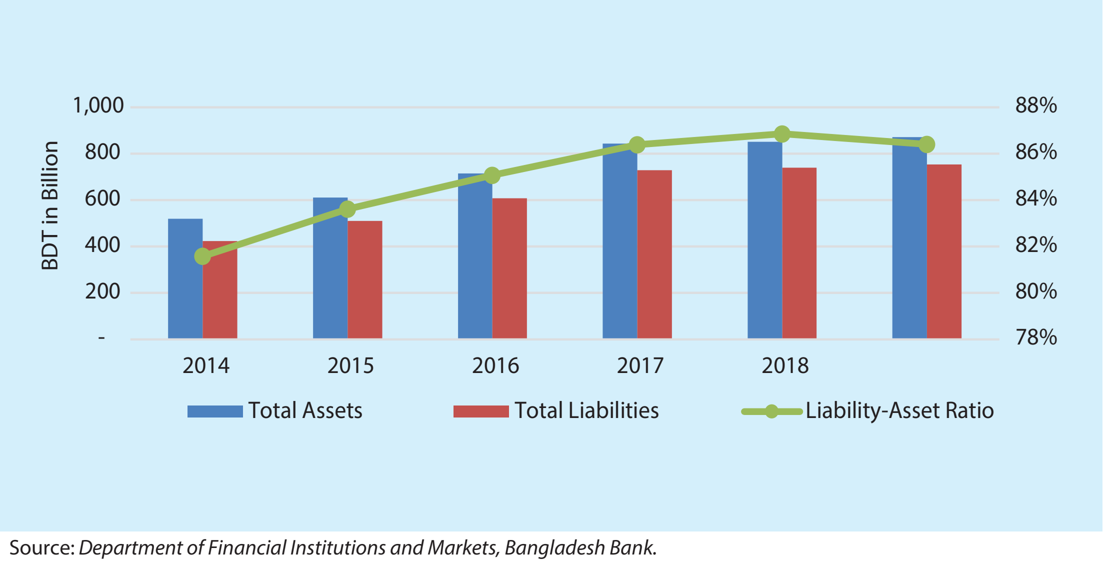
Source: *Department of Financial Institutions and Markets, Bangladesh Bank.*

The calculated Herfindahl-Hirschman Index (HHI) indicates that FIs' loans and leases were competitive[72] during CY19. The aggregate value of the index was 963 at end-December 2019 while it was 978 in 2018. FIs' loans and leases were concentrated in the two major sectors namely housing sector and trade and commerce sector, which accounts for 19.3 percent and 13.9 percent of total loans and leases respectively.

5.1.3 LIABILITY-ASSET RATIO

The liability-asset ratio reached 86.41 percent at end-CY19, 45 basis points lower than 86.86 percent recorded in CY18[73]. The liability-asset ratio of the FIs is still high indicating lesser contribution of equity from owners.

CHART 5.4: FIs' LIABILITY-ASSET RATIO



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

72 HHI lying below 1500 points indicates competitive concentration.

73 Total asset of end-December 2018 was taken from BB Annual Report 2018-2019 (published).

5.1.4 ASSET QUALITY

FIs' asset quality deteriorated in CY19 compared to that of CY18. The ratio of non-performing loans and leases to total loans and leases jumped from 7.9 Percent in CY18 to 9.5 percent in CY19. During CY19, the loan loss provisions amounting to BDT 23.4 billion was maintained by FIs against a requirement of BDT 32.8 billion, representing a coverage ratio of 36.5 percent of non-performing loans and leases, 13.8 percentage point lower than the level recorded in CY18. Four FIs, out of 33, could not maintain required provision, which eventually led to a provision shortfall of BDT 9.4 billion for the industry. The shortfall was BDT 5.8 billion at end-December 2018.

CHART 5.5: FIs' CLASSIFIED LOANS AND LEASES

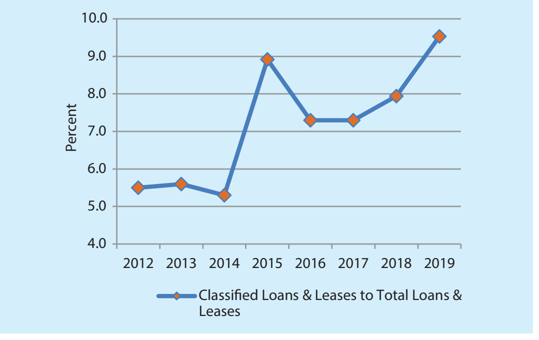
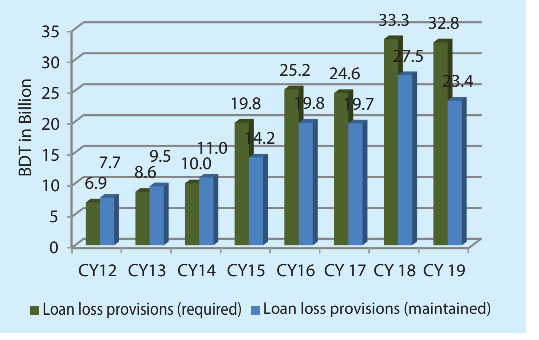


CHART 5.6: FIs' LOAN LOSS PROVISIONING



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

5.1.5 PROFITABILITY

The overall profitability of the FIs as of December 2019 was higher than that of 2018. In CY19, profit before taxes was amounting to BDT 17.2 billion, an increase by 17.6 percent compared with that of CY18. This improvement can be attributable to 20.9 percent (BDT 4.96 billion) rise in net interest income, although there was 31.3 percent decrease in net investment income. At the same time, operating expenses increased by 5.7 percent and maintained loan loss provisions decreased by 15.1 percent compared with those of the previous year. Consequently, the key profitability measures such as return on assets (ROA) and return on equity (ROE) became upward compared with those of the preceding year. The ROA and the ROE was 1.5 percent and 10.8 percent respectively at end-December 2019.

CHART 5.7: FIs' TREND OF INCOME AND EXPENSE

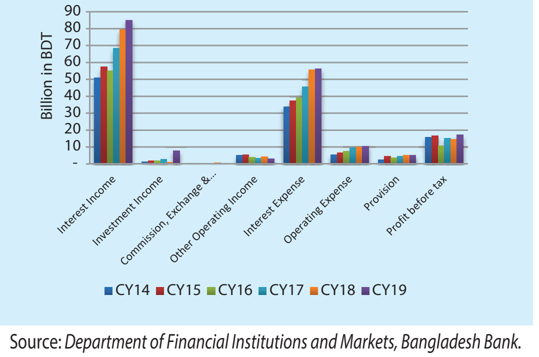
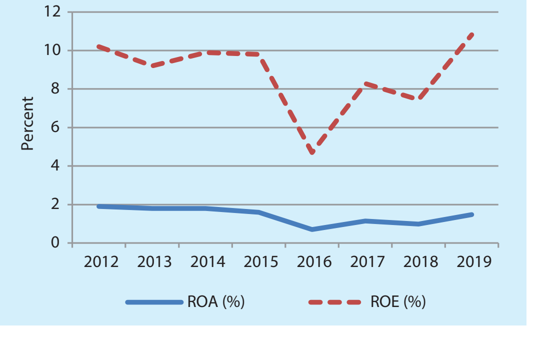


CHART 5.8: FIs' PROFITABILITY TREND

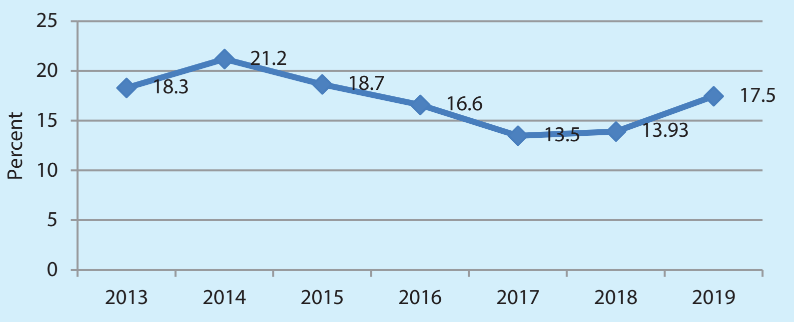


Source: *Department of Financial Institutions and Markets, Bangladesh Bank.*

5.2 CAPITAL ADEQUACY

FIs are required to maintain capital adequacy in line with Basel II standards of Bangladesh Bank. The capital adequacy ratio (CAR) was 17.5 percent at end-December 2019, compared with 13.9 percent recorded at end-December 2018. Against the 4.6 percent decrease of total risk weighted asset (RWA), total maintained eligible capital 19.7 percent in CY19 from the CY18. The trend of CAR of FIs reflects a rising trend in CY19, which is in line with the regulatory requirement. The overall CAR depicts a strong position as it is well above the regulatory minimum requirement.

CHART 5.9: FIs' CAPITAL ADEQUACY RATIO (CAR)

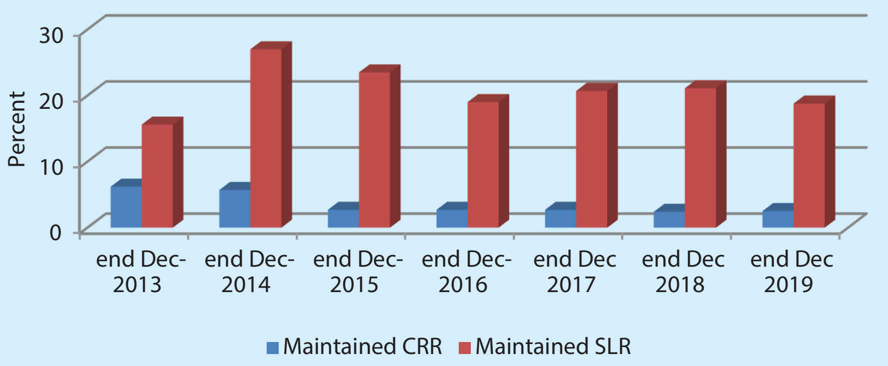


Source: *Department of Financial Institutions and Markets, Bangladesh Bank.*

5.3 LIQUIDITY

As of end-December 2019, the FIs sector maintained a 2.5 percent CRR and 18.8 percent SLR. Balances with other banks and FIs, call money investment, investments in government securities and any other assets are considered as the components of SLR as per BB's guideline. However, 06 (six) FIs were unable to maintain minimum CRR and 01 (one) FI could not maintain minimum SLR as of end-December 2019[74].

CHART 5.10: FIs' CRR AND SLR



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

Overall analysis shows that the equity and borrowing of FIs increased in CY19 compared to CY18 whereas the deposit position slightly declined. Moreover, the loan/leases slightly increased but the profitability of the FIs showed an upward trend in CY19 compared to CY18, though the significant amount of provision shortfall is a concern from the stability point of view. The overall CAR of FIs depicts a sound position as per regulatory standards, despite the subdued status of some FIs. Industry liquidity position of FIs in line with regulatory requirements also upheld a good situation. The number of FIs under review has been decreased from 34 to 33 in CY19,[75] but number of branches throughout the country has increased. Bangladesh Bank was constantly monitoring the performance of the FIs and took necessary steps to maintain the industry condition stable during CY19.

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

75 People's Leasing is currently under liquidation process.

Chapter 6

MONEY AND CAPITAL MARKET

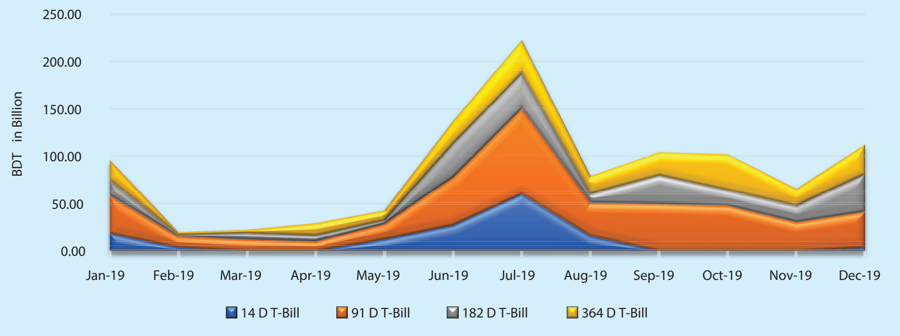
A moderate liquidity condition was observed in the domestic money market during CY19. Lower issuance of BB Bill and large liquidity support by BB signifies the prevalence of liquidity stress in the money and financial market. Though the interbank repo rate and call money rate exhibited a bit of volatility, liquidity stress was minimal in the money market. Bond market is primarily government-bond dominated with low product variations while the activities remain mostly based on the primary auction. The capital market did not show up with investors' expectations in 2019. The sluggish stock market development can partly be attributed to moderate liquidity in the banking system and a relatively higher return on the alternative instruments like the Government's saving certificates.

6.1 MONEY MARKET

A small amount of BB bills was issued during the CY19. The issuance of T-bills was increased mostly from June, it was at the highest level in July, finally waved in increasing trend in the last quarter of CY19.

Bangladesh Bank (BB) issued 7-days BB bills worth BDT 4.75 billion in 2019. Notably, bills with maturities of 07, 14 and 30-days amounting a total of BDT 4,573.18 billion were issued in 2018.[76] The government issued treasury bills (T-bills) with different maturities worth BDT 1,036.57 billion in 2019 for better matching of the public financing, which was 94.77 percent higher than that of the previous year. T-bills with maturities of 14, 91, 182, and 364 days' worth BDT 143.98 billion, BDT 432.69 billion, BDT 218.18 billion and BDT 241.71 billion respectively were issued in 2019 (Chart 6.1). A decline in sales of the National Savings Certificate (NSC), due largely to stringent regulations, might be a possible reason for such rapid growth in T-bills issuance.

CHART 6.1: VOLUME OF T-BILLS ISSUANCE IN 2019



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

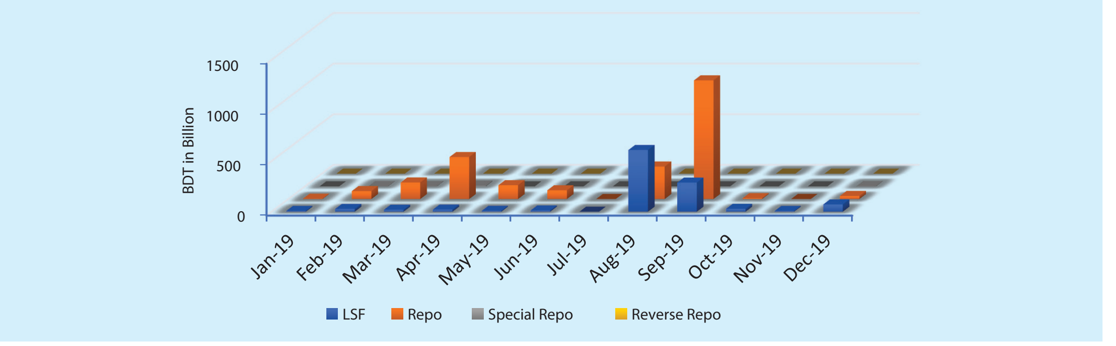
6.1.1 REPO WITH BANGLADESH BANK

Liquidity support facility (LSF) and repo from Bangladesh Bank was availed to a large extent during CY19.

Chart 6.2 shows that banks and financial institutions (FIs) availed liquidity support facility (LSF) worth BDT 1,099.73 billion, repo facility worth BDT 2,414.06 billion and special repo worth BDT 12.65 billion from BB. But the banks and FIs did not enter into any reverse repo arrangement in CY19. It is mentionable that they availed the LSF worth BDT 94 billion and a special repo facility worth BDT 9.4 billion in 2018.

76 07 and 14-day BB bills were introduced in April 2016 mainly for sterilization purpose. (DMD Circular No. 03, dated 05 April 2016.)

CHART 6.2: AVERAGE MONTHLY TURNOVER OF LSF, REPO, SPECIAL REPO AND REVERSE REPO IN 2019

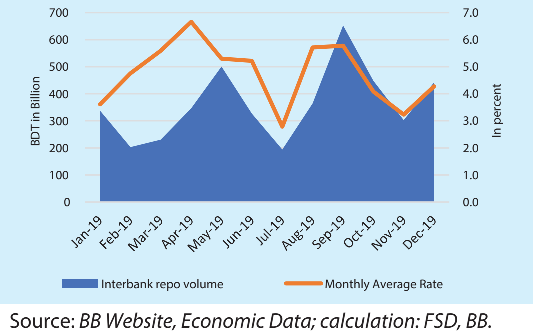


Source: *BB website, Economic Data; calculation: FSD, BB.*

6.1.2 INTERBANK REPO

The volume of interbank repo transactions increased in 2019 compared to that in 2018 amid fluctuation of interbank repo rate[77].

CHART 6.3: INTERBANK REPO TURNOVER AND INTERBANK REPO RATE IN 2019



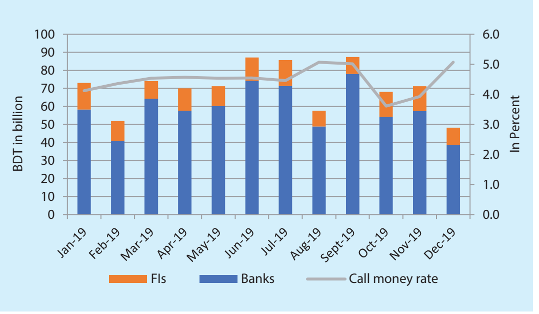
Source: *BB Website, Economic Data; calculation: FSD, BB.*

The volume of interbank repo transactions in 2019 was BDT 4,349.18 billion which was 183 percent higher than the amount of BDT 1,537.80 billion in 2018. Moreover, the interbank repo rate showed moderate fluctuation throughout the year and reached to 4.28 percent in December 2019 (Chart 6.3). The rate was 5.2 percent in December 2018.

6.1.3 INTERBANK CALL MONEY AND INTERBANK DEPOSIT MARKET[78]

An increase in annual average call money rate couldn't resist the increase in the volume of transactions in the interbank call money market.

CHART 6.4: CALL BORROWING VOLUME AND MONTHLY WEIGHTED AVERAGE CALL MONEY RATE IN 2019



Source: *BB website, Economic Data & FSD, BB. Calculations: FSD, BB.*

During 2019, the monthly average call money rate demonstrated a fluctuating trend and stood at 5.07 percent in December of the year (Chart 6.4). However, the annual average call money rate increased to 4.49 percent in 2019, 82 basis points (bps) higher than that of the previous year.

In terms of total transaction volume, the call money borrowing was BDT 845.65 billion in 2019 which was 2.4 percent higher than that of 2018 (BDT 826.2 billion). The contribution of the banks stood at BDT 703.70 billion from BDT 664.7 billion of 2018, recording an increase of 5.9 percent. The increased demand for the fund in 2019 can be attributed to a number of factors.

77 Monthly weighted average interbank repo rate.

78 Interbank call money only includes exposures of scheduled banks and FIs with each other. Assets or liabilities with non- scheduled financial institutions are excluded from this discussion.

For instance, government used to borrow a substantial amount from the banking system as the cost of banks' fund was cheaper compared to that of national savings certificates. Besides, the cut-off yield rate of 91-days treasury bills increased to 7.9 per cent on August 26, 2019 while the rate of yield of same treasury bills was 2.4 per cent on January 1, 2019, alluring the banks to supply more funds to the government. Hence, the demand of call money market went up to match banks' liquidity for day-to-day (and short-term) operations. The Bangladesh Bank has also increased the borrowing limit from inter-bank call money market in 2019. FIs, on average, borrowed 17.12 percent of the total call money in 2019.

In terms of lending, the call money market was highly concentrated as only 06 (six) banks supplied 63.05 percent of the total volume of call money lending as of December 2019. On the other hand, 06 (six) banks borrowed 45.19 percent of the total available call funds. The SCBs remained the top lenders while PCBs remained the top borrowers in the call money market since 2016. In 2018, SCBs shared 55.4 percent of lending while PCBs shared 63.2 percent of total borrowing of this call money market[79].

The interbank deposit market[80] was not as concentrated as the call money market in 2019. SCBs were the top deposit providers while PCBs were the top deposit receivers. FIs also secured a significant portion of the interbank deposit market. No single bank dominated either the demand or supply side of this market. The total volume of this market recorded at BDT 574.2 billion at end-December 2019, which was 18.68 percent lower than that of the previous year.

6.2 BOND MARKET

To develop an efficient and competitive financial system in Bangladesh, a dynamic bond market is essential. An active bond market is crucial for better supplement/management of banks' liquidity, government debt, and monetary policy. Besides, a vibrant bond market would strengthen the financial stability by eliminating the maturity mismatch problem of bank-based financing. Till now, the bond market of Bangladesh is primarily government-bond dominated with low product variations while the activities are mostly based on the primary auction.

In 2019, long-term treasury bonds worth BDT 421.26 billion were issued. The value of treasury bonds sold in 2019 for different maturities is exhibited in Table 6.1, which shows that the sale value is higher for bonds with lower maturity. Two-year treasury bond was the highest sold bonds in the market as its share was 27.58 percent of the total auction sales.

TABLE 6.1: VOLUME OF T-BOND'S AUCTION SALES IN 2019

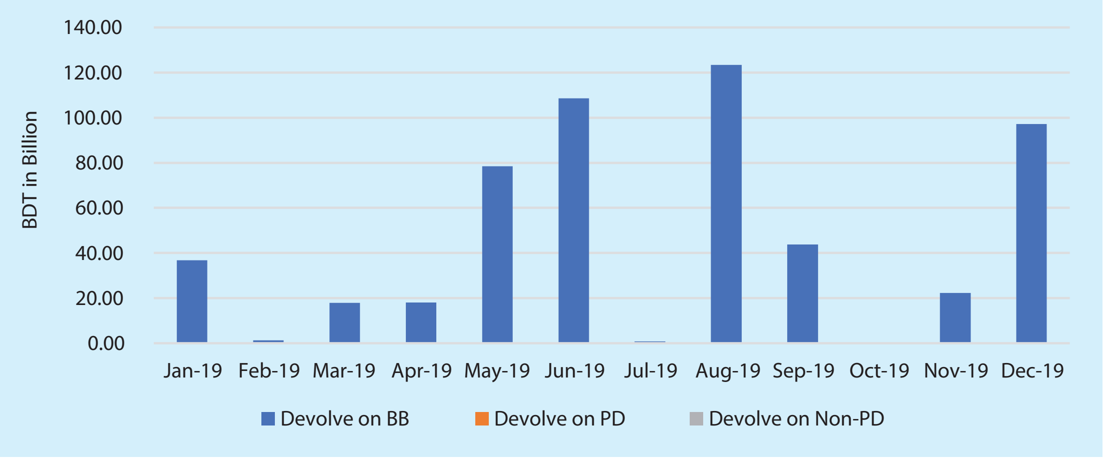
Tenure	Volume (BDT in Billion)	% of Total Auction Sales
2 Y T-Bonds	116.21	27.58%
5 Y T-Bonds	108.95	25.87%
10 Y T-Bonds	91.45	21.71%
15 Y T-Bonds	49.16	11.67%
20 Y T-Bonds	55.49	13.17%
Total	421.26	100.00%

Chart 6.5 exhibits the mandatory devolvement of treasury securities in primary auction sales during the CY19. The chart shows that devolvement on Bangladesh Bank amounting to BDT 548.5 billion took place throughout the year. Primary dealers (PDs) and Non-PDs were free from devolvement during 2019. Higher devolvement was mainly observed in May, June, August, and December.

79 Due to some technical constraints, data on the lending and borrowing shares for 2019 were not extractable during this publication.

80 Any Local Currency deposit that is held by one bank for another bank.

CHART 6.5: VOLUME OF TREASURY SECURITIES AUCTION SALES – MANDATORY DEVOLVEMENT, 2019

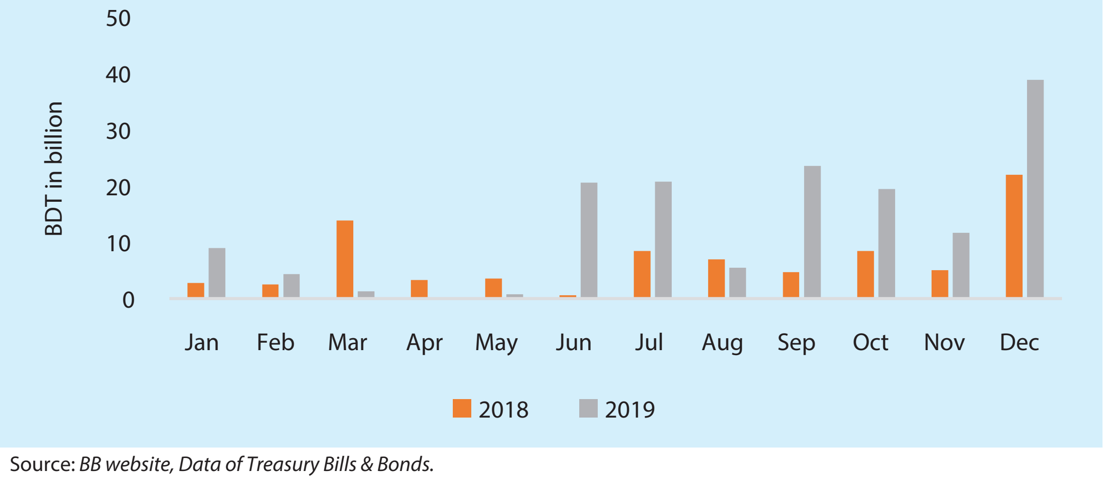


Source: *BB website, Treasury Bills/Bonds Auctions. Calculation: FSD, BB.*

The total volume of government securities traded in the secondary market was BDT 155.5 billion during the review year. The Over-the-Counter (OTC) mechanism of Market Infrastructure (MI) module (an automated auction and trading platform for G-Securities) was mainly used for trading. The volume of secondary trade using the Trader Work Station (TWS) mechanism was insignificant.

The trend in monthly secondary trade in 2019 is displayed in Chart 6.6. It shows that the higher monthly trading volumes took place during the second half of the review year. Particularly, the trading volume recorded a pick in December 2019 with 38.8 billion transactions against 22.0 billion in December 2018. On the other hand, there was no trading volume in April 2019.

CHART 6.6: MONTHLY VOLUME OF SECONDARY TRADE



Source: *BB website, Data of Treasury Bills & Bonds.*

BOX 6.1: YIELD CURVE

In December 2019, the treasury auction yield curves for both short-term treasury bill and long-term treasury bond exhibited an upward trend compared to that of the December 2018 and June 2019. However, the rise was larger for short-term yield which made the yield curve flattening. Generally, a flattening yield curve indicates an early sign for economic slowdown and a lower expected inflation rate. But in the absence of a vibrant secondary bond market, such an indication from the primary market may not be reflective of the credit market. Moreover, short-term variation in the yield curve may be caused by temporary liquidity needs of financial intermediaries, which might be eased periodically and do not necessarily have an impact on long-term economic activities.

CHART B.6.1: TREASURY BILL YIELD CURVE

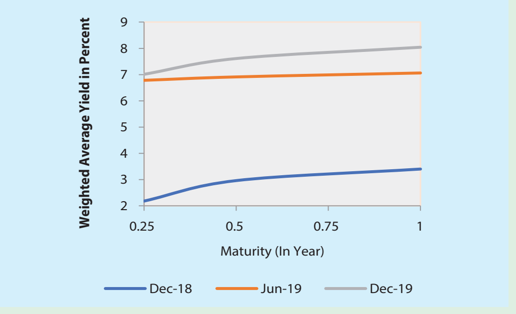
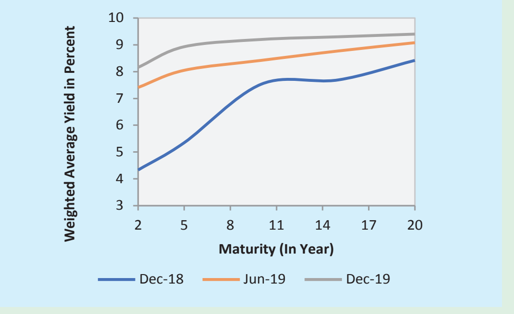


CHART B.6.2: TREASURY BOND YIELD CURVE



Source: *Major Economic Indicators, January 2020 Issue, BB.*

Starting from shorter ends, Chart B.6.1 exhibits the yield of T-bills rose by 4.83 for 91 days T-Bill, 4.65 for 182 days T- Bill, and 4.64 percentage points for 364 days T-Bill from December 2018 to December 2019 resulting in the decrease in yield gap between the shorter and longer-term bills. On the other hand, Chart B.6.2 shows that in December 2019 yields rose by 3.83, 3.58, 1.67, 1.61 and 0.98 percentage points respectively for two years, five years, ten years, fifteen years and twenty-year T-bond during the review year compared to the previous year which makes the yield curve for T-bond flattening as well.

6.3 STOCK MARKET

The capital market in Bangladesh was bearish in CY19 as has been evident from movements in major market indicators like index value, market capitalization, daily average turnover, number of companies that declared dividends, and foreign portfolio investment in the Dhaka Stock Exchange (DSE), the prime bourse in Bangladesh.

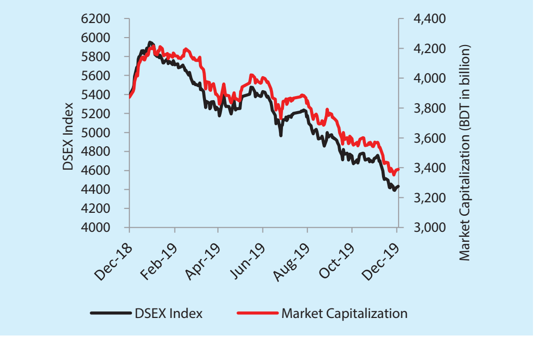
The DSE Broad Index (DSEX) decreased by 17.3 percent in 2019. Likewise, the market capitalization of DSE declined by 12.3 percent. The turnover velocity ratio also decreased to 33.5 percent in 2019, from 34.4 percent in 2018. Though dividend yield has improved considerably, the number of companies that did not declare dividends has increased. Further, the net foreign portfolio investment became negative. Low confidence of the investors in the market might have been a key reason behind this bearish development of the stock market in 2019.

6.3.1 MAJOR INDEX AND MARKET CAPITALIZATION

Chart 6.7 shows the persistent downward movement of the DSE Broad Index (DSEX) throughout 2019. DSEX stood at 4452.9 in end-December 2019 from 5385.6 in end-December 2018; and thereby, lost 932.7 index points during this year. The market capitalization of DSE also decreased gradually throughout the review year and reached to BDT 3,395.5 billion at the end of 2019 from BDT 3,872.9 billion at the end of 2018. The falling index coupled with the decreased market capitalization indicates the bearish capital market during the review year.

Chart 6.8 exhibits the candlestick chart for the DSEX Index which reveals the investors' sentiments and behaviors from the different patterns of the opening index, highest index, lowest index and closing index. Lower market confidence of the investors is reflected in the consecutive second long red candle since CY18. Notably, the difference between the highest and lowest index was highest in 2019 since the starting year of the DSEX index (2013) and the yearly closing index was the lowest in the last five years.

CHART 6.7: DSEX INDEX AND MARKET CAPITALIZATION IN 2019



Source: *DSE.*

CHART 6.8: DSEX (CY-2013 TO CY-2019)

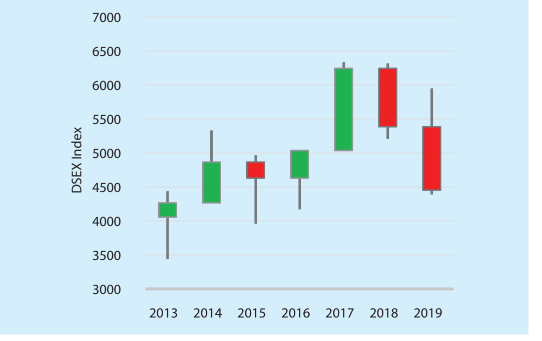
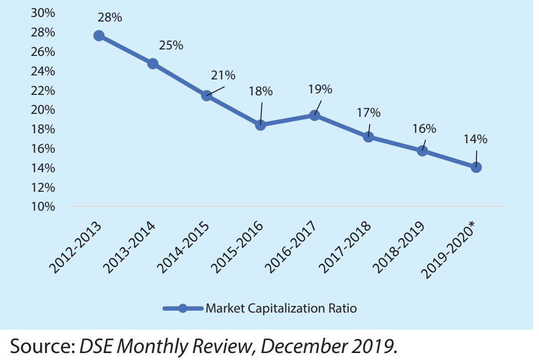


CHART 6.9: MARKET CAPITALIZATION TO GDP RATIO



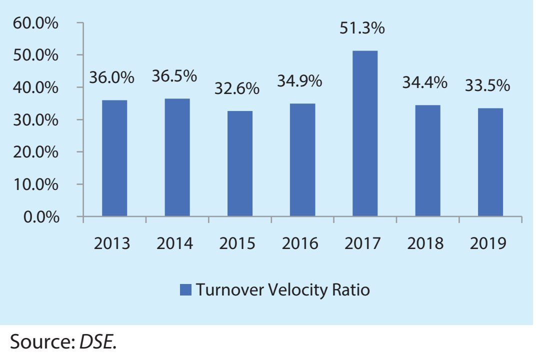
Source: *DSE Monthly Review, December 2019.*

** The GDP of FY 2018-19 is considered for the calculation of market capitalization ratio in December 2019.*

Total market capitalization as a percentage of GDP is a vital indicator that indicates the extent of deepening of a country's stock market. Chart 6.9 shows that the market capitalization-to-GDP ratio is gradually falling and plunged at 14.1 percent in 2019. The divergence in the growth direction of market capitalization and the GDP is the reason behind this scenario. The declining ratio also refers to the diminishing contribution of the stock market towards the economic growth in Bangladesh. More high-quality stocks should be promoted and listed to provide additional depth into this market so that it not only could facilitate the long-term financing demand but also could ensure a strong footing for the financial stability of Bangladesh.

6.3.2 TURNOVER VELOCITY RATIO

CHART 6.10: TURNOVER VELOCITY RATIO (CY13-19)

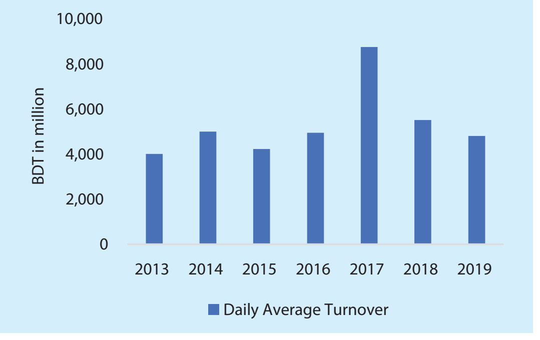


Source: *DSE.*

Traded turnover to market capitalization, also known as turnover velocity ratio, is an indication of liquidity available in the stock market. Higher the turnover velocity ratio, the more the liquidity available for the investors. Chart 6.10 shows that the turnover velocity ratio slightly decreased to 33.5 percent in 2019 from 34.4 percent in 2018 which implies that liquidity got further tighter in 2019. Consequently, cost and price volatility were adversely impacted.

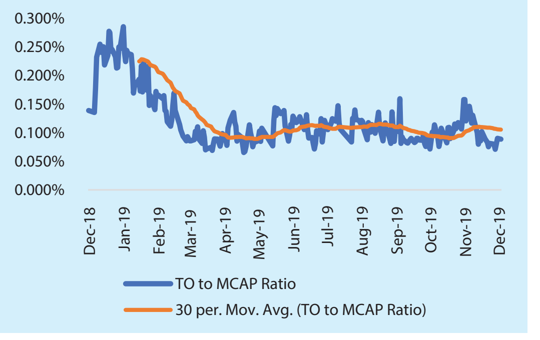
Chart 6.11 shows that the daily average turnover decreased to BDT 4.8 billion in 2019 from BDT 5.5 billion in 2018; reflecting a slight diminution in liquidity in the market. Turnover to market capitalization ratio in chart 6.12 exhibits that market liquidity was gradually deteriorating from January to April and remained low thereafter throughout the review year. The highest and the lowest value of the turnover to market capitalization ratio in 2019 was 0.29 percent and 0.07 percent respectively.

CHART 6.11: DAILY AVERAGE TURNOVER (CY13-19)



Source: *DSE.*

CHART 6.12: TURNOVER TO MARKET CAPITALIZATION RATIO (CY-19)



Source: *DSE and Monthly Economic Trends, BB.*

6.3.3 MARKET CAPITALIZATION DECOMPOSITION

Charts 6.13 and 6.14 demonstrate the sectoral share in market capitalization in 2018 and 2019 respectively. As usual, the manufacturing sector dominates the market capitalization in 2019 capturing 37.7 percent of the total market share. Although the manufacturing sector captured the highest market share, it was declined by 134 bps during the review year from 39.1 percent in 2018. The key reasons for such decline were the negative growth in market capitalization of fuel and power, food and allied, engineering, pharmaceuticals and chemicals, and textile industries.

Service and miscellaneous sectors also slightly decreased though retained the second largest market share. The market share of this sector decreased to 34.1 percent in 2019 from 34.4 percent in 2018. The decline of this market share can be largely attributed to the declining market capitalization of telecommunication industries. The share of the financial sector in total market capitalization increased by 161 bps and reached 28 percent in 2019 from 26.4 percent in 2018. However, the corporate bond sector remained insignificant to 0.10 percent in 2019.

CHART 6.13: DECOMPOSITION OF MCAP (DEC- 2018)

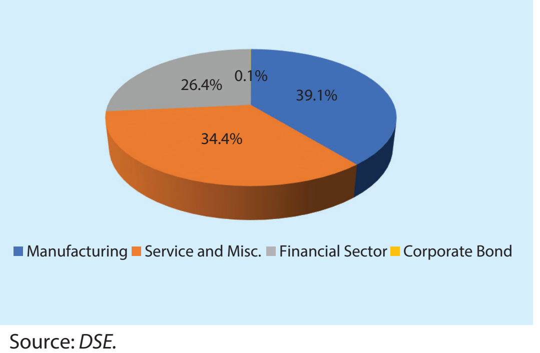
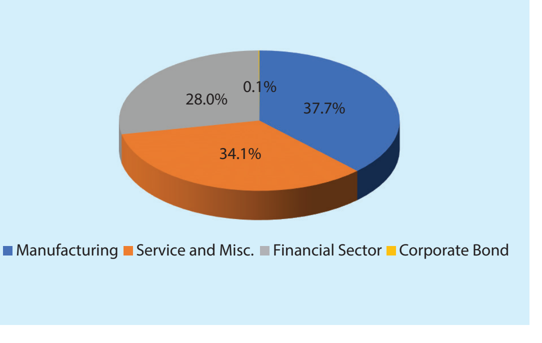


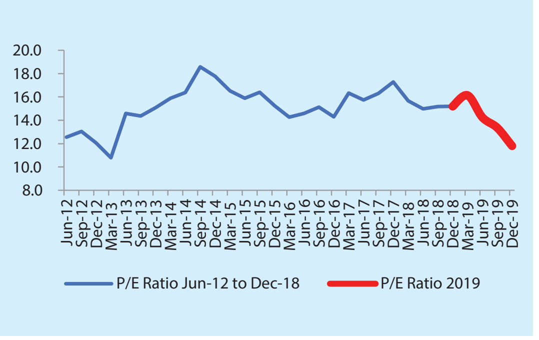
CHART 6.14: DECOMPOSITION OF MCAP (DEC- 2019)



Source: *DSE.*

6.3.4 PRICE-EARNINGS (P/E) RATIO

CHART 6.15: MARKET PRICE EARNINGS RATIO (JUNE 2012- DECEMBER 2019)

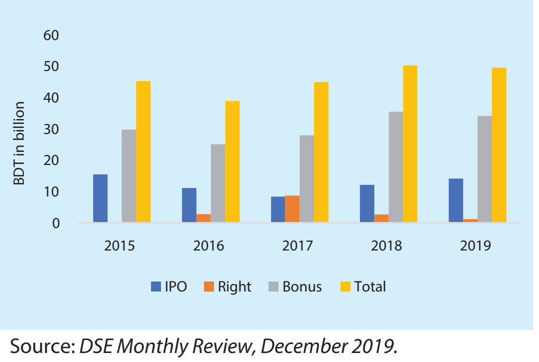


Source: *DSE.*

The overall weighted average price-earnings (P/E) ratio of the DSE declined sharply from 15.2 in December 2018 to 11.8 in December 2019 (Chart 6.15)[81] This nosedive in PE ratio might suggest that market was low-priced during 2019. However, this also might imply investors were not optimistic about the future growth of the listed companies.

6.3.5 INITIAL PUBLIC OFFERING (IPO), RIGHT SHARE & BONUS SHARE

CHART 6.16: CAPITAL INCREASED BY THE SECURITIES TRADED AT DSE (CY15-CY19)



Source: *DSE Monthly Review, December 2019.*

An increase in initial public offering (IPO) deepens the stock market by increasing market capitalization. Chart 6.16 shows the trend in capital increase resulting from IPO, right shares and bonus shares. In the review year, capital increase was driven by an increased volume of IPO but held back by lower issuance of right and bonus share as compared to 2018. Altogether, the capital increased by BDT 49.5 billion in CY19 which was lower than the previous year (BDT 50.3 billion).

In CY19, the issuance of bonus shares was the main contributor of capital increase. A total of 132 companies listed in DSE increased capital through issuing bonus shares amounting to BDT 34.2 billion in CY19 compared to BDT 35.5 billion for 154 companies in CY18.

6.3.6 DIVIDEND & YIELD

Table 6.2 shows the number of companies, which declared cash dividend decreased to 140 in CY19 from 179 in CY18. Also, the number of companies, which declared stock dividend declined to 132 in CY19 from 154 in the previous year. Conversely, the number of companies that did not declare any dividend increased to 29 in CY19 from 28 in CY18.

TABLE 6.2: COMPARISON OF DIVIDEND AND YIELD

Particulars	2017	2018	2019
No. of companies declared cash dividend	187	179	140
No. of companies declared stock dividend	142	154	132
No. of companies which did not declare any dividend	36	28	29
Yield (%)	3.25	3.58	5.03

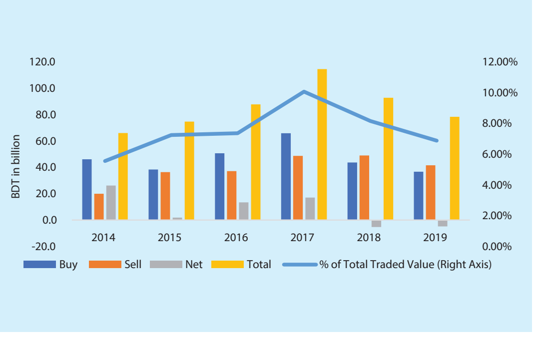
Source: *DSE Monthly Review, December 2019.*

81 The current market price of the stock divided by its earnings per share (EPS) is known as the price-earnings (P/E) ratio which shows how much investors are paying for each unit of earnings.

Dividend yield shows considerable improvement in the review year as it increased to 5.03 percent compared to 3.58 percent in CY18. Since dividend yield is one of the important indications of returns for the investors, regular dividend payment by the companies is crucial for attracting investors and a sound capital market. However, the dividend yield in DSE is lower than the returns of other alternative investments, for example, the rate of Sanchayapatra or Fixed Deposit rate of banks and NBFIs.

6.3.7 FOREIGN TRANSACTION

CHART 6.17: FOREIGN TRADE TURNOVER (CY14-CY19)



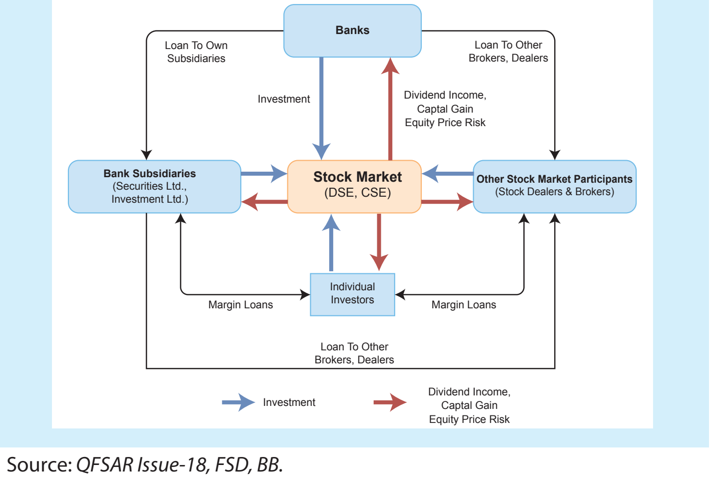
Source: *DSE Monthly Review, December 2019.*

Chart 6.17 shows the trend in foreign trade turnover in DSE. The total trade by foreign investors shrunk to BDT 78.2 billion in CY19 from BDT 92.7 billion in CY18, fell by 15.6 percent in the review year. Total shares bought by foreign investors declined to BDT 36.7 billion in CY19 from BDT 43.7 billion in CY18, recorded a 16.0 percent decline. On the other hand, the total share sold by foreign investors also decreased to BDT 41.5 billion in CY19 from BDT 49.0 billion in CY18. Therefore, net investment became negative in CY19 for the consecutive second CY. Moreover, the value of total foreign trade recorded 6.9 percent of total turnover of DSE during CY19 compared to 8.2 percent in CY18. Lower confidence in the market and expectation over the depreciation of BDT against USD might have been the possible reasons behind the scenario of foreign portfolio investment in DSE in 2019.

6.3.8 INTERLINK BETWEEN BANKING SECTOR & STOCK MARKET

The linkage between the banking sector and the stock market is crucial from the financial stability viewpoint. Flowchart 6.1 shows how banks and capital markets are linked in various ways. Inter-linkages may arise from the banks' investment in the capital market on solo (only bank) as well as the consolidated basis (i.e., banks along with their subsidiaries). Banks' solo investment in the capital market constitutes their own investment in shares, mutual funds, bonds/debentures, and placements. Additionally, loan to own subsidiaries in the capital market, loan to others for merchant banking and brokerage activities, loan to a stock dealer are also considered as banks' solo basis investment exposures. For consolidated exposure, investment in shares, mutual funds, bonds/debentures, placement shares, and margin/bridge loans by subsidiary companies of the bank are taken into account.

FLOWCHART: 6.1 INTERLINK BETWEEN BANKS AND CAPITAL MARKET

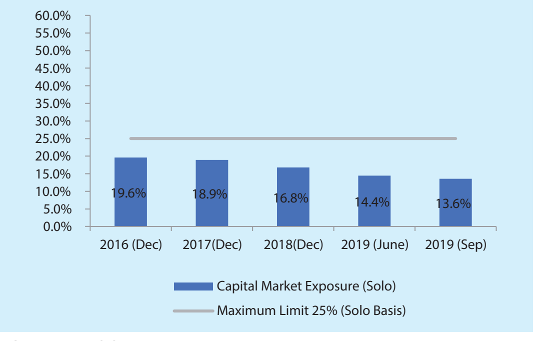


Source: *QFSAR Issue-18, FSD, BB.*

Generally, dividend, interest income, and capital gain are the main earnings of the banks from such investment at the cost of bearing equity price risk. So, the performance of the capital market may have a considerable impact on the banks as a bank may incur a loss from its investment exposure and the risk is higher for higher exposure in the capital market. Considering the current scenario, capital market exposure of banks (in aggregate) is found to remain well below the regulatory limit[82] and has been gradually declining since 2016 (Charts 6.18 and 6.19). This indicates that equity price shock may not pose any major stability threat to the banking sector in the near-term.

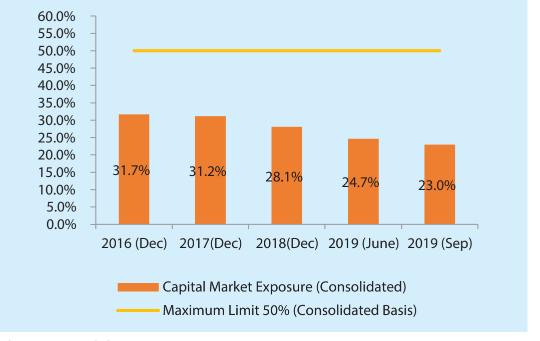
There is another perspective of this inter-linkage. As most private commercial banks (PCBs) are listed in the DSE and banking sector comprises one of the largest segments in that market, performance of those banks (i.e., CRAR, NPL, ROA, ROE) may significantly influence overall performance (e.g., index, market capitalization) of the capital market through their share price channel.

CHART 6.18: TREND IN CAPITAL MARKET EXPOSURES (SOLO) OF BANKS



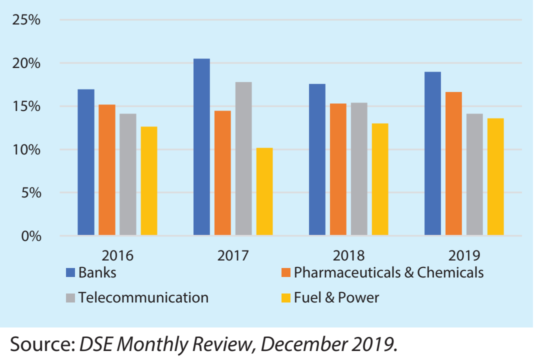
Source: *DOS, BB.*

CHART 6.19: TREND IN CAPITAL MARKET EXPOSURES (CONSOLIDATED) OF BANKS



Source: *DOS, BB.*

CHART 6.20: TOP FOUR SECTORS' MARKET CAPITALIZATION IN DSE (CY16-CY19)



Source: *DSE Monthly Review, December 2019.*

Chart 6.20 shows the market capitalization of top-four sectors in DSE over the last four years. The chart shows that the banking sector claimed the highest market capitalization each year which reflects the dominance of the banking sector in DSE. Therefore, any stress on the banking sector may adversely affect and/or have a contagion effect on the stock market. Both market capitalization and index may fall sharply due to the fall in bank's share price.

82 The maximum allowable limit to investment in the capital market is 25 percent and 50 percent of the prescribed capital (sum of paid-up capital, statutory reserve, retained earnings and share premium) on solo and consolidated basis respectively.

Chapter 7

FINANCIAL INFRASTRUCTURE

A well-functioning effective financial infrastructure is a core part of all financial systems. It enables financial activities including financial intermediation by facilitating the payment and settlement of transactions among participating financial institutions at an affordable cost. By this mechanism, the liquidity of financial market is mobilized efficiently thereby enhancing financial sector's stability. Modern financial infrastructure is heavily technology based. Any failure or disruption of a financial infrastructure due to inefficient use of technology could destabilize financial markets and cause widespread economic disruption leading to systemic risk. So, the regulators remain always active to adopt the technological innovations to mitigate the threats or risks associated with ever-changing technologies. Being the regulator of the financial system of Bangladesh, Bangladesh Bank has always been vigilant for the smooth functioning of its financial infrastructure through formulation of effective regulations and also by ensuring congenial atmosphere for all concerned stakeholders. To foster the smooth performance of the financial market and promote banking services to remote areas and unbanked population of the country, Bangladesh Bank has introduced several sophisticated payment system platforms consistent with international standards.

7.1 ELECTRONIC BANKING OPERATIONS

The banking industry in Bangladesh had gone through massive transformation from manual to electronic banking solution for the last two decades. Banks have automated their branch network, developed corporate intranet system, digitized internal communication and introduced core banking system (CBS) to deliver internet banking, online banking and e-payment services quickly and also have smoothen transaction process by using electronic payment settlement systems that eventually helped increase country's economic activities manifold.

Except SDBs, almost all other bank branches (99.21 percent) had online banking facilities in 2019 (Table 7.1). In particular, FCBs had 100 percent online banking facilities, followed by PCBs (99.98 percent) and SCBs (98.12 percent). During this period, BDT 658.84 billion of fund had been transacted through online banking services.

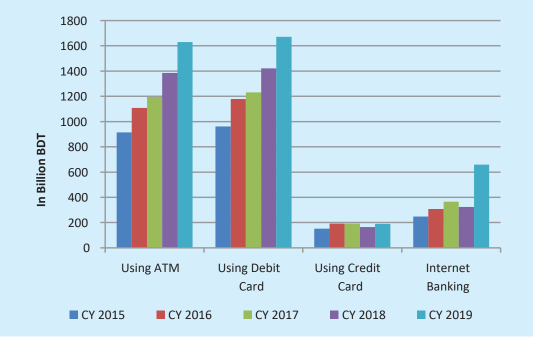
TABLE 7.1: ONLINE BANKING SCENARIO

As of December, 2019

Type of Bank	No. of ATMs	No. of Total Branches	No. of Branches with Online Coverage	Percent of Online Branches
SCBs	240	3,777	3,706	98.12%
SDBs	6	1,421	439	30.89%
PCBs	7,046	5,283	5,282	99.98%
FCBs	139	64	64	100.00%
Total	7,431	10,545	9,491	90.00%

Source: *Sustainable Finance Department, BB.*

CHART 7.1: TOTAL VOLUME OF ELECTRONIC BANKING TRANSACTION



Source: *Payment Systems Department (PSD), BB.*

As Chart 7.1 shows, the volumes of transactions using ATMs and usage of debit cards have been increasing sharply since CY15. However, growth of credit card usage remained sluggish, though a slight growth was observed in CY19 after negative growth in CY18. Notably, CY19 experienced impressive growth in internet banking.

7.2 NATIONAL PAYMENT SWITCH BANGLADESH (NPSB)

National payment Switch Bangladesh (NPSB) was first introduced in Bangladesh in 2012 to facilitate inter-bank card-based or online retail transactions through different delivery channels like Automated Teller Machine, Point of Sales and Internet Banking Fund Transfer (IBFT). It geared up the card-based payment networks substantially and promoted e-commerce throughout the country. The NPSB is currently connected to 52 banks for ATM, 51 banks for POS and 23 banks for internet banking transactions. The number and volume of the interbank transactions through NPSB are growing with great speed.

Approximately 30.70 million transactions amounting BDT 211.25 billion had been settled through NPSB in CY19 recording a growth of 27.90 percent and 36.29 percent in the number of transactions and amount of payments respectively.

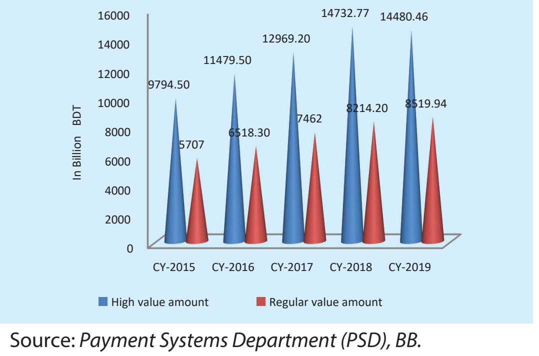
7.3 BANGLADESH AUTOMATED CLEARING HOUSE (BACH)

BACH is the first major milestone of BB towards digitalizing the payments landscape of the country. It is an automated inter-bank clearing facility for retail payments that clears both paper and instruction based payments via Bangladesh Automated Cheque Processing System (BACPS) and Bangladesh Electronic Funds Transfer Network (BEFTN). Both the systems operate in batch processing mode, transactions received from the banks during the day are processed at a pre-fixed time and settled through a single multilateral netting figure on respective bank's book maintained with BB.

7.3.1 BANGLADESH AUTOMATED CHEQUE PROCESSING SYSTEM (BACPS)

Automated Cheque Processing System (ACPS) is used to reduce the cheque clearing time. Through faster reconciliation and fraud prevention, it facilitates banks to provide better and faster customer service with increasing operational efficiency. Two sessions, namely High Value (HV) and Regular Value (RV) are available daily under BACPS. HV session accommodates cheques with a minimum value of BDT 5 lac while RV session accommodates cheques of any amount.

CHART 7.2: AUTOMATED CHEQUE CLEARING OPERATIONS



Source: *Payment Systems Department (PSD), BB.*

The volume of high value transactions decreased by 1.71 percent in CY19, compared to the same in CY18. During the same period, regular value transactions increased by 3.72 percent.

The total amount of High Value (HV) and Regular Value (RV) transactions were approximately BDT 14,480.46 billion and BDT 8,519.94 billion respectively in CY19. Chart 7.2 shows an upward trend in regular value transactions for the last five years. The trend for high value cheque processing experienced a slight decrease in CY19 after a consistent rise from CY15 to CY18.

7.3.2 BANGLADESH ELECTRONIC FUNDS TRANSFER NETWORK (BEFTN)

Bangladesh Electronic Funds Transfer Network (BEFTN) is the central clearing system that facilitates settlement among the participating banks. This system is introduced to reduce paper-based transaction and increase electronic payment. The system receives entries from Originating Banks (OR) and distributes the entries to Receiving Banks (RB). BEFTN settles various credit transactions such as foreign and domestic remittances, social security payments, payroll, company dividends, bill payments, corporate payments, government tax payments, person to person payments etc. and also similarly settles debit transactions such as utility bill payments, insurance premium payments, club/ association payments, EMI payments etc. Most of the government payments are processed through BEFTN.

In CY19, on an average 101,389 transactions were settled per day through BEFTN, which was 49.20 percent higher than that of CY18. Approximately BDT 2,000.50 billion was processed through BEFTN, which was 16.12 percent higher than that of CY18.

7.4 REAL TIME GROSS SETTLEMENT (RTGS) SYSTEM

RTGS is an instant electronic settlement system where the transfer of funds takes place from one bank to another bank on real-time basis. The system is designed to settle high value (more than or equal to BDT 100,000) local currency and foreign currency transactions. The system is currently allowed to settle local currency only. However, domestic foreign currency transactions are expected to be launched soon. Along with individual interbank transactions, there are provisions for Deferred Net Settlement (DNS) (i.e. BACPS, BEFTN or NPSB) transactions to be settled through RTGS system.

Out of total 11000 bank branches of 58 banks in the country, more than 8000 online branches of 56 scheduled banks are connected to this system till 2019 and the coverage of branches has been increasing gradually. In CY19, the number of transactions and the volume of transaction increased by 114.06 percent and 98.67 percent respectively through RTGS from CY 18; which were accounted for 1,848,079 transactions in terms of number and BDT 13,260.96 billion in terms of volume during the review year.

7.5 MOBILE FINANCIAL SERVICES (MFS)

The last decade experienced a rapid expansion of mobile phone networking, an increased number of mobile phone users, and an improvement in IT infrastructure, which facilitate the growth of mobile financial services in Bangladesh. MFS in Bangladesh is a bank-led model. BB allowed some MFS providers for disbursement of inward foreign remittance, cash in/out facilities using mobile phone accounts through agents/bank branches/ATMs/mobile operators' outlets, person to business payments, Government to person payments. The journey of MFS began in 2011.

TABLE 7.2: THE GROWTH OF TRANSACTIONS THROUGH MFS

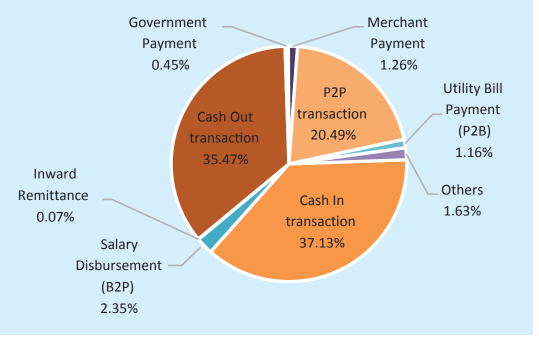
(In Million BDT)

Category	CY18	CY19	Growth
Inward Remittance	3,605.80	3,151.90	-12.6%
Cash In Transaction	1,551,994.90	1,613,367.30	4.0%
Cash Out Transaction	1,432,646.50	1,541,195.70	7.6%
P2P Transaction	591,109.70	890,089.40	50.6%
Salary Disbursement (B2P)	67,108.50	101,888.30	51.8%
Utility Bill Payment (P2B)	33,485.90	50,234.50	50.0%
Merchant Payment	29,998.00	54,595.90	82.0%
Government Payment	23,110.20	19,741.00	-14.6%
Others	55,800.40	70,635.30	26.6%
Total	3,788,859.90	4,344,899.30	14.7%

Source: *PSD, BB.*

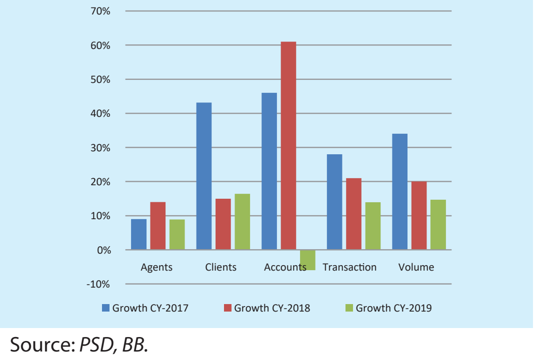
In CY19, both inward remittance and Government payments through MFS experienced downward growth, which were -12.6 and -14.6 percent respectively. Person to person payments, disbursement of salary (mostly to RMG workers) and utility bill payments together had around 50.0 percent growth. Merchant payments had the highest growth of 82 percent.

CHART 7.3: CATEGORY-WISE SHARE OF TRANSACTIONS OF MFS IN 2019



Source: *Payment Systems Department (PSD), BB.*

CHART 7.4: GROWTH OF MFS



Source: *PSD, BB.*

As showed in Chart 7.3, people use MFS mostly as a cash transfer service. Among different categories of MFS, highest volume took place in 'Cash In' followed by 'Cash Out' operations (37.13 percent and 35.47 percent respectively).

MFS in Bangladesh is a bank-led model. 16 banks provided MFS to 78.59 million of registered clients through a total of 965,471 agents in CY19. Both the client base and agents network increased gradually during the review year.

In CY19, except the number of clients, all other aspects of MFS had negative growth compared to CY18. Particularly, the number of accounts, transactions and volume of MFS decreased largely due to stringent regulatory measures introduced by BB to check the abuses of MFS.

To foster digital payment service, BB also issued licenses to Payment System Operators (PSO) and Payment Service Providers (PSP). Presently, five non-bank institutions are facilitating e-commerce and inter-bank card-based transactions. On the other hand, two non-bank institutions provide e-wallet under PSP license. Customers or merchants can perform all types of digital transactions through this e-wallet.

7.6 CENTRAL DEPOSITORY SYSTEM

Central Depository System (CDS), operated by Central Depository Bangladesh Limited (CDBL), is a major financial market infrastructure. Engaged in operations of capital market of Bangladesh, it assists listed companies in handling of script less delivery, settlement and transfer of ownership of securities through the computerized book-entry system. The agents of CDBL, which extend depository services, are called Depository Participants (DPs).

At end-December 2019, there were 348 full-fledged DPs, 4 full-fledged exchange DPs, 97 custodian DPs and 44 treasury DPs registered under CDBL. In addition, 424 issuers have got International Securities Identification Numbers (ISINs) from CDBL. The number of active BO accounts as of end-December 2019 was around 2.81 million.

7.7 RECENT AND UPCOMING DEVELOPMENTS

(a) Online Payment Gateway Service

Several private commercial banks and couple of companies established payment gateways for e-commerce entrepreneurs that enabled the e-merchants to receive their sales proceeds 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 a 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.

BB has drafted the **Payment and Settlement Systems Act** which is now under process of 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 to collect inward remittance through PayPal to promote freelancers.

(b) Payment Systems Oversight

Payment systems oversight is a central bank function through which BB monitors and supervises payment and settlement systems of the country. It is one of the key functions of BB to achieve the objectives of safety and efficiency of payment systems and induce changes where necessary.

Payment Systems Department of BB formally started oversight functions from the year 2016. To strengthen and streamline these activities, BB has formulated a **"Payment Systems Oversight Policy Framework"** which has been enforced since January 2019. This Policy Framework helped effective oversight of payment instruments, procedures and all the related parties involved. It explains why and how BB will oversee its payment and settlement systems and also recognizes the fields of BB's oversight responsibilities.

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 regular activities, payment system oversight encompasses some ad hoc activities such as assessment of the monitoring systems and their compliances 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: Introduction of FC clearing is one of the major improvements of Bangladesh Automated Cheque Processing System in recent days. The existing Automated Cheque Clearing Systems has been replaced by a new one. In order to improvise the existing system, all participating scheduled banks in the Bangladesh Automated Clearing House (BACH) were advised to follow the BACPS Operating Rules and Procedures V 2.0 for their clearing and settlement operation as per PSD Circular No-07 dated 05 December 2019.

MFS Operation: MFS regulations have been published on 30 July 2018. Implementation of MFS interoperability is in progress. Interoperability would be live after the ongoing testing phase.

EMV Standardization: EMV stands for Europay, Master Card and Visa, the three companies that originally set the standard. This chip-based standardization process for all local cards is going on in full swing.

PCI-DSS: Graduation of the payment system of Bangladesh to PCI-DSS compliant environment is under process.

Ensuring a secured payment system is one of the core responsibilities of a central bank. In a globalized market, commercial banks, as well as the central bank, have to make international financial transactions regularly that often create cyber security and operational risks. However, BB has always been vigilant over this issue and promoting awareness among all commercial banks to ensure proper cyber security measures. In CY19, the payment infrastructure did not pose any systemic risk for the financial system of Bangladesh due to stringent monitoring and supervision by BB. Some domestic frauds and forgeries were noticed, but they did not create any major risk that could adversely affect the financial stability of the country.

Chapter 8

FOREIGN EXCHANGE MARKET

During the review period, foreign exchange (FX) market of Bangladesh was mostly stable. FX assets and liabilities of banks increased while FX contingent liabilities decreased as of end-December 2019. In CY19, the interbank (local) FX turnover decreased compared to that of CY18. During the period, L/C opening decreased, but L/C settlement remained high, thereby exerting pressure on the FX market. However, strong growth in wage earners' remittances along with BB's sale of USD in the market eased down the pressure to some extent and helped to manage the depreciation pressure on the nominal exchange value of BDT against USD. Gross FX reserves also increased and appeared to be adequate in terms of import coverage and ability to withstand probable external shocks in the near future. Yet, real effective exchange rate (REER) index experienced further appreciation during the year, reflecting a diminishing export competitiveness of the country.

8.1 FOREIGN EXCHANGE ASSETS AND LIABILITIES

Both FX denominated assets and liabilities constituted around 7.7 percent of total banking sector assets and liabilities respectively in CY19. Due to the limited exposure, banks' FX risks remained low during the review period.

FX denominated assets of the banking sector are mainly composed of cash holdings, BB clearing account, debit balance in Nostro accounts, foreign currency bills purchased, investment in off-shore banking units (OBUs) and others. At end-December 2019, banks' total FX assets increased by 67 percent and stood at USD 14.7 billion from USD 8.8 billion at end-December 2018. Although banks' FX exposures have been increasing gradually along with the increasing international trade and finance, it remained around 7.7 percent of the total banking sector assets as of end-December 2019. Chart 8.1 shows that investments in OBUs and debit balances in Nostro accounts constituted the highest shares of FX assets during CY18 and CY19, excluding the other items. Share of investments in OBUs declined by 10.6 percentage points to reach 15.2 percent while share of debit balance in Nostro accounts decreased by 7.7 percentage points to secure 11.7 percent in CY19. This decrease in the share of investments in OBUs may help reduce banks' risks from unfavorable exchange rate shocks.

CHART 8.1: YEAR-WISE FX ASSET STRUCTURE

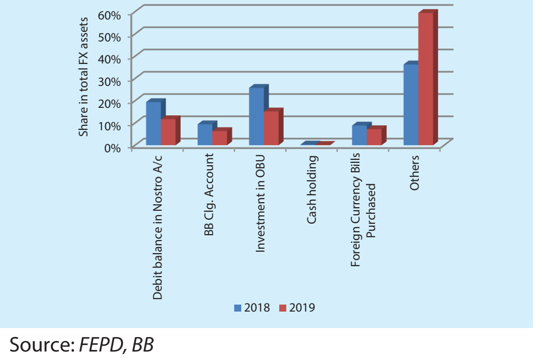
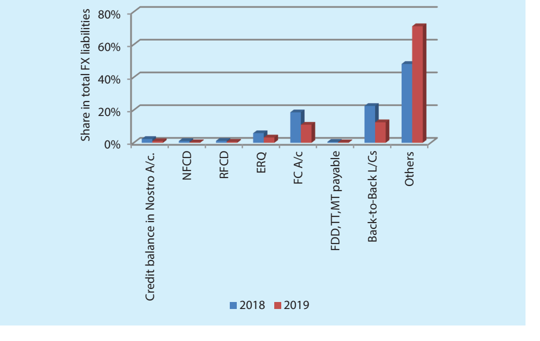


CHART 8.2: YEAR-WISE FX LIABILITY STRUCTURE



Source: *FEPD, BB*

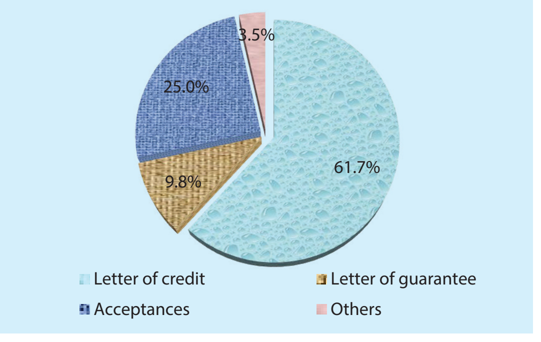
Chart 8.2 demonstrates component-wise segregation of FX denominated liabilities, which are mainly composed of credit balances in Nostro accounts, back-to-back L/Cs fund awaiting for remittance, balances in customer accounts (such as, non-resident foreign currency deposit (NFCD), resident foreign currency deposit (RFCD), exporters' retention quota (ERQ), FC accounts, foreign demand draft (FDD), telegraphic transfer (TT) and mail transfer (MT) payables), and others. FX liabilities recorded an 80.5 percent increase from USD 7.7 billion at end-December 2018 to USD 13.9 billion at end-December 2019. FX liabilities constituted about 7.7 percent of total banking sector liabilities as of

December 2019. In CY19, back-to-back L/Cs fund awaiting for remittance and FC accounts shared 12.5 percent and 11.0 percent respectively of total FX liabilities while 71.2 percent was held for other purposes. Share of all the components of FX liabilities except other payables declined in CY19 compared to those of CY18. Sharp growth of FX liabilities in the review year may create both the liquidity risk and foreign exchange risk when their payments come due.

8.2 FOREIGN EXCHANGE CONTINGENT LIABILITIES

FX contingent liabilities decreased in CY19 compared to that of CY18.

CHART 8.3: COMPONENTS OF FX CONTINGENT LIABILITIES (END-DECEMBER 2019)



Source: *FEPD, BB*

FX denominated contingent liabilities, which is a dominant portion of total banking sector off-balance sheet exposures, decreased by 7.6 percent from USD 61.5 billion at end-December 2018 to USD 56.8 billion at end-December 2019.

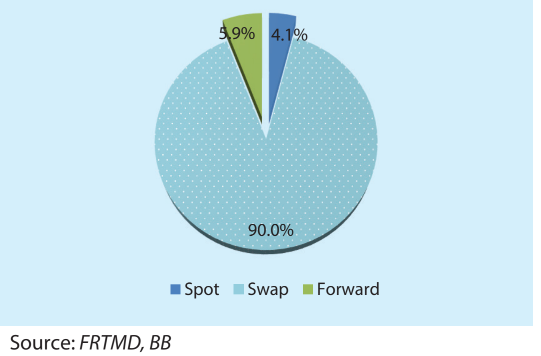
FX contingent liabilities were composed of four major accounts: letter of credits (L/Cs), letter of guarantees, acceptances and others. These four components accounted for 61.7 percent, 9.8 percent, 25.0 percent and 3.5 percent respectively in CY19. Decline in FX contingent liabilities may lessen strain on the country's FX reserve and thus contribute to the stability of the foreign exchange market.

8.3 INTERBANK (LOCAL) FX TURNOVER

Interbank (local) FX turnover, led by swap transactions, was recorded at USD 16.0 billion in CY19. No abrupt volatility was observed in the FX turnover while FX net open position remained well below the approved limit of BB.

Interbank (local) FX market has been dominated by swap transactions since 2015. This is due to the fact that swap transactions provided the market participants more flexibility in FX liquidity management.

CHART 8.4: COMPONENTS OF INTERBANK FX TURNOVER (CY19)

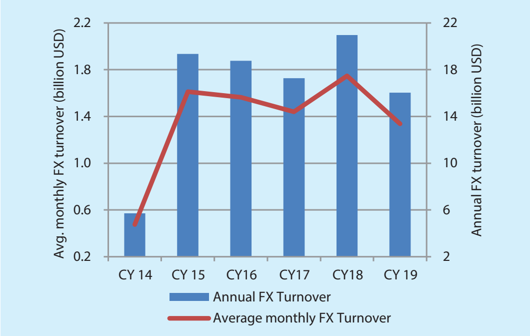


Source: *FRTMD, BB*

In CY19, 90.0 percent of total interbank (local) FX turnover was represented by swap transactions followed by 5.9 percent forward transactions and 4.1 percent spot transactions (Chart 8.4). Almost 93.7 percent of these transactions were executed in USD. Compared to CY18, swap and spot transactions declined by 18.3 and 72.3 percent respectively, while forward transactions increased by 0.5 percent in CY19.

Total interbank (local) FX turnover decreased to USD 16.04 billion in CY19 from USD 20.97 billion in CY18, recording a decline of 23.5 percent. The monthly average turnover of interbank (local) FX transactions was USD 1.33 billion in CY19, which was USD 1.75 billion in CY18 (Chart 8.5). The monthly FX turnover did not show any notable volatility during CY19, though the turnover dipped slightly during the 1st half of the year (Chart 8.6).

CHART 8.5: ANNUAL FX TURNOVER



Source: *FRTMD, BB*

CHART 8.6: MONTHLY FX TURNOVER (CY19)

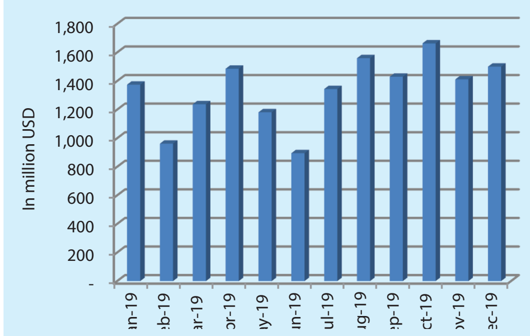
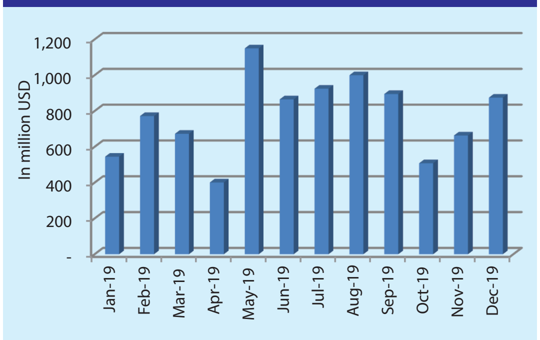


CHART 8.7: FX NET OPEN POSITION (CY19)



Source: *FEPD, BB*

The overall FX net open position was USD 874.3 million at end-December 2019. The highest balance of USD 1,149.6 million was recorded at end-May 2019, while the lowest balance of USD 400.8 million was observed at end-April 2019. The FX net open position was less volatile during CY19 compared to CY18. It also remained well below the approved limit[83] set by Bangladesh Bank and thereby helped minimize the potential exchange rate risks.

8.4 ADEQUACY OF FX RESERVES

Gross FX reserves of Bangladesh stood at USD 32.7 billion at end-December 2019. This amount is deemed to be adequate in terms of import coverage and sufficient to withstand plausible external shocks in the near future.

Adequacy of FX reserves is an important parameter in assessing an economy's ability to absorb external shocks. There are different benchmarks for measuring FX reserve adequacy; however, assessing reserve adequacy based on a single indicator may not ensure a country's resilience against foreign exchange shock. 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 becoming due within 12 months (short-term external debt).[84] Considering these benchmarks, the reserve adequacy position of Bangladesh has been examined.

The gross FX reserves increased by 2.1 percent from USD 32.0 billion at end-December 2018 to USD 32.7 billion at end-December 2019. The reserve is sufficient to cover about 7 months' import payments (Chart 8.8), which is much higher than the international benchmark of meeting three months' import payments. Also, in terms of reserves to M2 (broad money) criteria[85], Bangladesh has the required level of reserves. Chart 8.9 shows that though reserves to M2 ratio decreased in CY19, still the ratio (21.4 percent) remained above the acceptable benchmark of 20 percent.

83 Approved limit of NOP is currently 20 percent of Tier-1 and Tier-2 capital.

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

85 Which indicates an economy's ability to withhold external shocks and ensures convertibility of local currency.

CHART 8.8: IMPORT COVERAGE OF FX RESERVE

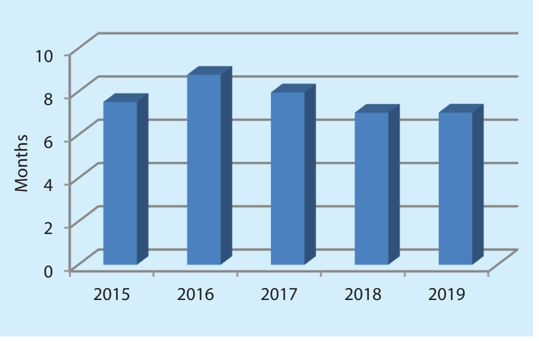


CHART 8.9: RESERVES TO M2 RATIO

Source: *Monthly Economic Trend, BB.*

In terms of short-term external debt to FX reserves criteria, which indicates safety cushion once the ratio is equal to or less than 100 percent, Bangladesh had adequate reserve to cover the external debts coming due in next 12 months (Chart 8.10). In CY19, the ratio stood at 29.8 percent, well below the standard yardstick of 100 percent.

CHART 8.10: SHORT-TERM EXTERNAL DEBT TO RESERVE RATIO

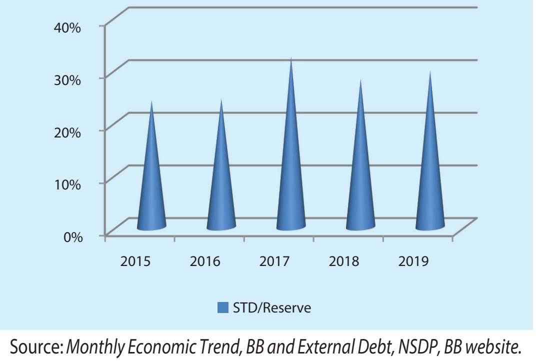
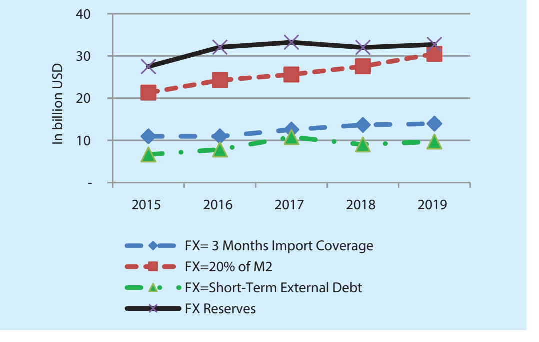


CHART 8.11: RESERVES ADEQUACY MEASURES FOR BANGLADESH



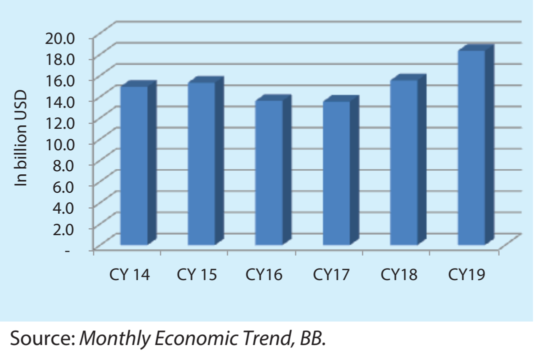
Source: *Monthly Economic Trend, BB and External Debt, NSDP, BB website.*

Chart 8.11 summarizes the above-mentioned three criteria. Over the years, FX reserve of Bangladesh seemed to be adequate to cover each benchmark of reserve adequacy individually in case of any adverse currency shocks. Moreover, FX reserves as of end-December 2019 were adequate to cover three months' import payments and short-term external debt together, which is a positive sign from financial stability standpoint.

8.5 WAGE EARNERS' REMITTANCE

Wage earners' remittance recorded a new peak in CY19 providing stability in the FX market.

CHART 8.12: WAGE EARNERS' REMITTANCE



Source: *Monthly Economic Trend, BB.*

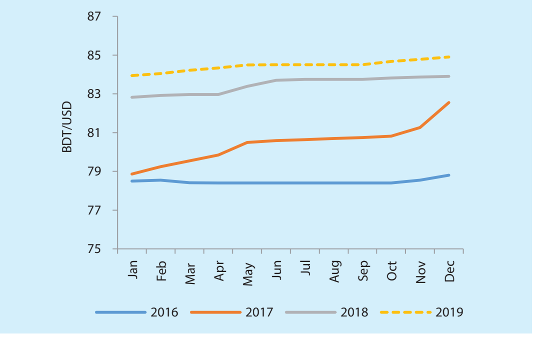
The remittance inflow increased markedly from USD 15.5 billion in CY18 to USD 18.3 billion in CY19. The growth was 18.0 percent in CY19 compared to CY18. Record volume in remittance inflow in the review year helped maintain stability in the supply side of the FX market, thereby providing resilience to external shocks.

8.6 EXCHANGE RATE MOVEMENT

Nominal exchange rate was largely stable throughout the review year.

Nominal exchange rate was mostly stable in CY19 even with a deprecation of 1.2 percent. The depreciations recorded in CY18 and CY17 were 1.6 percent and 4.8 percent respectively. The stability in the nominal exchange rate in CY19 might be partly attributable to the central bank's support to the foreign exchange market.

CHART 8.13: EXCHANGE RATE MOVEMENT



Source: *Monthly Economic Trends, BB.*

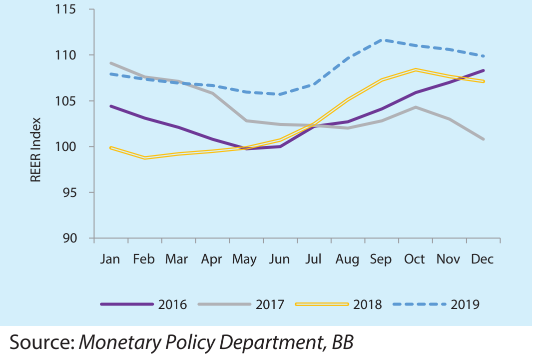
Chart 8.13 shows that the monthly average nominal BDT/USD exchange rate in CY19 (dotted line) was slowly and steadily depreciating throughout the CY19. The maximum exchange rate (BDT 84.90 per USD) was recorded in December 2019 while the minimum (BDT 83.94 per USD) was recorded in January 2019. The difference between maximum and minimum BDT/USD was 0.96 in CY19, which was narrower compared to 1.08 of CY18 and 3.70 of CY17.

8.7 MOVEMENT OF REAL EFFECTIVE EXCHANGE RATE (REER)

Real effective exchange rate (REER) experienced mild appreciation amid some fluctuations in CY19.

Chart 8.14 shows the trend of REER movement in CY19 (dotted line) along with those of last three consecutive calendar years. REER[86] index registered an appreciation of 2.6 percent during the review year. The index steadily declined during the first half of the review year and reached 105.70, the lowest point of the year. Thereafter, it started to rise and peaked at 111.66 in September before reaching 109.89 in December. Difference between the highest and lowest REER index was 5.96 in CY19, while it was 9.64 in CY18.

CHART 8.14: REER MOVEMENT



Source: *Monetary Policy Department, BB*

Its movement was least volatile in the last four years, as the standard deviation of REER was 2.1 in CY19, while it was 3.8, 2.6 and 2.7 in CY18, CY17 and CY16 respectively. However, appreciation of REER in the last two consecutive years might have led to lessening in the export competitiveness of the country.

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

L/C opening decreased for the second consecutive year, but L/C settlement remained high in the review year.

The total value of L/C opening for import decreased to USD 57.0 billion in CY19 from 58.5 billion in CY18, registering a decline of 2.5 percent during the review year. However, the value of L/C settlement slightly increased by USD 0.6 percent and reached USD 54.5 billion in CY19 from USD 54.1 billion in

86 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.

CHART 8.15: L/C OPENING

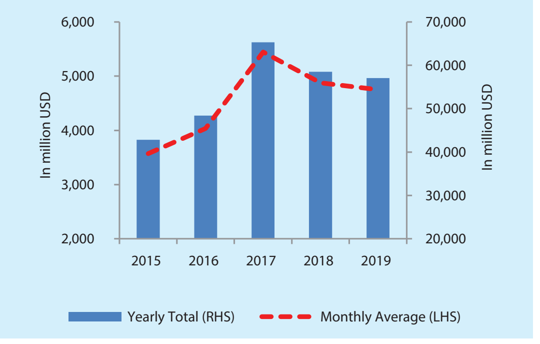
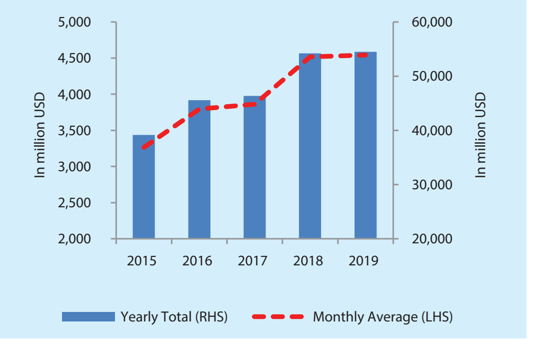


CHART 8.16: L/C SETTLEMENT



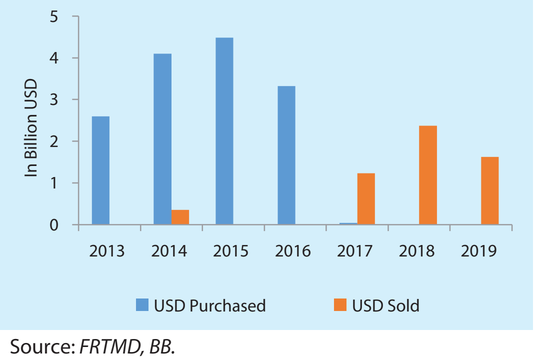
Source: *Major Economic Indicators, BB.*

CY18. Like the previous year, the high value of L/C settlement in the review year put some demand side pressure on foreign exchange market.

8.9 INTERVENTION IN FX MARKET BY BB

Bangladesh Bank sold USD 1.62 billion to ease the FX market liquidity in CY19.

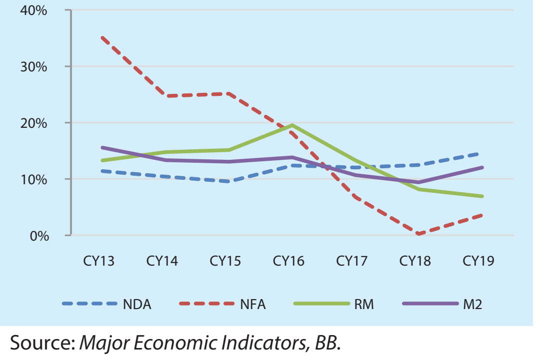
CHART 8.17: INTERVENTION IN FX MARKET BY BANGLADESH BANK



Source: *FRTMD, BB.*

Though Bangladesh's exchange rate is market-determined, occasionally it becomes necessary for the central bank to intervene into the foreign exchange market to maintain the stability in the nominal exchange rate. In CY19, the central bank sold USD 1.62 billion compared to USD 2.37 billion in CY18 and USD 1.23 billion in CY17 to support the foreign exchange market (Chart 8.17). During the review year, the central bank did not purchase any USD from the market. The extent of required intervention during the review year was lesser than the preceding year largely due to strong inflow of wage earners' remittances. However, the size of the support by the central bank during CY19 reflects some pressure on foreign exchange market from the demand side.

CHART 8.18: NDA, NFA, RM AND M2 MOVEMENT



Source: *Major Economic Indicators, BB.*

This intervention in the FX market by central bank may have impact on money supply and thereby price level, interest rate and financial system's liquidity. As Chart 8.18 shows, the growth of Reserve Money (RM) has slowed down since CY17 when BB's sale (net) of USD turned positive. RM growth was 6.9 percent in CY19 which was slower than the target of 9.8 percent. However, broad money (M2) recorded an increase of 12.0 percent surpassing the target of 11.3 percent. This can be mainly attributable to 14.6 percent and 3.6 percent increase of net domestic assets (NDA) and net foreign assets (NFA) respectively, the two components of M2. The growths of NDA and NFA are largely influenced by high government borrowing from banking system and strong inflow of wage earners' remittance respectively during the review year.

Chapter 9

INSURANCE SECTOR IN BANGLADESH

Being an integral part of the financial system, insurance sector is vital for the financial stability of the country. This sector plays a significant role by providing insurance coverage not only to domestic business but also to the external sector risk such as the rapidly expanding international business. Since the economy of Bangladesh is being continuously integrated into the World Economy through international trade and commerce, this sector appears to get more attention over the years. On the domestic front, insurance sector is the major supplier of fund in local deposit market, fixed income securities market and stock market. Poor performance of this sector may create vulnerability and therefore, has implication for the stability of these inter-linked and inter-dependent markets. On the other hand, the role of fund mobilization in financial intermediation as well as risk insulation by the insurers promotes stability in the financial system of Bangladesh. Hence, evaluation of insurance sector deserves proper facilitation and monitoring from financial stability point of view.

Mentionable that business of insurance companies is quite different than that of banks and other financial institutions. An important difference between banking and insurance lies in the balance sheet structure. Generally, the average maturity of life insurance companies' liabilities is longer than that of their assets. It makes them less vulnerable to customer runs, while providing the opportunity to invest in long-term instruments of banks and equity market. Therefore, investment behavior of insurance sector and its soundness should receive notable attention since insurance not only protects policyholders but also contributes to the stability of financial system as a whole.

Together with one public company and one foreign company, 32 life insurance companies; and, including one public company, 46 general insurance companies are providing their services now in Bangladesh. In general, insurers in Bangladesh offer life insurance, general insurance, reinsurance, micro-insurance, and Takaful or Islami insurances with different schemes and endowments. The proactive policy support from the government is also continuing to promote the insurance sector. It is expected that insurance will be flourished as a very important component of the country's financial system in near future. So, as a financial stability point of view, it is important to analyze the behavior of this sector and its interconnectedness with the rest of the financial system to mitigate systemic risks that may arise from the potential domino effects created by the insolvency of a part or whole of the financial system.

9.1 INSURANCE SECTOR DEVELOPMENT: PENETRATION AND DENSITY

In this document, insurance penetration ratio is considered as a measure of insurance sector development in Bangladesh. The ratio of insurance premium underwritten in a particular year to the GDP is taken into account to estimate insurance penetration ratio. Considering the first measure, i.e., insurance premium to GDP, it is found that insurance penetration in CY 2018[87] slightly declined to 0.58 percent from 0.60 percent in CY2017 (Chart 9.1). However, there is a small variation in terms of two categories of insurance services. While non-life insurance penetration ratio remained static (0.19 percent), life insurance penetration declined to 0.40 percent in CY18 from 0.41 percent in CY17. Furthermore, the overall penetration ratio (0.58 percent) of the sector in 2018 appeared to be considerably low compared to other neighboring countries[88]. Nevertheless, insurance density ratio (i.e., average per capita spending on gross insurance premium) increased to USD 9.64 in 2018 from USD 9.43 in 2017, although it was also low compared to other South-Asian countries[89]. The slow growth of insurance premium compared to the growth of GDP resulted a drop in penetration ratio,

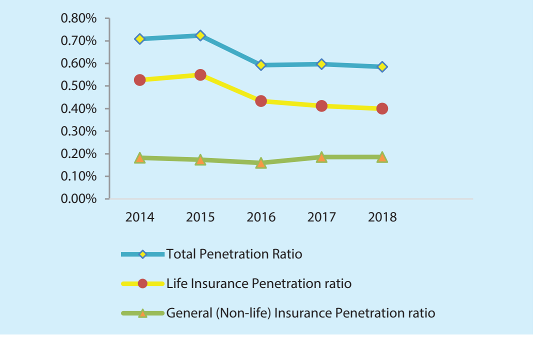
87 Data available up to December 2018.

88 The penetration ratios for India, Pakistan, and Sri Lanka were 3.70 percent, 0.93 percent, and 1.15 percent respectively in 2018.

89 The density ratio (in USD) of India, Pakistan, and Sri Lanka were USD 74, 13, and 49 in 2018.

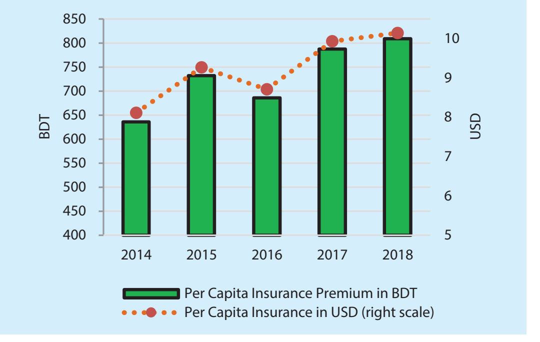
while, the slow growth of population compared to the growth of insurance premium resulted the rise of insurance density ratio. Main reason behind this low density ratio is that a majority of people in Bangladesh remain outside the insurance coverage.

CHART 9.1: INSURANCE PENETRATION



Source: *BIA*

CHART 9.2: INSURANCE DENSITY RATIO



Source: *BIA, Population Census BBS*

9.2 PREMIUM GROWTH AND ASSETS SIZE

Gross premiums in life and general (non-life) insurance sector exhibited their growth in tandem. Chart 9.3 shows that gross premiums of insurance companies are gradually increasing over the years. In 2018, gross premiums in life insurance and non-life insurance stood at BDT 89.9 billion and BDT 41.8 billion respectively compared to the same of BDT 81.3 billion and BDT 36.7 billion in 2017. Overall, total gross premium in insurance sector grew by 11.6 percent in 2018 to stand at BDT 131.7 billion. This was possible due to better distribution network of two state-owned corporations- Shadharan Bima Corporation (SBC) and Jiban Bima Corporation (JBC)-and also setting up a large number of private life and non-life insurance companies.

CHART 9.3: TREND IN GROSS PREMIUM AND ITS GROWTH

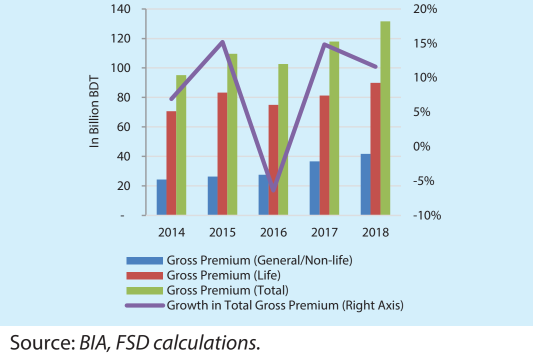
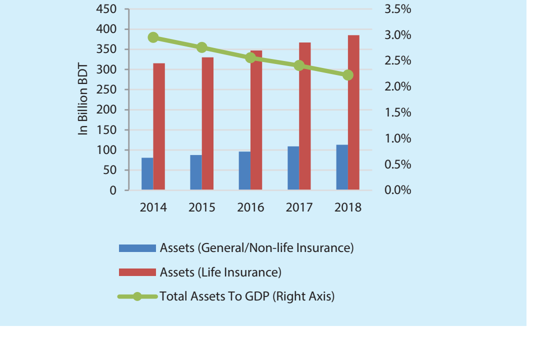


CHART 9.4: TREND IN INSURANCE SECTOR ASSETS



Source: *BIA, FSD calculations.*

Assets for both life and general (non-life) insurance companies also exhibited persistent growth in 2018. Chart 9.4 shows that in 2018, assets of life insurance and non-life insurance stood at BDT 384.9 billion and BDT 113.1 billion respectively compared to the same of BDT 366.8 billion and BDT 109.3 billion in 2017. Overall, total assets of insurance sector grew by 4.6 percent in 2018 to stand at BDT 497.9 billion. The growth is consistent but compared to the pace of GDP growth, asset growth of the insurance sector remains fairly slow. The total assets of insurance sector as a percentage of GDP stood at 2.2 percent in 2018, compared to that of 2.4 percent in 2017. As like as market share of the preceding four years, the life insurance companies held more than three fourth of the total assets of the insurance sector (Chart 9.5).

CHART 9.5: SHARE OF INSURANCE SECTOR'S TOTAL ASSETS

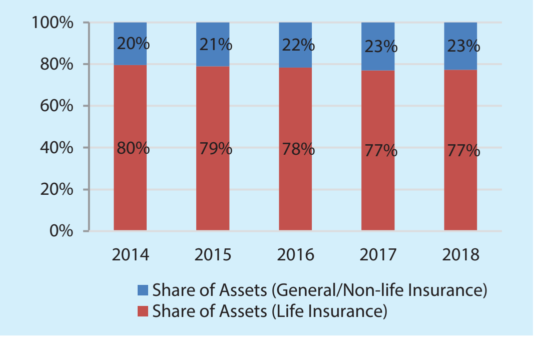
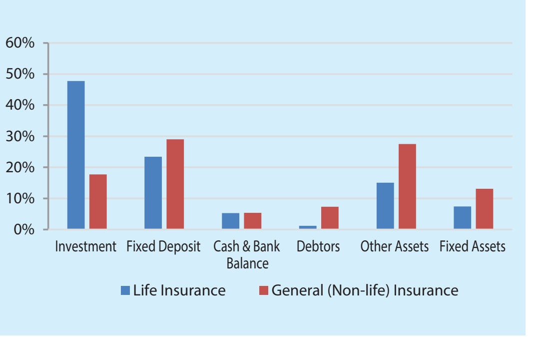


CHART 9.6: ASSET STRUCTURE OF LIFE AND GENERAL INSURANCE COMPANIES (CY-18)



Source: *BIA, FSD calculations.*

Chart 9.6 illustrates the asset structures of the life and general (non-life) insurance companies in 2018. Investment secured the top position with 47.8 percent share in the assets of life insurance sector followed by fixed deposit, other assets, fixed assets, cash and bank balance, and debtors with 23.4 percent, 15.0 percent, 7.4 percent, 5.3 percent, and 1.2 percent respectively. Whereas, fixed deposits pose at the top with 29.0 percent share in assets of general (non-life) insurance companies followed by other assets, investments, fixed assets, debtors, and cash and bank balance with 27.5 percent, 17.7 percent, 13.1 percent, 7.3 percent, and 5.4 percent respectively. Since interest rate on fixed deposit has substantially declined and return from capital market remains also low, insurance companies are likely to suffer from investment risk. This suggests that they are required to re-design their products, expand their market size and improve their service quality to sustain.

9.3 PERFORMANCE AND SOUNDNESS OF GENERAL INSURANCE SECTOR

Table 9.1 exhibits the major performance and soundness indicators of general insurance companies in Bangladesh for CY17 and CY18. Profitability indicators demonstrate a mixed performance in general insurance sector. Claims ratio and the underwriting expense of the insurer increased slightly in CY18 compared to that of the previous year. Whereas, commission paid ratio and management expense ratio that indicate the operating expenses as a percentage of the net premium decreased in CY18 than that of the previous year; hence led to higher profitability. Combined ratio, which considers both claim-related losses and general business costs, increased in 2018 reflecting higher expenses than that of the previous year. Despite a decline in CY18, commission and management expenses still consume major part of the underwriting premium. To bring operating efficiency and to increase profitability the expenses may be reduced. Nevertheless, return on assets (ROA) and return on equity (ROE) still refer to higher profitability for insurance sector compared to the profitability of banking and NBFI sector[90].

90 In CY18, ROA and ROE for Banks were 0.3 percent and 4.4 percent respectively; and for FIs, ROA and ROE were 0.9 percent and 7.4 percent respectively.

TABLE 9.1: PERFORMANCE AND SOUNDNESS INDICATORS (GENERAL/ NON-LIFE INSURANCE)		
Profitability	**2017**	**2018**
Claims Ratio[1]	26.2%	27.9%
Commission Ratio[2]	25.3%	22.6%
Management Expense Ratio[3]	33.2%	33.3%
Combined Ratio[4]	84.7%	87.9%
ROA	5.0%	4.8%
ROE	8.0%	8.2%
Capital & Leverage	**2017**	**2018**
Capital to Asset Ratio	16.7%	16.8%
Net Premium to Capital Ratio	114%[R]	120%
Gross Premium to Equity Ratio	57.7%	64.7%
Total Assets to Equity Ratio	172%	175%
Reinsurance	**2017**	**2018**
Risk Retention Rate[5]	56.6%	54.6%

1. Net claims as a percentage of net premium.
2. Commission as a percentage of net premium.
3. Management expense as a percentage of net premium.
4. (Net claims+ commission+ management expense) as a percentage of net premium.
5. Net premium as a percentage of gross premium.

Source: *BIA, FSD calculations.*

Capital and leverage indicators also show a mixed scenario for the general insurance sector in the review year. Capital to asset ratio increased marginally in CY18. However, higher net premium to capital ratio in CY18 reflects higher level of net underwritings relative to capital. Similarly, gross premium to equity ratio was higher in 2018. Moreover, increase in total assets to equity ratio in 2018 indicates higher financial leverage. But the adequacy of capital and reserves for insurance sector is not assessed properly to mitigate unforeseen losses as Risk-based Capital is not yet implemented for insurance companies in Bangladesh.

The Risk Retention Rate (RRR) of general insurance sector dropped by 2 percentage points in 2018. Thus, risk sharing among the insurance companies increased gradually, which is a positive sign for the financial stability. However, analysis shows that most of the risk of private insurance companies shifted to the public insurance company namely Sadharan Bima Corporation through reinsurance, which could be a concentration of risks to one company and a threat to financial stability. In addition, declining RRR may reduce the profit of this sector while risk sharing may balance the loss in profit, if occurred in future. In that case, proper risk pricing by the insurance companies may trade-off between profitability and cost for risk transferring.

9.4 COMPARISON AMONG DIFFERENT CATEGORIES OF GENERAL INSURANCE

Insurance services of general insurance sector in Bangladesh are categorized as fire, marine, motor, and miscellaneous insurance. Chart 9.7 provides the category-wise gross and net premium in 2018. The Chart shows that fire insurance registered the highest gross premium in CY18, followed by marine, miscellaneous and motor insurance. However, marine insurance was on top in terms of net premium followed by fire, motor and miscellaneous. Differences in risk retention rate in different insurance categories mainly caused the different rankings for gross and net premiums. The insurance companies retained more risk internally in marine and motor segments which is better for stability in the insurance sector as a whole. Chart 9.8 shows the risk retention rate by business category. It demonstrates that reinsurance was mostly used for motor followed by marine, fire, and miscellaneous insurance.

CHART 9.7: GROSS AND NET PREMIUM BY BUSINESS

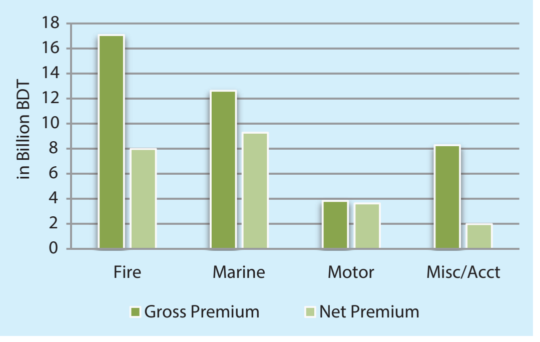
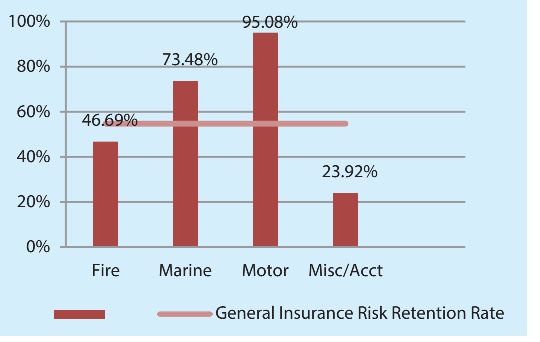


CHART 9.8: RISK RETENTION RATE BY BUSINESS



Source: *BIA, FSD calculations.*

Chart 9.9 shows net claim ratios and underwriting profit to net premium of general insurance by business type. It shows that in CY18, marine and miscellaneous insurance incurred low expense claims for 12 percent and 16 percent respectively compared to motor and Fire insurance for 24 percent and 51 percent respectively. On the other hand, in 2018, underwriting profit to net premium was highest for marine insurance and negative for fire insurance. Underwriting profit for miscellaneous and motor insurance was more or less same. Fire insurance incurred negative underwriting profit for BDT 0.1 billion (Chart 9.10) mainly due to high expenses for claims. The aforesaid Chart shows the underwriting profit by business category. The Chart also entails that the marine insurance registered highest underwriting profit for BDT 3.6 billion, whereas motor and miscellaneous insurance had BDT 1.2 billion and BDT 0.6 billion profit respectively. It is observed that the Risk Retention Ratio of fire insurance was lower, indicating a significant amount of their contracts may be reinsured with secured companies, but negative underwriting profit in fire segment prompted intensive monitoring by the regulators to ensure fair settlement in the fire insurance sector.

CHART 9.9: NET CLAIMS & UNDERWRITING BY BUSINESS (CY18)

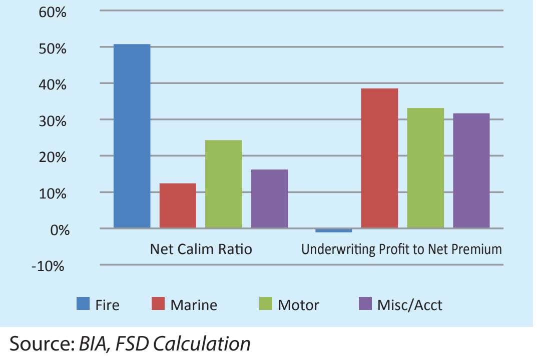
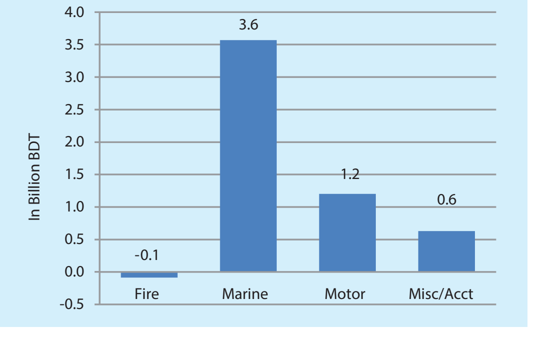


CHART 9.10 UNDERWRITING PROFIT BY BUSINESS (CY18)



Source: *BIA, FSD Calculation*

9.5 PERFORMANCE AND SOUNDNESS OF LIFE INSURANCE SECTOR

Some major performance and soundness indicators of life insurance companies in Bangladesh are exhibited in Table 9.2 for CY18 and CY17. As a whole, life insurance companies experienced underwriting loss in CY18 likewise CY17 exceeding 100 percent for the combined ratio. Indeed, the combined ratio was around 5 percentage points higher than that of the previous year and registered to 108.5 percent. Higher claims and management expense relative to net premium owed to such a high combined ratio in CY18, which reflects that performance of insurance sector deteriorated compared to that of CY17. The decling trend in profitability entails to revisit the strategic investment decision by the life insurance companies. If this trend continues, their financial condition will deteriorate gradually. So, all these warrant a regular analysis and monitoring of insurers financial performance and assessments of their risk by the regulators.

TABLE 9.2: PERFORMANCE AND SOUNDNESS INDICATORS (LIFE INSURANCE)		
Profitability	**2017**	**2018**
Claims Ratio	66.9%	71.1%
Management Expense Ratio*	36.5%	37.4%
Combined Ratio	103.4%	108.5%
Capital & Investment		
Capital to Asset Ratio	2.6%	2.7%
Investment to Total Assets Ratio	49.8%	47.8%
Investment and Other income to Total Assets Ratio	7.0%	6.9%
Investment Interest & Other Income to Net Premium Ratio	31.8%	29.6%
*Management Expense ratio contains commission paid and other operating expense.		

Source: *BIA, FSD calculations.*

The capital to asset ratio in Table 9.2 demonstrates that compared to the life insurance companies' assets, equity is reasonably low. In this case, the additional capital buffer is needed to mitigate unforeseen losses. However, the ratio increased marginally in CY18. Investment, the principal asset item of the balance sheet of life insurance companies decreased as a percentage of total assets in CY18. Low priced investment relative to assets have impact on investment income- an important income sources for life insurance companies. The investment and other income to total assets ratio declined in CY18. Similarly, investment and other income as a percentage of net premiums declined along with rising of underwriting expenses as shown by the combined ratio.

9.6 CONCENTRATION IN INSURANCE SECTOR

Table 9.3 shows that the assets and gross premiums of both the general and life insurance sectors were highly concentrated among Top 5 companies. Especially, in general insurance sector, assets and gross premiums are concentrated into one public insurance company. Due to the concentration of insurance business to the top five insurers, these insurers warrant intensive supervision as well as monitoring because of their systemic importance in the insurance sector.

TABLE 9.3: CONCENTRATION OF ASSET AND PREMIUM IN INSURANCE COMPANIES (CY18)		
Concentration in Life Insurance		
	Asset Size	**Gross Premium**
Total sector (BDT in billions)	384.9	89.9
Top 5 insurance companies' (BDT in billions)	291.9	61.6
Concentration in top five companies	75.9%	68.5%
Concentration in Jibon Bima Corporation (JBC)*	5.4%	5.7%
Concentration in General Insurance		
	Asset Size	**Gross Premium**
Total sector (BDT in billions)	113.1	41.8
Top 5 insurance companies' (BDT in billions)	61.3	22.8
Concentration in top five companies	54.2%	54.6%
Concentration in Sadharon Bima Corporation (SBC)*	29.4%	27.4%
*Jibon Bima Corporation (JBC) and Sadharon Bima Corporation (SBC) are the public sector insurance companies and lead the life insurance and general insurance respectively.		

Source: *BIA, FSD Calculation.*

9.7 INTERCONNECTEDNESS BETWEEN INSURANCE AND OTHER SECTORS

Interest income from fixed deposits maintained with Banks and FIs is a major source of revenue for the insurance companies. Fixed deposit registered the highest portion of total assets for general (non-life) insurance companies, while it took the second highest portion of total assets for life insurance companies in CY18. Nearly 25 percent of the total assets of the insurance sector amounting

CHART 9.11: FIXED DEPOSIT AS A PERCENT OF TOTAL ASSETS (CY-18)

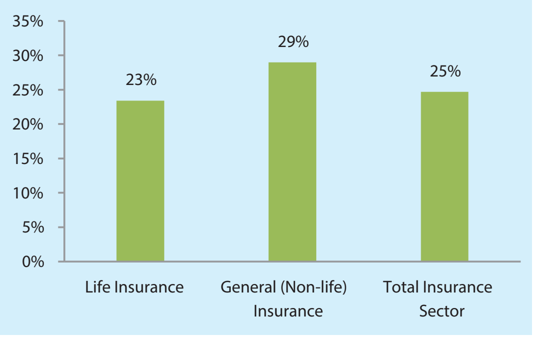
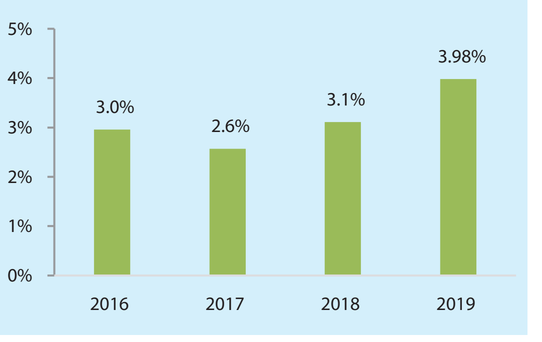


CHART 9.12: INSURANCE SECTOR'S YEAR-END MARKET CAPITALIZATION IN DSE (CY16-CY19)



Source: *DSE , FSD calculations*

to BDT 122.9 billion was deposited to banks and financial institutions as fixed deposit in 2018 (Chart 9.11), which is 2.16 percent of the total fixed deposit (liabilities) of the banking sector in 2018. So, risk of any sudden withdrawal of fixed deposits by the insurance companies would not be a major concern for the banking sector. On the contrary, any adverse shock or insolvency in the banking sector could have a strong contagion effect on insurance sector as their major portion of assets will be affected by that and they will be under pressure to meet their obligation in due time. Pertinently, recent initiatives for reduction in interest of deposits by the banking industry could impinge the future income of the insurance sector and they may fall into an inconvenient position and may not opt to reshuffle their investment portfolio quickly.

Similarly, investment in share market by the insurance companies is exposed to equity price risk. So, poor performance of stock market may put stress on the insurance market investment from premium, reserve fund and other sources. Reduction of stock market index eventually impacted on the price of the capital market investment by the insurance companies, which is also a cause for declining of their net profit. But any stress on insurance market will have limited impact on the stock market as market capitalization of insurance sector in Dhaka Stock Exchange (DSE) is only around four percent (see Chart 9.12).

Insurance companies also hold a notable size of government securities for the purpose of investment. Hence, interest rate fluctuation may have impact on interest income of insurance companies. as. In particular, low yield may stress the life and fire insurance companies as they were incurring underwriting loss, rather depending on investment income. However, the lower yield due to downward trend in market interest rate might give more return in case of exchanging or marked to market the securities with higher value.

By and large, performance of the insurance sector was subdued in the review year. Despite a marginal growth in gross premium and total assets in nominal term, compared to the growth of GDP, growth of premiums and assets of the industry dropped in 2018. However, consistently growing macroeconomic indicators of the country imply large prospects for the sector. High commission and management expenses and lack of customer confidence due to poor claim-settlement practices could be the prime drawbacks of the growth of the insurance businesses. Regulatory reforms, better corporate governance in the sector, and introduction of tailor-made insurance products (focusing agriculture, wage-earners, and pension) may support the growth of the industry and eventually promote financial stability.

It is praiseworthy that under the pursuit of National Insurance Policy of 2014, IDRA is working relentlessly to strengthen its capacity and modernize its operations to formulate regulation and supervision related to solvency margins, supervisory review and reporting, reinsurance and other forms of transfer, conduct of business, investment, reinsurance and micro insurance, corporate governance, enforcement, accounting standards, distribution networks (including bank-assurance) and policy holder protection across different market segments.

Chapter 10

MICROFINANCE INSTITUTIONS (MFIs)

In the last few decades, Bangladesh has made remarkable progress in the socio-economic development where micro finance institutions (MFIs) played a significant role by providing access to financial services to a huge number of financially excluded people. These financial programs are primarily targeted to rural poor households, where a large part of them are women. Therefore, these programs have become an integral part of inclusive and equitable growth strategy of the country. On the other hand, through various credit schemes and social business, MFIs are contributing to attain financial stability. The sector is growing under the surveillance of the Microcredit Regulatory Authority (MRA) and with the continuous support of the government of Bangladesh. Soundness of microfinance sector is imperative to promote the financial stability of the country.

10.1 OUTLOOK OF MICROFINANCE SECTOR

The microfinance sector in Bangladesh has reached the grassroots level and its success is acclaimed globally. In FY19, this sector provided various types of financial services to 32.4 million individuals and micro enterprises, an increase of 4.2 percent from FY18, through 724 licensed institutions. In this period, number of the employees and branches increased by 6.3 percent and 4.9 percent respectively compared to those of FY18. Although, total number of MFIs decreased by 29 during the last five years (FY15 to FY19), the number of members of this sector has increased by 6.4 million during this period (Table 10.1 and Chart 10.1).

TABLE 10.1: SELECTED INDICATORS OF MICROFINANCE SERVICES

		FY15	FY16	FY17	FY18	FY19	Growth based on FY18
1	Number of licensed institutions	753	759	700^{R}	706^{R}	724	2.5%
2	Number of branches (thousand)	15.6	16.3	17.1	18.1	19.0	4.9%
3	Number of employees (thousand)	110.8	125.0	137.6	152.5	162.2	6.3%
4	Number of members (millions)	26.0	27.8	29.9	31.08	32.4	4.2%
5	Number of borrowers (millions)	20.8	23.1	24.8	25.7	25.8	0.3%
6	Outstanding loans (billions)	353.8	458.2	581.6	671.2	787.6	17.3%
7	Outstanding loans in top 20 institutions (billions)	278.0	348.0	478.0	528.3	564.7	6.9%
8	Savings balance held in the licensed institutions (billions)	136.0	168.7	216.8^{R}	263.0	306.2	16.4%
9	Savings balance held in top 20 institutions (billions)	107.0	136.0	171.4	206.8	239.0	15.6%

Source: *Microcredit Regulatory Authority; Calculation: FSD; R= Revised*

In the reporting period, total outstanding loans and savings of this sector were BDT 787.6 billion and BDT 306.2 billion respectively, which are 17.3 percent and 16.4 percent higher than FY18 (Chart 10.2).

CHART 10.1: NUMBER OF LICENSED INSTITUTIONS, BRANCHES, EMPLOYEES AND MEMBERS

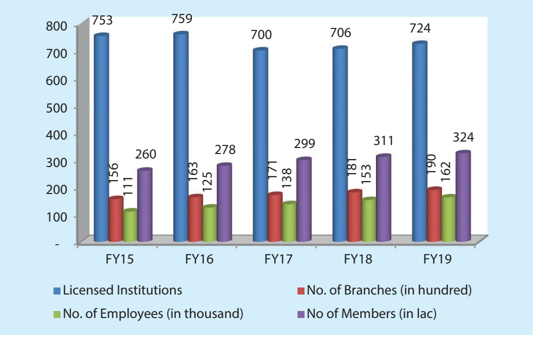
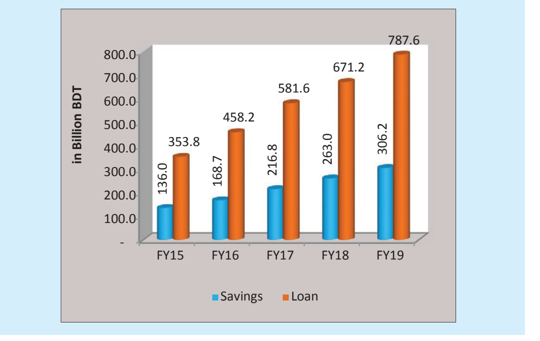


CHART 10.2: SAVINGS AND LOAN SCENARIO OF MFIS SECTOR



Source: *Microcredit Regulatory Authority; Calculation: FSD*

Chart 10.3 demonstrates that the numbers of both borrowers and members of MFIs have been steadily increasing over time. In particular, the numbers of borrowers and members have increased by 0.08 million and 1.3 million respectively in FY19 from the preceding fiscal year.

The borrowers-to-members' ratio showed a declining trend in recent year. In FY19, the ratio was 79.6 percent which is 300 basis points lower than that of the previous fiscal year (Chart 10.4).

CHART 10.3: TREND OF SECTOR OUTREACH

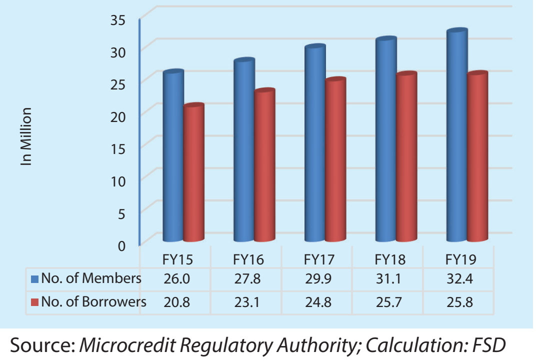
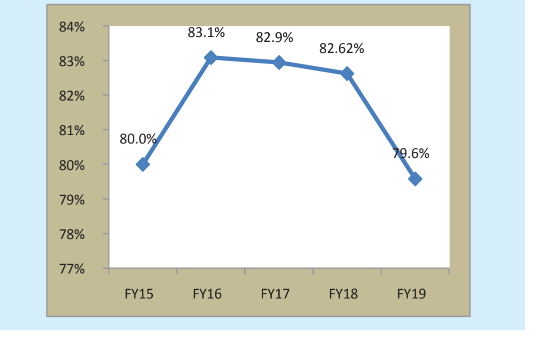


CHART 10.4: BORROWERS-TO-MEMBERS RATIO



Source: *Microcredit Regulatory Authority; Calculation: FSD*

The average loans and savings per institution showed an increasing trend over the last five fiscal years. The average loans and savings per institution increased by 14.4 percent and 13.5 percent respectively during FY19 from the corresponding figures of preceding year (Chart 10.5).

Similar trend was witnessed for per branch's growth of loans and savings. In particular, the average loans and savings per branch were BDT 41.5 million and BDT 16.1 million respectively, which were 11.8 percent and 11.0 percent higher than the corresponding figures of FY18 (Chart 10.6).

CHART 10.5: AVERAGE LOANS AND SAVINGS PER INSTITUTION

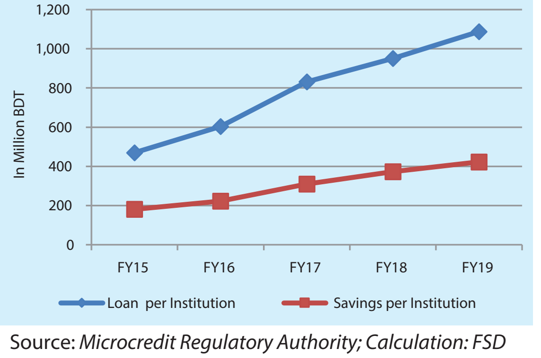
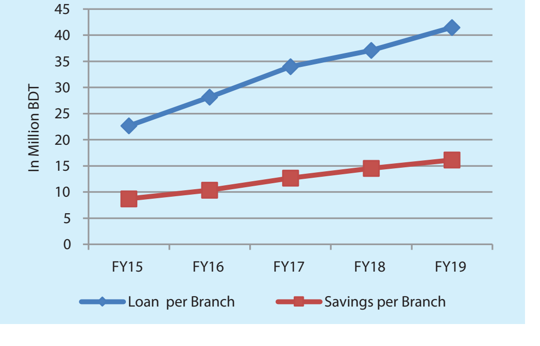


CHART 10.6: AVERAGE LOANS AND SAVINGS PER BRANCH



Source: *Microcredit Regulatory Authority; Calculation: FSD*

Chart 10.7 portrays an upward trend in average loans and savings size in terms of per borrower and member in the last five years. In FY19, the average loan per borrower was 17.0 percent higher than the previous fiscal year. But it was almost double compared with FY15. Similarly, the average savings per member was 11.8 percent higher than the previous reporting period.

CHART 10.7: AVERAGE LOAN PER BORROWER AND SAVINGS PER MEMBER

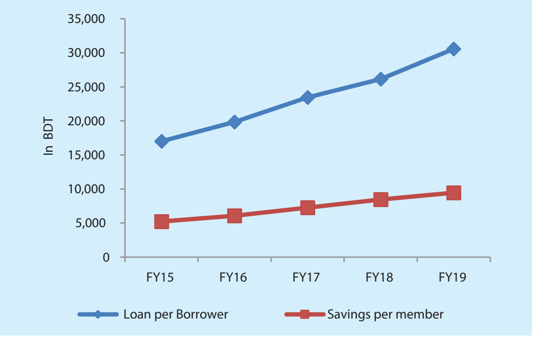
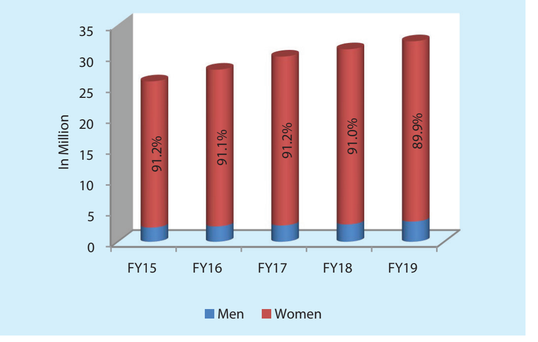


CHART 10.8: STRUCTURE OF MEMBERSHIP



Source: *Microcredit Regulatory Authority; Calculation: FSD*

Chart 10.8 shows that MFI sector is mostly dominated by female members, and their number is increasing steadily with 2.9 percent growth in FY19 compared to FY18. The number of male members has reached to 3.3 million, an increase of 16.5 percent from the previous reporting period. The proportion of male members increased by 1.01 percentage points in FY19.

Presently, out of 29.1 million, 23.2 million female members (79.6 percent) and out of 3.3 million, 2.6 million male members (79.5 percent) are availing credit facilities from MFIs. These figures indicate that, in aggregate, the share of female participation in getting access to credit is considerably higher than their male counterpart.

10.2 LOAN STRUCTURE

Chart 10.9 shows the distribution of outstanding loans in different loan sizes. In FY19, disbursed loans in the ranges of BDT up to 10000, 10001 to 30000, 30001 to 50000, 50001 to 100000, 100001 to 300000 and above 300,000 represented 4.3 percent, 21.5 percent, 22.0 percent, 21.7 percent, 20.4 percent and 10.1 percent respectively.

The total loans given in the ranges of BDT up to 10000 and 10001 to 30000 increased by 1.4 percent and 0.25 percent respectively, while the total loans provided in the ranges of BDT 30001 to 50000, 50001 to 100000 and 100001 to 300000 and above 300000 increased by 12.7 percent, 13.1 percent, 40.4 percent and 60.4 percent respectively (Chart 10.10) indicating higher increase in larger size of loans.

CHART 10.9 : OUTSTANDING LOAN STRUCTURE IN FY19

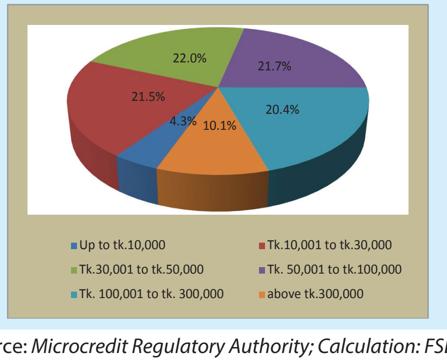
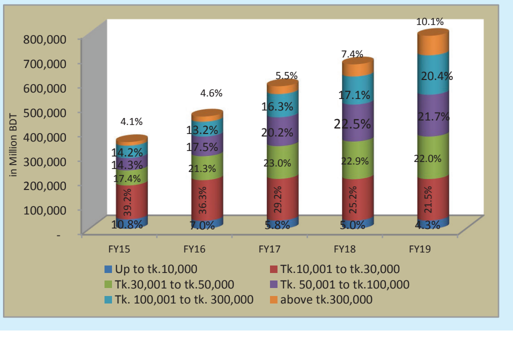


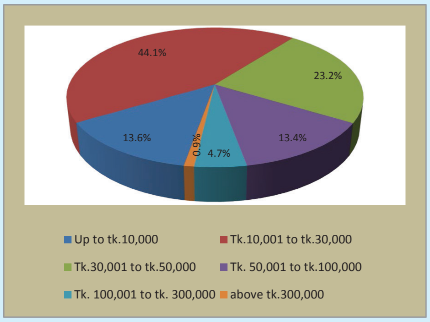
CHART 10.10 : OUTSTANDING LOAN STRUCTURAL TREND



Source: *Microcredit Regulatory Authority; Calculation: FSD*

Chart 10.11 shows the trend in the number of members borrowing loans in different loan sizes. In FY19, 17.3 million members (1.6 percent higher than that of FY18) availed loans in the range BDT. 10001 to 50000 and this segment constituted 67.3 percent of total borrowers. The number of members borrowing in the ranges up to BDT 10000 and BDT 10001 to 30000 decreased by 19.0 percent and 1.6 percent respectively during FY19 compared to FY18. On the other hand, it has increased by 8.4 percent, 11.1 percent, 18.9 percent and 42.5 percent in the borrower's ranges of BDT 30001 to 50000, 50001 to 100000, 100001 to 300000 and above 300000 respectively during this period. These indicators reveal that households' demand for higher amount of microcredit is increasing over the years.

CHART 10.11: LOAN RECIPIENTS COMPOSITION IN FY19



Source: *Microcredit Regulatory Authority; Calculation: FSD*

In FY19, non-performing loan (NPL) ratio of the MFI sector was 3.0 percent (Chart 10.12). Although the ratio is reasonably low given the NPL ratio of the banking and FIs sectors, its increasing trend during the last couple of years appears to get close attention. In FY19, total nonperforming loan amount was BDT 23.6 billion, which is BDT 5.3 billion higher than that of FY18 (Chart 10.13). Notably, in FY19 total outstanding loans in MFIs sector has increased by 17.3 percent whereas the NPL ratio increased by 0.3 percentage point compared to FY18. Due to the increasing trend in the NPL ratio, special attention is required for keeping the sector sound and stable.

CHART 10.12:NON-PERFORMING LOAN RATIO

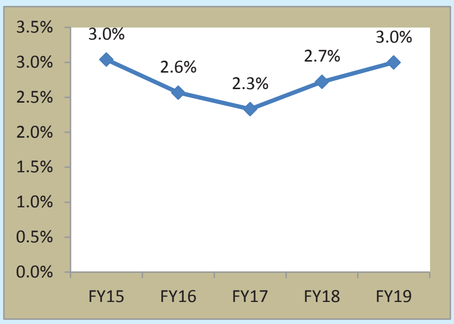
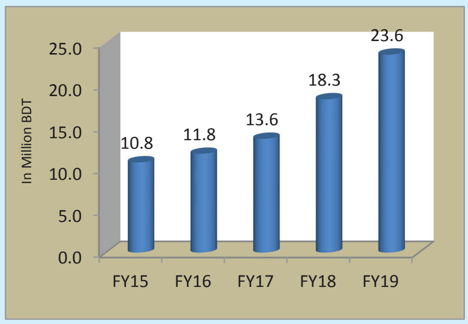


CHART 10.13:TREND OF NON-PERFORMING LOAN



Source: *Microcredit Regulatory Authority; Calculation: FSD*

10.3 SOURCES OF FUNDS AND ITS COMPOSITION

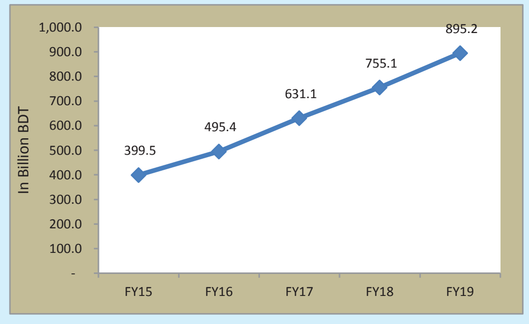
Chart 10.14 exhibits that total funds of MFIs were BDT 895.2 billion during FY19, which was 18.6 percent higher than that in FY18. This expansion was mainly due to (1) increase in MFIs' equity (up by 19.2 percent from FY18), (2) significant increase in savings of the members of MFIs (up by 16.4 percent from FY18), (3) increase in loan from PKSF (up by 9.4 percent from FY18) and (4) increase in loans from commercial banks (up by 26.3 percent from FY18).

The total fund[91] of MFIs sector increased by more than double during the last five fiscal years. During this period, the MFIs sector enjoyed an average growth of 25 percent approximately in total funds and it is still growing significantly.

In FY19, equity, savings from members and loans from commercial banks constituted 34.6, 34.4 and 21.6 percent of total funding of the MFIs respectively. Loans from PKSF, donors' fund, other loans and other sources constituted 5.9 percent, 0.6 percent, 1.3 percent and 1.7 percent respectively

91 The total fund mainly comprises MFIs' own capital, savings, loans from commercial banks, loans from PKSF, donors' fund, loans from government and others' loans.

CHART 10.14: TOTAL FUND OF MFIS



Source: *Microcredit Regulatory Authority; Calculation: FSD*

(Chart 10.15). Marginal contribution (1.3 percent) of donors in MFIs' Capital Fund demonstrates that once donor-dependent MFIs have now become almost self-reliant.

Chart 10.16 shows the contribution of capital as a source of funds increased to 34.6 percent in FY19 from 34.4[R] percent in FY18. In this period, the contribution of member savings slightly decreased to 34.4 percent from 35.0 percent. However, the contribution of loans from commercial banks increased to 21.6 percent from 20.3 percent in the previous period.

CHART 10.15: MAJOR SOURCES OF FUND IN FY19

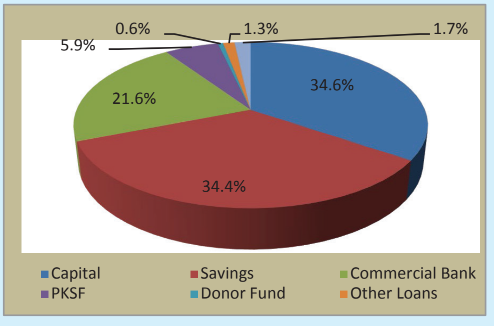
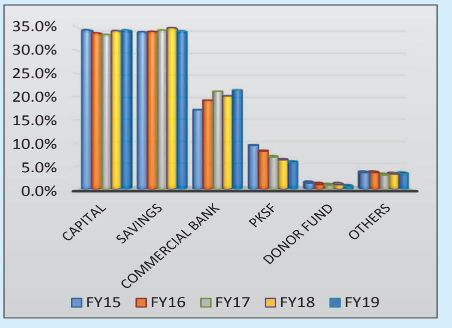


CHART 10.16: TREND OF MAJOR SOURCES OF FUND



Source: *Microcredit Regulatory Authority; Calculation: FSD*

10.4 FINANCIAL SUSTAINABILITY OF MFIs

Return on assets (ROA) and Return on equity (ROE) are two major indicators of operational sustainability of financial institutions. In FY19, ROA and ROE of MFIs were 6.4 and 17.1 percent respectively, where the corresponding figures were 4.4 and 19.5 percent in FY18 (Chart 10.17). Notably, ROE of MFIs sector decreased slightly due to sizeable increase of equity (BDT 49.0 billion).

Donation-to-equity ratio (dependency ratio) declines sharply indicating strong improvement in self-sustainability of this sector (Chart 10.18).

CHART 10.17: OPERATIONAL SUSTAINABILITY

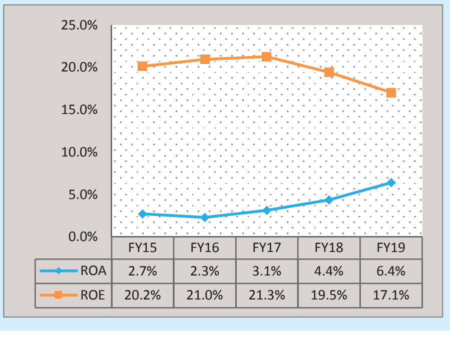
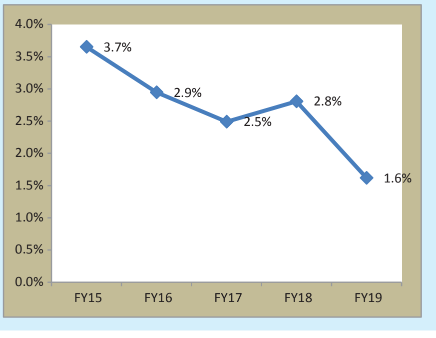


CHART 10.18: FINANCIAL DEPENDENCY



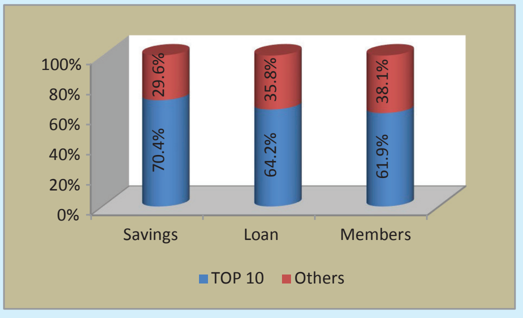
Source: *Microcredit Regulatory Authority, Calculation: FSD*

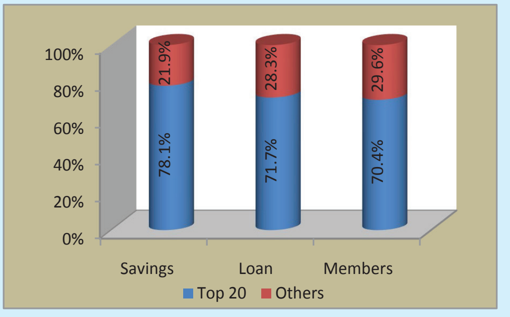
The amount of donated funds decreased in FY19, but the equity increased from retained earnings and members' savings were substantial, which are necessitated for the long-term sustainability of this sector, and for withstanding any financial shocks.

The microfinance sector is highly concentrated in terms of loans, savings and number of members in a small number of institutions. The top 10 MFIs mobilized 70.44 percent of total savings, and disbursed 64.2 percent of total loans in FY19. They provided financial services to 61.9 percent of total members of MFIs.

The high degree of market dominance by the top MFIs indicate that their financing activities need to be monitored closely, otherwise deterioration of their performance may pose a threat to the stability of this sector.

CHART 10.19: CONCENTRATION OF MFI SECTOR IN TERMS OF LOANS, SAVINGS AND MEMBERS HELD BY TOP 10 AND TOP 20 MFIs





Source: *Microcredit Regulatory Authority; Calculation: FSD*

The overall performance of MFIs in Bangladesh was reasonably stable during FY19. Although NPL ratio of the MFI sector compared to banking sector is fairly low, it has been increasing during the last couple of years. For a stable and sound microfinance sector, increasing trend in NPL ratio deserves special attention. The demand for microfinance is increasing day by day. Since a large number of micro finance institutions are working in providing credit to the marginal people, a borrower may take opportunity to borrow fund from multiple MFIs. If the borrower selection and their credit needs are not justified properly, overlapping of loans of borrowers may create credit trap in the long run, which may further raise the sector's NPL ratio. A structured credit Information Bureau and a technology-based monitoring system for MFIs may reduce these problems.

The whole world including Bangladesh is passing a critical situation due to prolonged shutdown of major economic activities caused by the COVID-19 pandemic. In an attempt to revive livelihood of poor households by providing financial support, Bangladesh Bank has unveiled a revolving refinance scheme of BDT 30 billion in April, 2020 out of its own fund which would be disbursed through the MFIs subject to fulfillment of terms and conditions with maximum 9 percent interest rate at borrower level. Quick implementation of stimulus packages, close monitoring and intensive supervision are required for speedy recovery of the economy as well as to minimize the downside risk of misuse of fund during microcredit operations.

Chapter 11

DEVELOPMENTS IN THE FINANCIAL SYSTEM

Bangladesh has been one of the fastest growing economies securing a real GDP growth of 8.15 percent in FY19. In order to support this strong growth and also to establish a more resilient financial system, Bangladesh Bank along with Government has taken a number of policy measures, regulatory and supervisory initiatives. Some of the notable initiatives are mentioned below in brevity:

11.1 ASSESSMENT OF FINANCIAL STABILITY BY BB

BB has disclosed major trends in the financial system of Bangladesh, as well as communicated major risks and fragilities therein to the stakeholders of the financial system by publishing the Annual Financial Stability Report (FSR-2018) and Quarterly Financial Stability Assessment Report (QFSAR-2019Q1, 2019Q2 and 2019Q3). First two quarterly QFSARs have also addressed some contemporary issues like financial inclusion & financial stability in Bangladesh, translating real sector default risk into financial risk in Bangladesh, inter-linkage between banks and financial institutions and also inter-linkages between bank and capital market in Bangladesh. Some qualitative and quantitative indicators of systemic risks in our financial system have been enumerated in the Bangladesh Systemic Risk Dashboard (BSRD-2019H1).

11.2 REGULATIONS AND POLICIES FOR BANKING SECTOR

A) LOAN CLASSIFICATION AND PROVISIONING

BB has relaxed its loan classification and provisioning policy vide BRPD circular no.03, dated 29 April 2019 in order to facilitate the current business environment and also to be aligned with economic cycle to support the persistent growth of Bangladesh. As per the revised policy, the past due/overdue periods of continuous loan, demand loan and fixed term loan have been extended to put them under Classification status.

B) LOAN/INVESTMENT WRITE-OFF POLICY

BB has revised the existing write-off policy of loan/investment vide BRPD circular no. 1, dated 06 February 2019 to reduce NPL in the banking sector. This policy has reduced the tenure of write-off from 5 to 3 years and incorporated the write-off procedure along with activities related to recovery and reporting procedure etc. But banks are required to obtain prior approval from Bangladesh Bank in order to write off loans/investments of current or former bank directors or their related concerns.

C) VALUE ADDED TAX (VAT) REALIZATION/COLLECTION

As requested by the NBR, BB has directed all the scheduled banks to collect 15 percent value added tax (VAT) while payments are made using banking services, such as credit cards or TT or any mode of payment by customers for getting services (e.g., royalty, various internet services, advertisement on Facebook, YouTube etc.) from service providers located outside of Bangladesh as per clause Gha of sub-section 3 of section 3 of the Value Added Tax Act, 1991.

D) EXPENDITURE LIMIT FOR THE ESTABLISHMENT, RELOCATION AND DECORATION OF BUSINESS CENTERS OF BANKS

BB has revised the expenditure limits of banks vide BRPD circular letter no. 01/2019 for setting up new business centre and relocating existing ones considering the increased cost of land and materials over time. From now banks can spend up to BDT 1,850.00 per square feet for setting up new business centre and up to BDT 1,250.00 per square feet for relocating existing ones except the cost of IT equipment and air-conditioning systems.

E) RENAMING OF 'THE FARMERS BANK LIMITED' AS 'PADMA BANK LIMITED

The Farmers Bank Limited has been renamed as "Padma Bank Limited" vide BRPD circular letter no. 2/2019 and subsequently included in the list of scheduled banks by BB.

F) INCENTIVES FOR GOOD BORROWERS

BB has instructed all banks vide BRPD circular no. 4/2019 to provide 10 percent interest/profit rebate to their good borrowers. As per the circular, a borrower is treated as "good" by the banks if their loan status remained unclassified in last twelve months.

G) BANKS' ACCESS TO DEPOSIT OF GOVERNMENT, SEMI-GOVERNMENT, AUTONOMOUS AND SEMI-AUTONOMOUS BODIES' OWN FUND OR FUND RECEIVED UNDER ANNUAL DEVELOPMENT PROGRAM (ADP)

In accordance with the directives issued by Financial Institutions Division of Ministry of Finance, BB has circulated the permissible limit of fund of the autonomous and semi-autonomous bodies' received under government's annual development program to be deposited in banks/FIs with maximum 6 percent interest rate.

H) POLICY FOR OFFSHORE BANKING OPERATION OF THE BANKS

In line with promoting, attracting and facilitating foreign investment in the EPZs, Economic Zones and Hi-tech Parks, the policy for offshore banking operation of the banks has been redesigned and circulated vide BRPD circular no. 2, dated 25 February 2019. Through this policy, definition of offshore banking, approval for conducting offshore banking in Bangladesh, commencement of operation, operation/transactions of offshore banking, restrictions on activities, prudential regulations, and termination and/or amendment of the approval for offshore banking have been rationalized in line with global practices.

I) BANGLADESH BANK REFINANCE SCHEME FOR JUTE SECTOR

To support the jute sector, Bangladesh Bank vide BRPD circular letter no. 13, dated 23 June, 2019 has enhanced its Refinance Scheme for jute sector to BDT 3.0 billion from BDT 2.0 million for next five years.

J) MONITORING OF CLASSIFIED LOAN ACCOUNTS AMOUNTING BDT 100 CRORE AND ABOVE BY SCHEDULED BANKS

Bangladesh Bank, vide BRPD circular no. 06, dated 22 July 2019, has advised all the scheduled banks to form a "Special Monitoring Cell" for close monitoring of classified loans amounting BDT 100 crore[92] and also report to BB. This initiative may help to bring down classified loans within reasonable limit.

K) AVOIDANCE OF HIGH EXPENSE FOR LUXURIOUS VEHICLES, DECORATION AND OTHER MATTERS

All banks operating in Bangladesh have been instructed vide BRPD circular letter no. 18, dated 20 August 2019, to avoid unnecessary high expense for luxurious vehicles, decoration of office space and other matters. By doing so, banks can improve their competitiveness in terms of interest rates, fees and other charges.

L) MASTER CIRCULAR ON SCHEDULE OF CHARGES

To increase the deposit base and also to attract small deposit holders in the banking system, BB, vide BRPD circular no. 07, dated 31 October 2019, has rationalized the account maintenance fee. Presently, no charge is applicable for saving account having average deposit balance up to BDT 10,000/- (Ten thousand).

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92 100 crore = 1 billion.

M) PRUDENTIAL REGULATIONS FOR CONSUMER FINANCING (REGULATION FOR HOUSE FINANCE)

BB, vide BRPD circular letter no. 25, dated 19 November 2019, has amended the clause 23 of Prudential Regulations for Consumer Financing by fixing maximum individual party limit in respect of housing finance by the banks up to BDT 20 (Twenty) million and also to comply with the maximum debt equity ratio of 70:30 during disbursing the housing finance facility.

N) LOAN RESCHEDULING AND ONE TIME EXIT POLICY

BB, vide BRPD circular no. 05, dated 16 May 2019, has relaxed the terms and conditions of loan rescheduling policy and also provided one time exit facility to the defaulter borrowers by reducing the amount of down payment and waiver of interest to shrink the default culture.

11.3 POLICIES FOR FINANCIAL INSTITUTIONS

A) LOAN/LEASE/INVESTMENT WRITE OFF POLICY FOR FINANCIAL INSTITUTIONS

BB has issued a circular regarding write-off policy of loan/lease/investment for the financial institutions to revise write-off procedure, activities related to recovery, reporting procedure etc. As per the circular, the loans/leases/investments can be written-off if they are classified as “bad” for a period of three consecutive years and no recovery or possibility of recovery is being observed for a long period.

B) RE-FIXING THE MAXIMUM LIMIT OF BORROWING FROM THE CALL MONEY MARKET FOR FINANCIAL INSTITUTIONS

Bangladesh Bank has enhanced the maximum limit of borrowing for financial institutions from the call money market to ease their liquidity situation. Financial institutions are now allowed to borrow up to 40 percent of their equities instead of 30 percent from the call money market.

C) NAME CHANGE OF FINANCIAL INSTITUTION

BB has changed the name of “CAPM Venture Capital & Finance Limited” to “CVC Finance Limited” as per DFIM circular letter no. 01, dated 03 February 2019.

D) OPENING OF BUSINESS DEVELOPMENT CENTRE

BB has incorporated a clause “Gha” in the DFIM circular no. 07, dated 28 June 2010 with a view to ensuring better business practices by financial institutions. FIs are now required to take approval from BB before establishing any kind of business development centre (e.g., business development center, customer service centre, call centre, unit office, sales centre, etc.) along with establishing / relocating a branch/booth.

E) REGARDING TRANSFER OF JUTE SECTOR’s OUTSTANDING LOANS TO BLOCK ACCOUNT

To boost up recovery of jute sector’s outstanding loan in ‘bad/loss’ category, BB has issued a circular regarding transfer of jute sector outstanding loans to block account in accordance with the directive issued by Financial Institutions Division of Ministry of Finance. BB has advised FIs accordingly to ensure the proper implementation of this government directive.

F) PRESERVATION AND USE OF INFORMATION OF THE PENALIZED EMPLOYEES OF FINANCIAL INSTITUTIONS THROUGH CMMS (CORPORATE MEMORY MANAGEMENT SYSTEM)

As a part of implementing the National Integrity Strategy (NIS) of the government, FIs were instructed to maintain a corporate memory system (CMS) about the penalized employees (dismissed from job due to corruption, money embezzlement, counterfeit fraud, moral fallout) of financial institutions including name, father’s name, mother’s name, date of birth, national identity card number, passport number, permanent address, date and reason of final dismissal etc.

11.4 DEVELOPMENTS IN OFF-SITE SUPERVISION

A) COMPLIANCE WITH ADVANCE TO DEPOSIT RATIO (ADR)/INVESTMENT TO DEPOSIT RATIO (IDR)

BB has relaxed the regulation by instructing banks to adjust their Advance to Deposit Ratio (ADR)/ Investment Deposit Ratio (IDR) in excess of regulatory requirements by 30 September 2019. Banks were also advised to prepare a precise work-plan of rationalizing the existing limit and subsequently report it to the concerned department of BB.

B) INVESTMENT IN NON-LISTED SECURITIES BY THE SCHEDULED BANKS

BB has decided in consultation with respective stakeholders to exempt banks' investments in equity share, non-convertible cumulative preference share, non-convertible bond, debentures and open-end mutual fund of non-listed companies to calculate overall capital market exposure on solo and consolidated basis. This facility can help banks for injecting fresh investments in the stock market.

C) INVESTMENT IN SPECIAL PURPOSE VEHICLE, ALTERNATIVE INVESTMENT FUND OR SIMILAR FUND/FUNDS BY THE SCHEDULED BANKS

BB has issued guideline to investment in non-listed special purpose fund/funds (Special Purpose Vehicle, Alternative Investment Fund or similar fund) which are duly registered with Bangladesh Securities and Exchange Commission (BSEC). As per guideline, BB has set up criteria to be followed by all scheduled banks regarding eligible sectors (Government/PPP/Private) along with investment limit and procedure of investment risk management in order to facilitate the use of bond instead of bank loan for large scale investment in infrastructure project through special purpose vehicle, alternative investment fund or similar funds. The Investment in such fund(s) by banks would not be counted as their Capital market exposure under the Bank Company Act, 1991.

D) MAINTENANCE OF CASH RESERVE RATIO (CRR) AND STATUTORY LIQUIDITY RATIO (SLR) FOR OFFSHORE BANKING OPERATION (OBO)

As a safeguard against risk arising from offshore banking operation and to impose discipline on this elusive branch, BB has issued a new policy and advised banks accordingly to comply with cash reserve requirement (CRR) and statutory liquidity ratio (SLR) rules for their Offshore Banking Operations.

E) MAINTENANCE OF ADVANCE- DEPOSIT RATIO (ADR)/INVESTMENT-DEPOSIT RATIO (IDR) FOR BANKS.

BB has raised the Advance-Deposit Ratio (ADR) to 85.0 percent (81.5 percent + additional 3.5 percent as per decision of bank's board of directors considering overall economic indices) for conventional banking and the Investment-Deposit Ratio (IDR) to 90.0 percent (89.0 percent + additional 1.0 percent as per decision of bank's board of directors considering overall economic indices) for Islamic Shari'ah-based banks.

F) TEMPORARY LIQUIDITY SUPPORT FOR INVESTMENT IN CAPITAL MARKET BY THE SCHEDULED BANKS

BB has taken a decision to provide temporary liquidity support to the scheduled banks to raise their respective portfolios in the capital market up to the regulatory limit directly or through their subsidiaries. Banks can also take the liquidity support through special repo (repurchase agreement) facility at the rate of six (6) percent interest for a 28-day period, which may be extended in rotation up to maximum six months.

11.5 DEVELOPMENTS IN FOREIGN EXCHANGE REGULATIONS/ TRANSACTIONS

To provide greater flexibility in the foreign exchange regulations, BB has made several amendments in its foreign exchange regulations. Some key changes are stated below:

A) REPAYMENT AGAINST IMPORTS UNDER SUPPLIER'/BUYER'S CREDIT RELAXATION

To facilitate import in small value, bullet payment is permissible in case of imports amounting up to USD 0.50 million or equivalent under supplier'/buyer's credit of goods admissible for usance period beyond 6 months but within one year.

B) ENDORSEMENT OF SHIPPING DOCUMENTS

As per circular, Authorized dealers (ADs) now endorse transport documents of title to cargo in favor of importer or other designated parties and deliver the same as per the stipulations of export letter of credit/valid sales contract only if full export proceed is received through normal banking channel before sending export documents to counterpart bank abroad for collection.

C) USE OF BALANCES HELD IN FOREIGN CURRENCY (FC) ACCOUNTS BY TYPE A INDUSTRIAL ENTERPRISES

'A' Type industrial enterprises operating in EPZs/EZs are allowed to invest in zone areas or outside zone areas in Bangladesh from their surplus fund held in their FC accounts. Such type of investment would be treated as reinvestment. Balances held in FC accounts by Type A industrial enterprises of EPZs/EZs can be used for purchasing shares in zone areas or outside zone areas in Bangladesh. Also dividend income out of such investment, and disinvestment proceeds (if any) approved by Bangladesh Bank may also be credited to their FC accounts, subject to compliance with regulations of taxes.

D) IMPORT OF UNPROCESSED YARN ON DEFERRED PAYMENT BASIS

To facilitate backward linkage industries, the usance period for import of unprocessed yarn used for producing outputs for only local delivery against back to back LCs has been enhanced from 180 days to 270 days.

E) BANK GUARANTEE BY EXPORTERS TO COMPETENT AUTHORITIES/AGENCIES IN THE COUNTRY OF IMPORT

Authorized Dealers, on account of Bangladeshi exporters, are allowed to issue guarantees in favor of such competent authorities/agencies in the country of import subject to usual norms and export performance of the exporter and potential export expectation. In addition, Authorized Dealers may arrange refinance under buyer's credit for 90 days to settle EDF loan used to import unprocessed yarn for the tenure of 180 days usance basis.

F) ISSUANCE OF LETTER OF CREDIT AUTHORIZATION FORM (LCAF)

BB has brought simplification in trade transactions that LCAF may also be signed by the lawful representative(s) of the importer. On receipt of such LCAF, ADs shall verify the signature of lawful representative(s) based on available records such as board resolution/authorization from the respective importer.

G) ISSUANCE OF AUTHORIZED GOLD DEALER LICENSE FOR IMPORT OF GOLD BAR AND JEWELLERY

Bangladesh Bank has issued licensing guidelines for gold importers under section 8 of Foreign Exchange Regulation Act, 1947. Under this circular, banks and other suitable entities are eligible for importing gold from the authorized dealers or producers. The guidelines is issued under the Gold Policy adopted by the government in 2018 with a view to making import and export of gold easy, preventing smuggling of the precious metal along with bringing transparency in its trading.

H) EXPORT DEVELOPMENT FUND (EDF)

To facilitate export in a wider scope, refinance from Export Development Fund (EDF) will be provided to authorized dealers (ADs) for bulk imports by manufacturer-exporters irrespective of sectors against their eligible requirements; based on their export performance over the preceding twelve months or USD 500000, whichever is lower.

I) USANCE INTEREST RATE AGAINST IMPORT UNDER SUPPLIER'S/BUYER'S CREDIT

As per circular, Banks are advised to set the all-in-cost ceiling per annum for usance period against imports under supplier's/buyer's credit at 6-month LIBOR plus 3.50 percent spread (maximum). This revised rate ceiling shall equally be applicable for discounting of usance export bills as referred to paragraph 25, chapter 8 of Guidelines for Foreign Exchange Transactions (GFET).

J) FOREIGN CURRENCY ACCOUNT FOR INTERNATIONAL GATEWAY (IGW) OPERATOR

Bangladesh Bank has instructed ADs to open and maintain Foreign Currency Account in the name of International Gateway (IGW) Operators having valid operator license issued by BTRC.

K) FOREIGN EXCHANGE TRANSACTIONS BY THE ENTERPRISES OF HI-TECH PARKS (HTPS) IN BANGLADESH

To facilitate foreign exchange transactions for enterprises located at Hi-Tech parks (HTPs) established by Bangladesh Hi-Tech Park Authority (BHTPA) under the provision of the act 'The Bangladesh Hi-Tech Park Authority Act, 2010 (Act no. 8 of 2010)', Bangladesh Bank has prepared a set of instructions/ guideline for authorized dealers (ADs) including off-shore banking Units (OBUs) through the FEPD circular No. 21, dated 16/05/2019. This circular includes Enterprises of HTPs and their Category, Foreign Investment in HTPs, Temporary Non-Resident Taka/Foreign Currency Account for foreign investors, Maintaining FC Accounts and Taka Accounts by Enterprises of HTPs, Export/Selling of goods/services from HTPs, Selling of Bangladeshi goods or raw materials or non-physical contents to enterprises of HTPs , Import by enterprises of HTPs , Credit Facilities, Repatriation of dividend to non-resident Shareholders of 'Type A' and 'Type B' enterprises of HTPs, Repatriation of royalty, technical know-how and technical assistance fees, Working in HTPs by foreign nationals and Reporting.

L) IMPORT OF RAW MATERIALS ON DEFERRED PAYMENT BASIS BY POWER GENERATING ENTERPRISES

To facilitate power sector industry, the usance period for import of raw materials has been enhanced up to 360 days from 180 days in case of power generating enterprises only.

M) EXPANSION OF SCOPE OF GREEN TRANSFORMATION FUND (GTF)

Bangladesh Bank (BB) has established the Green Transformation Fund (GTF) to accelerate sustainable growth in export-oriented textile and leather sectors conducive to transformation of green economy in the country. To widen the scope of Green Transformation Fund (GTF), it has been decided that the financing from GTF will be admissible to all manufacturer-exporters irrespective of sectors against import of capital machinery and accessories for implementing specified green/environment friendly initiatives keeping other instructions mentioned in FE circular No. 02, dated January 14, 2016 and its subsequent circulars unchanged.

N) LIMIT OF EXPORT DEVELOPMENT FUND (EDF) TO LEATHER GOODS AND FOOTWEAR INDUSTRIAL SECTORS

The maximum single borrower limit of borrowing capacity from EDF fund has been raised from $ 15 million to $20 million against loans provided to manufacturer-exporters of leather goods and footwear industrial sectors for input procurement by ADs. This enhancement will help in boosting leather goods especially footwear sector significantly.

O) TRANSACTIONS FROM PRIVATE FOREIGN CURRENCY (PFC) ACCOUNT FOR TRADE SETTLEMENT

BB has issued a circular providing clarification to eliminate confusion over the use of balance of PFC accounts. Funds from PFC accounts may be usable for payment of admissible imports in terms of Import Policy Order in force. Balances held in these accounts may also be usable for payment of legitimate services and also for payment in advance against import of legitimate goods and services.

P) REVISED POLICY ON FOREIGN EXCHANGE FOR PRIVATE TRAVEL ABROAD

Considering the travel expenses across the world, BB has increased private travel quota to USD 12,000.00 or equivalent per adult passenger during a calendar year from USD 5,000.00 and USD 7,000.00 for travel to SAARC countries and Myanmar, and for travel to other countries respectively. In accordance with the decision, global limit of travel entitlement for an adult passenger shall stand at USD 12,000.00 during a calendar year without limiting to regions or countries of travel. As usual, release of foreign exchange in the form of USD notes shall not exceed USD 5,000.00 per person within the entitlement. This limit was effective from January 2020.

Q) GUIDELINES REGARDING CASH INCENTIVE ON WAGE EARNERS REMITTANCE

BB has issued guidelines on providing 2 percent cash incentive for money to be remitted through banking channel into the country. Foreign remittance, worth of USD 1,500.00 or equivalent amount of other currencies or BDT 150,000.00 will not require any documents. Also the time for submitting necessary documents for getting cash incentives more than USD 1,500.00 has been extended up to 15 working days instead of five earlier. In the meantime, this facility stimulated remitters and the inflow of remittance has been jumped significantly.

R) OUTWARD REMITTANCES ON ACCOUNT OF IT EXPENSES THROUGH DIGITAL WALLET

BB has enhanced the ceiling for outward remittances in case of IT expenses through digital wallet to USD 500 from the earlier USD 300 to support freelancers. Authorized Dealers (ADs) are also allowed to release IT expenses within permissible limit on behalf of individual developers/freelancers through their notional accounts (digital wallet) maintained with Online Payment Gateway Service Providers (OPGSPs) along with virtual (debit/credit/pre-paid) cards. Developers or freelancers were permitted to remit their bona fide business expenses from their balance with Exporter Retention Quota Account through digital wallet.

S) REPATRIATION OF EXPORT PROCEEDS THROUGH ONLINE PAYMENT GATEWAY SERVICE PROVIDERS

ADs are allowed to repatriate remittances against small value service exports in non-physical form up to USD 10,000 instead of USD 5,000 per transaction through Online Payment Gateway Service Providers (OPGSPs).

T) EXPORT SUBSIDY/CASH INCENTIVE FOR THE FINANCIAL YEAR 2019-2020

BB has issued a set of instructions along with the rate of cash incentives (2 percent to 20 percent based on the types of export items) against export of products under 36 (thirty six) categories, including 1 percent additional special incentive for readymade garment products and 10 percent additional special incentive for consumer electronics & electrical home and kitchen appliances goods during the fiscal year 2019-2020.

U) COLLECTION OF BILL OF ENTRY AGAINST IMPORT THROUGH LAND PORTS

ADs are advised to follow usual procedure to match import payment with bill of entry as per stipulation of paragraph 31, chapter 7 of GFET-2018, Vol.-1 applicable only for those land custom houses using electronic system (ASYCUDA) for import clearance.

V) ISSUANCE OF INTERNATIONAL CARD FOR ONLINE PAYMENT OF REGISTRATION FEE ON ACCOUNT OF MEDICAL CHECK-UP FOR BANGLADESHI NATIONALS

ADs are allowed to issue International Debit/Prepaid/Credit Card in favor of Bangladeshi medical centers accredited by Gulf Health Council (GHC) to pay only the registration fee for medical check-up services of Bangladeshi nationals proceeding abroad for employment in member countries of Gulf Cooperation Council. Each medical center may avail only one card from any one of the card issuing banks.

W) OPENING OF BRANCH OFFICES ABROAD

In terms of paragraph 24, chapter 10 of the GFET-2018, Vol-1, prior approval of Bangladesh Bank is not required by the residents in Bangladesh for opening of branch offices/subsidiary companies abroad. This paragraph also permits annual remittance of up to USD 30,000 or equivalent to meet current expenses of such offices opened abroad. In no way, this authorization is useable for equity remittance to establish subsidiaries abroad. The central bank also made correction in the stated paragraph in the above Guidelines by repealing the words ‘subsidiary companies’.

X) PERFORMING HAJJ 1440 HIJRI/2019 UNDER GOVERNMENT AND PRIVATE MANAGEMENT

Each Pilgrim is allowed to carry USD 1000 or equivalent foreign currency while performing the next pilgrimage. This amount is outside of the overall expenses estimated by the ministry concerned for performing the Hajj.

Y) EXPORT POLICY OF 2018-2021

BB has asked all ADs to follow the Export Policy of 2018-2021 which is already been issued by a gazette notification of commerce ministry (no. 26.00.0000.100.42.006.17-202, dated-28/11/2018). The new policy would be effective until June 30, 2021. The new export policy aims to enhance the annual export value at USD 60 billion by 2021. In this policy, 13 sectors have got recognition as ‘highest priority sectors’, while 19 sectors as ‘special developing sectors.’

11.6 DEVELOPMENTS IN SMALL AND MEDIUM ENTERPRISE (SME) FINANCING

A) LOAN FUND FOR PRE-FINANCE UNDER PROGRAM TO SUPPORT SAFETY RETROFITS AND ENVIRONMENTAL UPGRADES IN THE BANGLADESHI READY-MADE GARMENTS (RMG) SECTOR PROJECT (SREUP)

The government, in support with Agence Francaise de Developpement of France, has constituted a loan fund in Bangladesh Bank worth 50 million euro to support safety remediation, environmental and social up-gradation of readymade garment factories. As per the circular, the Participating Financial Institutions (PFIs) would be provided with pre-finance for disbursing the credit to eligible RMG factories under the loan fund for safety retrofits and environmental up-gradation.

B) COMPLIANCE OF DIRECTIONS RELATED TO CONSIDERING PERSONAL GUARANTEE AS SUPPLEMENTARY COLLATERAL

According to the CMSME master circular dated 05/09/2019, banks and FIs are instructed to consider personal guarantee as supplementary collateral while sanctioning collateral free loan to small enterprises. Banks and FIs have been also advised to comply with the direction of supplementary collateral provision righteously and not to force entrepreneurs to provide personal guarantee from any specific group.

C) MASTER CIRCULAR ON CMSME FINANCING

Bangladesh Bank (BB) has reset its definition of micro, cottage, small and medium enterprises in line with the National Industrial Policy 2016 and set a limit to the amount of credit they can avail through issuance of master circular.

11.7 BFIU’S INITIATIVES TO MAINTAIN THE STABILITY OF THE FINANCIAL SYSTEM

A) NATIONAL STRATEGY PAPER FOR PREVENTING MONEY LAUNDERING AND COMBATING FINANCING OF TERRORISM 2019-2021:

BFIU along with the relevant stakeholders has formulated the “National Strategy Paper for Preventing Money Laundering and Combating Financing of Terrorism 2019-21.” This strategy paper covers key components such as, stemming illicit flow of funds and trade based money laundering, developing an effective judicial system, maintaining strict AML & CFT compliance by the reporting organizations (ROs), modernizing border control mechanisms, ensuring systematic freezing and confiscation of proceeds of crime and managing them effectively, promoting transparency in the ownership of legal persons and arrangements, ensuring corporate governance in the reporting agencies and other corporate vehicles for further strengthening of AML & CFT regime.

B) ISSUANCE OF CIRCULAR ON GUIDELINES FOR PREVENTION OF TRADE BASED MONEY LAUNDERING

BFIU has issued a circular providing Guideline for Prevention of Trade Based Money Laundering for banks to establish structures and processes for preventing and reporting trade-based money laundering (TBML). Through this circular, all banks are instructed to formulate their own guidelines in the light of the issued guidelines for onward submission to BFIU by 10 March 2020 and also ensure the implementation of the guideline by 01 June, 2020.

C) EXCHANGE OF INFORMATION AMONG THE REPORTING ORGANIZATIONS

BFIU has issued the circular regarding information sharing among the financial institutions for the purpose of combating money laundering and terrorist financing by maintaining proper confidentiality.

D) MONEY LAUNDERING & TERRORIST FINANCING RISK ASSESSMENT GUIDELINES

BFIU has forwarded "Money Laundering & Terrorist Financing Risk Assessment Guidelines" to banks and instructed them to implement that guidelines vide its Circular Letter No. 01/2015 dated 08.01.2015.

E) ISSUANCE OF GUIDANCE NOTE

BFIU has issued 4 (four) guidance notes for all the reporting. These are 'Guidance notes on Politically Exposed Persons', 'Guidance on Suspicious Transaction Report', 'Guidance on Beneficial Owner' and 'Guidance Notes for Prevention of Terrorist Financing and Financing of Weapons of Mass Destruction'.

F) MOU WITH DIFFERENT COUNTRIES

BFIU has signed Memorandum of Understanding (MOU) with 4 Financial Intelligence Units (FIUs) of different countries. These MOUs facilitate sharing of information related to money laundering and terrorist financing with other FIUs around the world.

11.8 THE PERFORMANCE OF FINANCIAL INTEGRITY AND CUSTOMER SERVICES DEPARTMENT (FICSD)

FICSD has been playing a vital role in bringing discipline and desired changes in the financial sector by resolving various types of complaints of the banking customers through phone, fax, web-based complaint box, mails/emails, hotline (13236) and some popular social communications media or directly during the office hours of the working days. A total number of 5006 complaints have been resolved and a number of 90 special inspections were conducted during 2019 by FICSD. "BB Complaints"- Mobile Apps has been launched publicly to receive complaints from the banking customers. The CIPC call center is also interlinked with national call center. Moreover, launching of an International Call Centre is under process aiming to resolve various remittance and banking related complaints and impediments of the expatriates.

11.9 DEVELOPMENTS IN THE AREAS OF AGRICULTURAL AND RURAL CREDIT

A) AGRICULTURAL & RURAL CREDIT POLICY AND PROGRAM FOR THE FY 2019-2020

Bangladesh Bank has published its annual agricultural and rural credit policy and program for the financial year 2019-2020 to ensure proper credit flow to the agricultural sector which in turn will help to achieve the prime objectives of sustainable development goals (SDGs).

B) AGRICULTURAL LOAN FACILITY FOR THE FLOOD AFFECTED FARMERS

BB has issued a circular for all the scheduled banks regarding agricultural loan facilities to the flood-affected farmers whose crops were damaged by recent flood in different districts including northern part and haor areas of the country. In this regard, BB has instructed the scheduled banks to provide new loans based on actual demand and realities for continuing the agro production activities in the flood affected areas.

11.10 POLICIES FOR SUSTAINABLE FINANCE

A) ACCREDITATION OF ALL SCHEDULED BANKS & FIs' INVESTMENT IN IMPACT FUND AS GREEN FINANCE

As per Sustainable Finance Department circular no.01/2019, all the investment of banks and FIs in impact fund registered under Bangladesh Securities and Exchange Commission (Alternative Investment) Rules, 2015 and has been established for Specific sectors/purposes such as resource efficiency, air emission and quality efficiency, resource recycling, waste management, renewable energy, land contamination prevention/mitigation, energy efficiency, land acquisition etc will get the treatment of Green Finance.

B) ASSISTANCE UNDER CORPORATE SOCIAL RESPONSIBILITY (CSR) PROGRAM

To overcome the effect of the flood and dengue fever, Bangladesh Bank has instructed banks and financial institutions to provide necessary assistance (financial & non-financial) to the flood and dengue affected people under their corporate social responsibility (CSR) program.

11.11 PROGRESS IN THE AREA OF PAYMENT SYSTEMS

A) GUIDELINES FOR NATIONAL PAYMENT SWITCH BANGLADESH (NPSB) LOGO

BB has prepared NPSB logo and issued a guideline for the mandatory usage of the NPSB logo vide PSD circular letter no.1 dated March 11, 2019 amid growing volume of inter-bank services through the use of NPSB system.

B) MOBILE FINANCIAL SERVICES (MFS) TRANSACTION

Bangladesh Bank has issued a set of instructions like transaction limit and frequency, transaction procedure etc. to ensure systematic and proper use of mobile financial services (MFS). Through this circular, BB has increased the limit and frequency of Mobile Financial Services (MFS) transaction.

C) TRANSACTION LIMIT FOR E-WALLET OPERATED BY PAYMENT SERVICE PROVIDER (EXCLUDING MFS)

BB has set the limit of e-wallet transactions operated by payment service providers except Mobile Financial Service (MFS). For personal e-wallet account, the limit for deposit balance will be BDT 1,00,000 to BDT 4,00,000 and the limit for balance transfer from BDT 1,00,000 per day and BDT 4, 00,000 maximum per month.

D) BANGLADESH AUTOMATED CHEQUE PROCESSING SYSTEM (BACPS) OPERATING RULES AND PROCEDURES

BACPS Operating Rules and Procedures issued vide PSD Circular No. 01/2010 has been reviewed further with a view to facilitating the banks in clearing and settlement operations under the upgraded BACPS system. All scheduled banks participating in the Bangladesh Automated Clearing House (BACH) have been advised thereby to follow the BACPS Operating Rules and Procedures V 2.0 for their clearing and settlement operation accordingly.

11.12 PROGRESS IN FINANCIAL SECTOR SUPPORT PROJECT

Bangladesh Bank (BB) has undertaken the Financial Sector Support Project (FSSP) with the financial assistance from the International Development Association (IDA) of the World Bank (WB) Group. Under the 'Strengthening Regulatory and Supervisory Capacity', a Bank Supervision Specialist firm has been appointed in June, 2019 in order to help Bangladesh Bank in pursuing and achieving financial sector stability and ensuring a safe and sound banking system.

11.13 DEVELOPMENTS IN MICRO CREDIT OPERATIONS

The Microcredit Regulatory Authority (MRA) has issued a number of directives/guidelines during the year 2019. Some of the key initiatives of MRA are as follows:

i. All licensed Micro Credit Institutions are advised to re-fix the rate of service charge up to 24 percent instead of 27 percent as per 'reducing balance method'.

ii. All licensed Micro Credit Institutions are instructed to preserve the hard copy of General Ledger and Cash Book in each financial year.

iii. Directives are also issued to extend support and to provide relief materials & necessary assistance for the microcredit clients of flood affected areas.

11.14 SECURITIES LAWS/ORDER/NOTIFICATION/DIRECTIVE/GUIDELINE ISSUED BY BANGLADESH SECURITIES AND EXCHANGE COMMISSION (BSEC)

The BSEC has issued a number of securities laws/order/notification/directive/guideline during the year 2019. Some of the key initiatives are as follows:

i. In the interest of investors and securities market and for the development of securities market BSEC has issued certain directives for regulating the share price movement in the stock exchange trading by an order (No. BSEC/CMRRCD/2001-07/229) dated 14 November 2019.

ii. The BSEC has issued directives with necessary instructions to all Stock Brokers, Stock Dealers and registered merchant bankers to keep the provision against unrealized losses.

iii. The BSEC has also issued several directives on mutual funds; lock in period, block of securities, IPO & Rights issue, holding of shares by sponsors & directors, declaration of bonus shares etc. for ensuring environment conducive to vibrant capital market.

11.15 DEVELOPMENTS IN INSURANCE SECTOR

The Insurance Development and Regulatory Authority (IDRA) has taken necessary steps for building the confidence level of the general people of Bangladesh about the insurance sector and its ongoing claim settlement systems. The IDRA has worked on the following issues during 2019:

i. Solvency margin of Non-life and Life insurance companies.

ii. Procedure for preparation of Accounts and Balance sheet by Non-life and Life insurance companies.

iii. Regulation regarding life assets and non-life assets.

iv. Stop of open cover note.

v. Good Governance.

vi. Establishment of Call center for answering queries and settlement of complaints by the insurance companies.

vii. Regulation about financial management by the insurance companies.

viii. Regulation about crossing of 100 percent sum insured for single risk, minimum rating status of reinsurers, revocation of insurance policy and deduction of government tax, excise duty & AIT etc.

Appendix

Appendix I: Gross Value Added (GVA) of Bangladesh at constant price							
							(In Billion BDT)
Sectors	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19**
Agriculture	1,174.4	1,225.7	1,266.5	1,301.8	1,340.5	1,396.6	1,451.4
Industry	2,030.1	2,195.7	2,408.0	2,675.1	2,948.7	3,304.3	3,722.9
Service	3,794.9	4,008.4	4,240.9	4,505.8	4,807.3	5,114.4	5,461.3
Total GVA at constant price	6,999.4	7,429.8	7,915.4	8,482.7	9,096.5	9,815.3	10,635.6
GVA growth rate	6.1	6.2	6.5	7.2	7.2	7.9	8.4

Source: *Bangladesh Bureau of Statistics.*

Appendix II: Domestic Credit								
								(In Billion BDT)
Year	**CY12**	**CY13**	**CY14**	**CY15**	**CY16**	**CY17**	**CY18**	**CY19**
Domestic Credit to the Private Sector	4,328.9	4,787.7	5,434.1	6,205.1	7,170.2	8,460.9	9,588.5	10531.5
Domestic Credit to the Public Sector	1,140.1	1,272.0	1,303.3	1,201.4	1,150.2	1,059.0	1,215.0	1,874.5
								(In Percentage)
Growth of Domestic Credit to the Private Sector**	16.6	10.6	13.5	14.2	15.6	18.0	13.3	9.8
Growth of Domestic Credit to the Public Sector	3.4	11.6	2.5	-7.8	-4.3	-7.9	14.7	54.3

Notes: (1) Domestic Credit to the Private Sector refers to the credit provided to the private sector by the banking system.
(2) Domestic Credit to the Public Sector refers to the credit provided to the public sector by the banking system.

Source: *Monthly Economic Trend, BB (Various issues).*

Appendix III: Workers' Remittance by Major Countries

In Million USD

Quarters	Saudi Arabia	U.A.E.	Kuwait	U.S.A.	Other Major Countries*
2013Q1	1019.8	746.0	302.6	486.3	707.8
2013Q2	804.4	626.4	285.6	470.1	682.0
2013Q3	709.2	620.4	267.1	529.5	669.8
2013Q4	768.7	662.0	279.9	577.0	711.8
2014Q1	844.5	707.2	275.5	609.0	747.1
2014Q2	796.6	695.3	284.4	607.8	795.8
2014Q3	848.2	723.6	284.5	648.4	883.0
2014Q4	756.3	660.1	255.6	518.6	756.5
2015Q1	837.1	712.7	259.7	572.5	845.5
2015Q2	903.5	721.5	277.9	640.5	934.0
2015Q3	785.2	704.3	261.6	678.7	915.8
2015Q4	737.7	623.1	253.4	604.9	808.2
2016Q1	716.3	662.6	254.9	564.2	837.7
2016Q2	720.9	725.0	268.0	566.0	967.7
2016Q3	603.6	554.7	245.8	430.1	854.4
2016Q4	541.4	468.9	259.0	379.6	764.0
2017Q1	515.1	482.4	243.3	389.2	826.8
2017Q2	607.1	587.5	285.2	490.1	940.3
2017Q3	592.0	514.7	250.7	481.1	891.0
2017Q4	609.4	623.5	276.3	481.0	901.8
2018Q1	653.4	570.9	322.9	463.3	1093.6
2018Q2	736.8	720.9	349.9	572.5	1129.1
2018Q3	726.8	606.9	317.1	446.3	1061.8
2018Q4	696.4	544.3	317.2	419.0	967.6
2019Q1	817.8	714.4	402.5	467.6	1180.9
2019Q2	869.5	674.8	426.5	509.9	1253.0
2019Q3	947.3	624.7	377.8	490.3	1261.2
2019Q4	1007.2	714.9	367.8	611.5	1306.3

*Consists of U.K, Qatar, Oman, and Malaysia.

Source: *Statistics Department, BB, Remittance Earnings (Quarterly Publication),BB (Various issues).*

Appendix IV: World GDP growth

(In percentage)

SL No.	Particulars	2015	2016	2017	2018	2019	2020p*	2021p*
1	World	3.5	3.4	3.8	3.6	2.9	-3.0	5.8
2	Advanced Economies	2.3	1.7	2.5	2.2	1.7	-6.1	4.5
3	Emerging and Developing Asia	6.8	6.7	6.6	6.4	5.6	-1.0	6.6

Source: *World Economic Outlook, October 2019 and April 2020.*

Note: p = Projection.*

Appendix V: GDP growth of Top 5 Import Originating Countries

(In percentage)

SL No.	Name of Country	2015	2016	2017	2018	2019	2020p*	2021p*
1	China	6.9	6.7	6.8	6.6	6.1	5.8	5.9
2	India	8.0	8.2	7.2	6.8	6.1	7.0	7.4
3	Singapore	2.9	3.0	3.7	3.1	0.5	1.0	1.6
4	Japan	1.2	0.6	1.9	0.8	0.9	0.5	0.5
5	Brazil	-3.6	-3.3	1.1	1.1	0.9	2.0	2.4

Source: *World economic outlook, October 2019.*

Note: p = Projection.*

Appendix VI: GDP growth of Top 5 Export Destination Countries

(In percentage)

SL No.	Name of Country	2015	2016	2017	2018	2019	2020p*	2021p*
1	Germany	1.7	2.2	2.5	1.5	0.5	1.2	1.4
2	USA	2.9	1.6	2.4	2.9	2.4	2.1	1.7
3	UK	2.3	1.8	1.8	1.4	1.2	1.4	1.5
4	Spain	3.7	3.2	3.0	2.6	2.2	1.8	1.7
5	France	1.1	1.1	2.3	1.7	1.2	1.3	1.3

Source: *World economic outlook, October 2019.*

Note: p = Projection.*

Appendix VII: GDP growth of Top 5 Remittance Generating Countries

(In percentage)

SL No.	Name of Country	2015	2016	2017	2018	2019	2020p*	2021p*
1	KSA	4.1	1.7	-0.7	2.4	0.2	2.2	2.2
2	UAE	5.1	3.0	0.5	1.7	1.6	2.5	2.7
3	USA	2.9	1.6	2.4	2.9	2.4	2.1	1.7
4	Kuwait	0.6	2.9	-3.5	1.2	0.6	3.1	2.6
5	Malaysia	5.0	4.5	5.7	4.7	4.5	4.4	4.9

Source: *World economic outlook, October 2019.*

Note: p = Projection.*

**** World Economic Outlook, April 2020 has been published by the IMF, where growth projections have been updated based on the ongoing recession worldwide due to corona virus pandemic. So countrywise projections for 2020 & 2021 may be updated based on WEO, April 2020.*

Appendix VIII: Yield of 10-year government bond of major economies				
				(In percent)
Month	USA	EU	China	UK
Jan'19	2.63	1.21	3.15	1.25
Feb'19	2.72	1.12	3.20	1.34
Mar'19	2.41	0.99	3.09	1.09
Apr'19	2.50	0.95	3.42	1.22
May'19	2.13	0.87	3.32	0.98
June'19	2.01	0.58	3.20	0.95
July'19	2.01	0.36	3.16	0.73
Aug'19	1.50	0.10	3.07	0.52
Sep'19	1.67	0.05	3.16	0.51
Oct'19	1.69	0.14	3.31	0.65
Nov'19	1.77	0.31	3.20	0.74
Dec'19	1.92	0.37	3.19	0.91

Source: *European Central bank, Bank of England and Reuters.*

Appendix IX: Banking Sector Aggregate Balance Sheet						
Particulars	***(Amount in Billion BDT)***				***Change (%)***	
	2016	**2017**	**2018**	**2019**	**2017 to 2018**	**2018 to 2019**
Property & Assets						
Cash in Hand (including FC)	106.5	117.6	139.7	161.6	18.8	15.7
Balance with BB & SB (including FC)	760.2	833.1	853.9	916.1	2.5	7.3
Balance with other Banks & FIs	506.1	684.7	851.9	766.1	24.4	(10.1)
Money at Call & Short Notice	47.8	71.5	62.1	60.3	(13.1)	(2.9)
Investments						
Government	1,174.6	1,104.7	977.2	1410.3	(11.5)	44.3
Others	964.9	814.2	980.4	1097.7	20.4	12.0
Total Investment	2,139.5	1,918.9	1,957.6	2,508.0	2.0	28.1
Loans & Advances						
Loans, CC, OD etc.	6,787.5	8,050.8	9,226.8	10,310.1	14.6	11.7
Bills purchased & Discounted	348.5	436.4	458.2	523.9	5.0	14.3
Total Loans & Advances	7,136.0	8,487.2	9,685.0	10,834.0	14.1	11.9
Fixed Assets	225.2	226.7	229.0	237.8	1.0	3.8
Other Assets	696.8	715.8	783.8	800.1	9.5	2.1
Non-banking Assets	3.7	3.7	3.9	4.7	5.4	20.5
Total Assets	11,621.7	13,059.3	14,566.9	16,288.7	11.5	11.8
Liabilities						
Borrowings from other Banks/FIs/Agents	488.7	711.1	876.1	1001.6	23.2	14.3
Deposits & Other Accounts:						
Current Deposit	1791.0	2,048.1	2,245.0	2,454.8	9.6	9.3
Savings Deposit	1773.6	2,015.1	2,255.9	2,477.1	11.9	9.8
Fixed/Term Deposit	4765.0	5,174.2	5,676.5	6,376.9	9.7	12.3
Inter-bank Deposit	169.9	285.1	387.8	311.1	36.0	(19.7)
Other Deposits	562.4	596.9	620.9	830.1	4.0	33.7
Total Deposit	9,061.9	10,119	11,186.1	12,450.0	10.5	11.3
Bills Payable	150.4	138.0	146.9	174.2	6.4	18.6
Other Liabilities	1065.5	1,180.6	1,431.4	1,638.9	21.2	14.5
Total Liabilities	10,766.6	12,148.9	13,640.5	15,264.7	12.3	11.9
Capital/Shareholder's Equity	855.1	910.3	926.4	1024.0	1.8	10.5
Total Liabilities & Shareholder's Equity	11,621.7	13,059.3	14,566.9	16,288.7	11.5	11.8
Off-balance Sheet Items	2,966.7	4,535.5	4,941.8	4,807.9	9.0	(2.7)

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

Appendix X: Banking Sector Aggregate Share of Assets

(Amount in Billion BDT)

Particulars	2017	% of Total Assets	2018	% of Total Assets	2019	% of Total Assets
Property & Assets						
Cash in Hand (including FC)	117.6	0.9	139.7	1.0	161.6	1.0
Balance with BB & SB (including FC)	833.1	6.4	853.9	5.9	916.1	5.6
Balance with other Banks & FIs	684.7	5.2	851.9	5.8	766.1	4.7
Money at Call & Short Notice	71.5	0.5	62.1	0.4	60.3	0.4
Investments						
Government	1,104.7	8.5	977.2	6.7	1410.3	8.7
Others	814.2	6.2	980.4	6.7	1097.7	6.7
Total Investments	1,918.9	14.7	1,957.6	13.4	2,508.0	15.4
Loans & Advances						
Loans, CC, OD etc.	8,050.8	61.6	9,226.8	63.3	10,310.1	63.3
Bills purchased & Discounted	436.4	3.3	458.2	3.1	523.9	3.2
Total Loans and Advances	8,487.2	65.0	9,685.0	66.5	10,834.0	66.5
Fixed Assets	226.7	1.7	229.0	1.6	237.8	1.5
Other Assets	715.8	5.5	783.8	5.4	800.1	4.9
Non-banking Assets	3.7	0.0	3.7	0.0	4.7	0.0
Total Assets	13,059.3	100.0	14,566.9	100.0	16,288.7	100.0

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

Appendix XI: Banking Sector Aggregate Share of Liabilities

(Amount in Billion BDT)

Particulars	2017	% of Total Liabilities	2018	% of Total Liabilities	2019	% of Total Liabilities
Liabilities						
Borrowings from other Banks/FIs/Agents	711.1	5.9	876.1	6.4	1001.6	6.6
Deposits & Other Accounts:						
Current Deposit	2,048.1	16.9	2,245.0	16.5	2,454.8	16.1
Savings Deposit	2,015.1	16.6	2,255.9	16.5	2,477.1	16.2
Fixed/Term Deposit	5,174.2	42.6	5,676.5	41.6	6,376.9	41.8
Inter-bank Deposit	285.1	2.3	387.8	2.8	311.1	2.0
Other Deposits	596.9	4.9	620.9	4.6	830.1	5.5
Total Deposit	10,119	83.3	11,186.1	82.0	12,450.0	81.6
Bills Payable	138.0	1.1	146.9	1.1	174.2	1.1
Other Liabilities	1,180.6	9.7	1,431.4	10.5	1,638.9	10.7
Total Liabilities	12,148.9	100.0	13,640.5	100.0	15,264.7	100.0

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

Appendix XII: Banking Sector Aggregate Income Statement

Particulars	(Amount in Billion BDT)				Change (%)	
	2016	2017	2018	2019	2017 to 2018	2018 to 2019
Interest Income	639.5	706.1	861.8	992.6	22.1	15.2
Less: Interest Expense	460.6	480.5	585.3	688.7	21.8	17.7
Net Interest Income	178.9	225.6	276.5	303.8	22.6	9.9
Non-Interest/Investment Income	283.5	292.4	278.3	299.0	(4.8)	7.4
Total Income	462.4	518.0	554.8	602.8	7.1	8.7
Operating Expenses	246.4	271.5	288.5	318.3	6.3	10.3
Profit before Provision	216	246.5	266.4	284.5	8.1	6.8
Total Provision	72	73.6	146.2	114.8	98.6	(21.5)
Profit before Taxes	144	172.9	120.2	169.8	(30.5)	41.3
Provision for Taxation	60.9	77.8	79.8	93.9	2.6	17.7
Profit after Taxation/Net Profit	83.1	95.1	40.4	75.8	(57.5)	87.6

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

Appendix XIII: Banking Sector Assets, Deposits & NPL Concentration (CY19)

(Amount in Billion BDT)

Assets*	Top 5 Banks	Other Banks	Top 10 Banks	Other Banks
Amount (in billion BDT)	4883.2	11405.5	7130.9	9157.8
Share (%)	30.0%	70.0%	43.8%	56.2%
Deposit**	**Top 5 Banks**	**Other Banks**	**Top 10 Banks**	**Other Banks**
Amount (in billion BDT)	3,813.2	8,325.8	5,502.4	6,636.6
Share (%)	31.4%	68.6%	45.3%	54.7%
NPL***	**Top 5 Banks**	**Other Banks**	**Top 10 Banks**	**Other Banks**
Amount (in billion BDT)	431.7	511.6	597.5	345.8
Share (%)	45.8%	54.2.1%	63.3%	36.7%

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

** Based on assets in descending order; **Based on deposits in descending order excluding interbank deposits; ***Based on nonperforming loans in descending order.*

Appendix XIV: Banking Sector Loan Loss Provisions

(Amount in Billion BDT)

Year	Required Provision	Provision Maintained	Surplus/(Shortfall)
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)
2018	570.4	504.3	(66.1)
2019	613.1	546.6	(66.5)

Source: *Banking Regulation and Policy Department, Bangladesh Bank.*

Appendix XV: Banking Sector Year-wise Gross NPL Ratio & Its Composition

(In percentage)

Year	Gross NPL to Total Loans Outstanding	Sub-Standard Loans to Gross NPL	Doubtful Loans to Gross NPL	Bad Loans to Gross NPL
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
2018	10.3	9.4	4.7	85.9
2019	9.3	9.1	4.1	86.8

Source: *Banking Regulation and Policy Department, Bangladesh Bank.*

Appendix XVI: Banking sector NPL Composition (CY19)

(Amount in Billion BDT)

Particulars	Amount		% of Gross NPL	
	CY18	CY19	CY18	CY19
Sub-Standard	87.8	85.8	9.4	9.1
Doubtful	44.3	38.7	4.7	4.1
Bad & Loss	806.9	818.8	85.9	86.8
Total	939.0	943.3	100.0	100.0

Source: *Banking Regulation and Policy Department, Bangladesh Bank.*

Appendix XVII: Banking Sector Deposits Breakdown excluding Interbank Deposit (CY19)

(Amount in Billion BDT)

Current deposits	2,454.8	20.2%
Savings deposits	2,477.0	20.4%
Term deposits	6,370.0	52.5%
Other Deposits	830.1	6.8%
Total deposit	12,139.0	100.0%

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

Appendix XVIII: Banking Sector Selected Ratios

(In percentage)

Ratio	CY15	CY16	CY17	CY18	CY19
ROA	0.8	0.7	0.7	0.3	0.5
ROE	9.4	9.7	10.4	4.4	7.4
Net Interest Margin	1.7	1.9	2.0	2.2	2.1
Interest Income to Total Assets	6.2	5.5	5.4	5.9	6.1
Net- Interest Income to Total Assets	1.5	1.5	1.7	1.9	1.9
Non-Interest Income to Total Assets	2.7	2.4	2.2	1.9	1.8
Non-interest Expense to Gross Operating Income	48.6	53.3	52.4	52.0	52.8
CRAR	10.8	10.8	10.8	10.5	11.6
Tier-1 Capital to RWA ratio	8.2	7.9	7.6	6.8	7.7
Gross NPL to Total Loans Outstanding	8.8	9.2	9.3	10.3	9.3
Gross NPL to Capital	60.8	74.2	81.6	101.4	92.1
Maintained Provision to Gross NPL	51.8	49.4	50.5	53.7	57.9

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

Appendix XIX: Banking Sector ROA & ROE

ROA (%)	Number of Banks		ROE (%)	Number of Banks	
	2018	2019		2018	2019
Up to 2.0	51	54	Up to 5.0	14	18
> 2.0 to 3.0	4	1	> 5.0 to 10.0	13	11
>3.0to 4.0	0	1	>10.0 to 15.0	23	19
>4.0	2	2	>15.0	07	10

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

Appendix XX: Banking Sector Capital to Risk-Weighted Assets ratio (CRAR) - Solo Basis (CY19)

Range	Number of Banks
<10%	10
>=10% to 15%	26
>15% to 20%	10
>20%	12
Total	**58**

Appendix XXI: Banking Sector Year-wise ADR at end-December

(In percentage)

Year	Advance-Deposit Ratio (ADR)
2015	71.0
2016	71.9
2017	75.9
2018	77.6
2019	77.3

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

Appendix XXII: Banking Sector ADR (CY19)	
Range	**Number of Banks**
Up to 70%	10
> 70% to 85%	37
> 85% to 90%	06
>90% to 100%	03
>100%	02
Total	**58**

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

Appendix XXIII: Year-wise Banking Sector LCR and NSFR at end-December		
		(In percentage)
Year	**LCR**	**NSFR**
2016	197.6	109.3
2017	174.9	107.5
2018	173.3	109.4
2019	200.5	111.2

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

Appendix XXIV: Banking Sector Leverage ratio - Solo Basis (CY19)	
Range	**Number of Banks**
<3%	08
>=3% to 10%	36
> 10% to 20%	09
>20%	05
Total	58

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

Appendix XXV: Islamic Banks' Aggregate Balance Sheet						
Particulars	*(Amount in billion BDT)*				**Change (%) 2017 to 2018**	**Change (%) 2018 to 2019**
	2016	**2017**	**2018**	**2019**		
Property & Assets						
Cash in Hand (including FC)	19.2	24.8	27.0	29.6	8.9	9.6
Balance with BB and SB (including FC)	187.9	206.4	162.2	199.4	(21.4)	22.9
Balance with other Banks andFIs	79.7	111.1	124.9	160.3	12.4	28.3
Money at Call and Short Notice	0.5	0.5	0	0	(100)	0
Investments						
Government	42	49.4	49.6	76.0	0.4	53.2
Others	77.9	58.8	69.8	92.9	18.7	33.1
Total Investments	**119.9**	**108.2**	**119.4**	**168.9**	**10.4**	**41.5**
Investments & Advances						
Investments & Advances	1531.2	1819.2	2117.8	2397.2	16.4	13.2
Bills Purchased and Discounted	96	129.8	115.1	109.5	(11.3)	(4.9)
Total Investments and Advances	1627.2	1949.0	2232.9	2506.7	14.6	12.3
Fixed Assets	35.3	35.9	37.3	43.6	3.9	16.9
Other Assets	77.2	82.4	79.5	79.1	(3.5)	(0.5)
Non-banking Assets	1	1.1	1.1	1.1	(0.0)	0.0
Total Assets	**2148**	**2519.4**	**2784.4**	**3188.8**	**10.5**	**14.5**
Liabilities						
Borrowings from other Banks/FIs/Agents	74	139.2	182.0	172.2	30.7	(5.4)
Deposits & Other Accounts						
Current Deposit	115.4	118.4	118.3	250.1	(0.1)	111.4
Savings Deposit	335.1	378.2	437.1	478.1	15.6	9.4
Fixed/Term Deposit	1109.4	1303.3	1375.4	1503.8	5.5	9.3
Interbank Deposit	27.74	71.9	116.3	105.8	61.8	(9.0)
Other Deposit	197.4	191.7	204.8	271.3	6.8	32.5
Total Deposits	**1757.3**	**2063.5**	**2251.9**	**2609.1**	**9.1**	**15.9**
Bills Payable	18	20.8	18.0	26.2	(13.5)	45.6
Other Liabilities	136.6	157.4	187.7	222.0	19.3	18.3
Total Liabilities	**2013.6**	**2380.9**	**2639.6**	**3029.4**	**10.9**	**14.8**
Capital/Shareholder's Equity	**134.5**	**138.5**	**144.8**	**159.4**	**4.5**	**10.1**
Total Liabilities & Shareholder's Equity	**2148.1**	**2519.4**	**2784.4**	**3188.8**	**10.5**	**14.5**
Off-balance Sheet Items	**425.1**	**507.9**	**523.9**	**580.7**	**3.2**	**10.8**

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

Appendix XXVI: Islamic Banks' Aggregate Income Statement						
Particulars	*(Amount in billion BDT)*				Change (%) 2017 to 2018	Change (%) 2018 to 2019
	2016	2017	2018	2019		
Profit Income	156.9	159.8	209.5	241.4	31.1	15.2
Less: Profit Expenses	94.1	105.1	135.4	158.7	28.8	17.2
Net Profit Income	**62.8**	**65.3**	**74.1**	**82.7**	**13.5**	**11.6**
Non-Profit/Investment Income	20.2	24.3	25.7	30.2	5.8	17.5
Total Income	**83**	**89.6**	**99.9**	**112.8**	**11.5**	**12.9**
Operating Expenses	40.7	44.0	49.4	57.3	12.3	16.0
Profit before Provision	**42.2**	**45.6**	**50.5**	**55.5**	**10.7**	**9.9**
Total Provision	8.8	10.4	15.6	16.7	50.0	7.1
Profit before Taxes	**33.4**	**35.2**	**34.9**	**38.8**	**(0.9)**	**11.2**
Provision for Taxation	15.8	17.0	19.4	20.7	14.1	6.7
Profit after Taxation (i.e., Net Profit)	**17.6**	**18.2**	**15.5**	**18.2**	**(14.8)**	**17.4**

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

Appendix XXVII: Share of Islamic Banks in the Banking Sector (CY19)			
			(Amount in billion BDT)
Particulars	All Banks	Islamic Banks	Share of Islamic Banks (%)
Property & Assets			
Cash in hand	161.6	29.6	18.3
Due from BB and other banks/FIs	1,682.1	359.7	21.4
Money at Call and Short Notice	60.3	-	-
Investments in securities	2,508.0	168.9	6.7
Investments (Loans and advances)	10,834.0	2,506.7	23.1
Other Assets	800.1	79.1	9.9
Total Assets	**16,288.7**	**3,188.8**	**19.6**
Liabilities			
Due to financial institutions	1,001.6	172.2	17.2
Total deposits	12,450.0	2,609.1	21.0
Bills Payable	174.2	26.2	15.0
Other liabilities	1,638.9	222.0	13.5
Total Liabilities	**15,264.7**	**3,029.4**	**19.8**
Capital/Shareholder's Equity	**1023.9**	**159.4**	**15.6**
Total Liabilities & Shareholder's Equity	**16,288.7**	**3,188.8**	**19.6**
Off-balance Sheet Items	**4,807.9**	**580.7**	**12.1**

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

Appendix XXVIII: Selected Ratios of Islamic Banks and the Banking Sector (CY19)		
		(In percentage)
Ratio	**Overall Banking Sector**	**Islamic Banking Sector**
ROA	0.5	0.6
ROE	7.4	11.4
Net Profit Margin	2.1	2.9
Profit (Interest) Income to Total Assets	6.1	7.6
Net-profit (Interest) Income to Total Assets	1.9	2.6
Non-Profit (Interest) Income to Total Assets	1.8	0.9
Investment (Advance)-Deposit Ratio	77.3	94.3
CRAR	11.6	12.4
Classified Investment (Advances) to Investments	9.3	4.7
Classified Investment (Advances) to Capital	92.1	71.7

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

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

Appendix XXIX: Islamic Banks' CRAR (CY19)	
CRAR	**Number of Islamic Banks**
Below 10%	1
10% to 12%	1
>12%	6
Total	**8**

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

Appendix XXX: Islamic Banks' Leverage Ratio (CY19)	
Leverage ratio	**Number of Islamic Banks**
Below 3%	1
3% to 5%	4
>5%	3

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

Appendix XXXI: Islamic Bank's Investment (Advance)-Deposit Ratio (as of end-December 2019)			
			(Amount in billion BDT)
Items	**Islamic Banks**	**Islamic Branches/Windows**	**Islamic Banking Sector**
Deposits (Excluding Interbank)	2,582.0	152.0	2,734.1
Investments* (Excluding Interbank)	2,153.8	124.7	2,558.4
IDR	94.3	82.0	93.6

**Credits are termed as investments in Islamic Banking.*

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

Appendix XXXII: Methodology of Performance map of Islamic Banks

The performance map presents an overall assessment of changes in underlying conditions and risk factors measured through five composite indices namely growth, asset quality, profitability, liquidity and efficiency during a period. The ratios used for constructing each composite index are shown in Table 1.

Table 1: Ratios used for constructing the Performance map of Islamic Banks

Dimension	Ratio		
Growth	Growth in investments, Deposits, Equity and Total Assets	Change in Market share in terms of investments, Deposits, Equity and Total Assets	
Capital Adequacy	CRAR	CCB Ratio	Leverage Ratio
Asset Quality	GNPL Ratio	NNPL Ratio	RSDL Ratio
Efficiency	ROA ratio	NIM Ratio	NNII Ratio
Liquidity	LCR	NFSR	IDR

Each composite index takes values between zero and 1where a higher value means the risk in that dimension is high. Therefore, an increase in the value of the index in any particular dimension indicates an increase in risk in that dimension for that period as compared to other periods. Each index is normalized by using the following formula:

$$\frac{X_t\text{-}min\,(X_t)}{max\,(X_t)\text{-}min\,(X_t)}$$

Where, X_t is the value of the ratio at time t. A composite index of each dimension is calculated as a weighted average of normalized ratios used for that dimension where the weights are based on subjective judgment.

Appendix XXXIII: Overseas Branches' Aggregate Share of Assets & Liabilities

(Amount in million USD)

Assets	CY18	% of Total Assets	CY19	% of Total Assets	Liabilities	CY18	% of Total Liabilities	CY19	% of Total Liabilities
Cash and Balance from Central Banks	52.6 [R]	20.4	104.5	30.4	Customer Deposits	193.2	91.9	271.1	92.6
Balance with other Banks and FIs	123.3 [R]	47.7	142.5	41.4	Dues to head office and branches abroad and other liabilities	16.9[R]	8.1	21.8	7.4
Loans and Advances	73.8 [R]	28.5	83.7	24.3	Total Liabilities	210.1[R]	100.0	292.9	100.0
Property and Equipment and other assets	8.8 [R]	3.4	13.6	4.0	Capital/ Equity	48.4	-	51.5	-
Total Assets	258.5 [R]		344.4		Total Liabilities & Equity		258.5 [R]	344.4	

Source: *Scheduled Banks of Bangladesh*

R= Revised

Appendix XXXIV: FIs' Aggregate Balance Sheet

(Amount in Billion BDT)

Items	CY15	CY16	CY17	CY18	CY19
Property & Assets:					
Cash in hand	0.01	0.02	0.02	0.02	0.03
Balance with other banks and FIs	94.7	86.7	133.6	115.1R	110.8
Money at call and short notice	0.1	1.4	0.4	0.8	0.7
Investment in Government securities	0.8	1.5	0.5	0.5	1.0
Other investments	19.4	21.4	21.7	21.7R	22.4
Total loans and leases	448.5	534.2	614.6	656.6R	672.8
Fixed assets	7.0	10.3	11.5	12.1R	13.7
Other assets	39.9	49.2	59.2	41.5R	46.0
Non-financial assets	0.8	0.7	2.5	3.3R	4.1
Total assets	**611.1**	**715.0**	**843.9**	**851.6R**	**871.5**
Liabilities & Equity:					
Borrowing from other banks and FIs	132.4	158.7	185.8	182.7R	198.1
Deposits	318.1	383.7	467.1	466.3R	451.9
Other liabilities	60.3	65.9	76.2	90.7R	103.1
Total liabilities	**510.8**	**608.3**	**729.1**	**739.7R**	**753.1**
Shareholders' equity (capital)	**100.3**	**106.8**	**114.8**	**111.9R**	**118.4**
Total liabilities and shareholders' equity	**611.1**	**715.0**	**843.9**	**851.6R**	**871.5**

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

Appendix XXXV: FIs' Aggregate Income Statement

(Amount in Billion BDT)

Items	CY15	CY16	CY17	CY18	CY19
Interest income	57.4	55.1	68.5	79.4R	84.9
Less: Interest expense	(37.4)	(39.2)	(45.8)	(55.7R)	(56.2)
Net interest income (Net II)	**20.0**	**15.9**	**22.8**	**23.7R**	**28.7**
Investment income	2.0	1.8	2.7	1.2R	0.8
Add: Commission, exchange and brokerage	0.3	0.2	0.5	0.7	0.4
Add: Other operating income	5.6	3.9	3.3	4.2R	3.1
Non-interest income (Non II)	**7.9**	**5.9**	**6.5**	**6.1R**	**4.3**
Total operating income(Net II + Non II)	**27.9**	**21.8**	**29.3**	**29.8R**	**33.0**
Operating expenses	(6.6)	(7.5)	(9.7)	(10.1R)	(10.6)
Profit before provisions	**21.3**	**14.3**	**19.7**	**19.7R**	**22.4**
Total provisions	(4.6)	(3.6)	(4.6)	(5.1R)	(5.2)
Profit before taxes	**16.7**	**10.7**	**15.1**	**14.6R**	**17.2**
Tax provisions	(7.0)	(5.6)	(5.6)	(6.3R)	(4.4)
Net profit after taxes	**9.7**	**5.1**	**9.5**	**8.3R**	**12.8**

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

Appendix XXXVI: FIs' Liquidity Position

(Amount in Billion BDT)

Items	End-Dec 2015	End-Dec 2016	End-Dec 2017	End-Dec 2018	End-Dec 2019
Total liabilities	289.6	342.8	394.5	451.1	483.9
Total term deposits	191.3	232.2	260.5	296.9	309.8
Industry CRR (required)	4.8	5.8	6.5	7.4	7.7
Industry CRR (maintained)	5.2	6.2	7.1	7.1	7.5
Industry SLR (required)	14.5	15.5	18.0	20.5	21.7
Industry SLR (maintained)	68.0	64.9	81.5	94.9	90.9

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

Appendix XXXVII: FIs' Other Information

(Amount in Billion BDT)

Items	CY15	CY16	CY17	CY18	CY19
Tier-I Capital	94.6	91.3	87.3	92.6	113.3
Tier-II Capital	6.7	9.7	11.0	13.2	13.3
Total Capital	**101.3**	**101.0**	**98.3**	**105.8**	**126.6**
Classified loans & leases	40.0	39.2	45.2	54.6	64.0
Loan loss provisions (required)	19.8	25.2	24.6	33.3	32.8
Loan loss provisions (maintained)	14.2	19.8	19.7	27.5	23.4
Loan loss provision (surplus/shortfall)	**(5.6)**	**(5.4)**	**(4.9)**	**(5.8)**	**(9.4)**
Number of Government-owned FIs	3	3	3	3	3
Number of local FIs	19	19	19	19	18
Number of FIs under foreign joint venture	10	11	12	12	12
Total number of FIs	**32**	**33**	**34**	**34**	**33**
Number of branches	210	224	254	269	276

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

Appendix XXXVIII: FIs' Summary Performance Indicators

(In percentage)

Indicators	CY15	CY16	CY17	CY18	CY19
Profitability & Efficiency:					
Return on Assets (ROA)	1.6	0.7	1.1	1.0[R]	1.5
Return on Equity (ROE)	9.8	4.7	8.3	7.4	10.8
Net Interest Margin (NIM)	4.4	2.4	2.9	3.2[R]	3.7
Asset Quality:					
Classified Loans and Leases to Total Loans and Leases	8.9	7.3	7.3	7.9	9.5
Capital Adequacy:					
Capital Adequacy Ratio (CAR)	18.7	16.6	13.5	13.9	17.5
Liquidity:					
SLR maintained	23.5	19.0	20.7	21.1	18.8
CRR maintained	2.7	2.7	2.7	2.4	2.5

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

R= Revised

Appendix XXXIX: FIs' Sector-wise Distribution of Loans and Leases

(Shares in percentage)

Sectors	CY15	CY16	CY17	CY18	CY19
Trade and Commerce	17.3	17.1	13.5	15.3	13.9
Housing	17.7	16.8	15.0	19.2	19.3
Power, Gas, Water and Sanitary Service	9.8	9.5	7.9	8.8	9.7
Textile	4.7	4.9	4.0	4.9	4.5
Iron, Steel and Engineering	5.2	5.4	5.2	5.1	5.0
Transport & Aviation	3.9	4.2	8.9	4.0	4.3
Food Production and Processing Industry	4.2	4.8	3.6	4.3	4.0
Garments and Knitwear	4.1	4.5	4.8	4.7	5.2
Margin Loan	3.3	2.4	1.7	2.0	2.3
Merchant Banking	3.7	4.4	3.3	3.7	3.4
Agriculture	1.8	2.0	2.6	3.1	2.3
Others (including other sectors with minor share)	24.3	24.0	29.5	24.9	26.1

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

Appendix XL: Interbank Repo Volume, Interbank Repo Rate and Call Money Rate

Month	Interbank Repo Volume (in billion BDT)	Interbank Repo Rate (%)	Call Money Rate (%)
January 2019	337.9	3.61	4.12
February 2019	202.6	4.76	4.36
March 2019	230.3	5.59	4.54
April 2019	346.4	6.66	4.57
May 2019	500.6	5.30	4.54
June 2019	327.3	5.22	4.55
July 2019	193.7	2.79	3.46
August 2019	364.4	5.71	4.69
September 2019	652.6	5.78	5.04
October 2019	448.3	4.09	4.64
November 2019	302.6	3.23	4.12
December 2019	442.5	4.28	4.50

Source: *Bangladesh Bank Website, Economic Data.*

Appendix XLI: Yields on Treasury Securities

Securities	December 2018	June 2019	December 2019
91 Day T-Bill	2.18%	6.78%	7.01%
182 Day T-Bill	2.96%	6.91%	7.61%
364 Day T-Bill	3.40%	7.06%	8.04%
2 Years T-Bond	4.33%	7.41%	8.16%
5 Years T-Bond	5.35%	8.05%	8.93%
10 Years T-Bond	7.53%	8.42%	9.20%
15 Years T-Bond	7.69%	8.77%	9.30%
20 Years T-Bond	8.42%	9.08%	9.40%

Source: *Major Economic Indicators, February 2020 Issue, Bangladesh Bank.*

Appendix XLII: Equity Market Development			
Quarter-end	DSEX Index	Market Capitalization(in billion BDT)	Market P/E ratio
March 2019	5491.9	4119.7	16.1
June 2019	5421.6	3998.2	14.3
September 2019	4947.6	3738.5	13.4
December 2019	4452.9	3395.5	11.8

Source: *Dhaka Stock Exchange website.*

Appendix XLIII: Automated Cheque Clearing Operations						
Category	CY17		CY18		CY19	
	Number (in thousands)	Amount in billion BDT	Number (in thousands)	Amount in billion BDT	Number (in thousands)	Amount in billion BDT
High Value (HV)	2,222.5	12,969.2	2,414.63	14,732.77	2,039.77	14,480.46
Regular Value (RV)	20,950.7	7,462.5	20,849.23	8,214.20	20,362	8,519.94

Source: *Payment Systems Department, Bangladesh Bank.*

Appendix XLIV: Volume of Electronic Banking Transactions				
				(in billion BDT)
Year	Using ATM	Using Debit Card	Using Credit Card	Internet Banking
2017	1194.7	1239.5	199.8	364.8
2018	1,385.3	1,420.8	164.6	324.7
2019	1,629.9	1671.2	189.3	658.8

Source: *Statistics Department, Bangladesh Bank.*

Appendix XLV: Comparative Scenario of Mobile Financial Services (MFS) in last 3 years			
Particulars	2017	2018	2019
Number of agents	777,179	886,473	965,471
No. of Banks authorized for MFS	18	18	16
No. of Banks in operation for MFS	18	18	16
Number of registered clients (in millions)	58.6	67.5	78.6
Number of active accounts (in millions)	23.1	37.3	35.1
Number of total transactions (in millions)	1,876	2,273	2,589.5
Volume of total transaction (in billion BDT)	3,147	3,789	4,344.9

Source: *Payment Systems Department, Bangladesh Bank.*

Appendix XLVI: Banking Sector Month-wise Deposit & Advance Rate (CY19)

(in percentage)

Month	Deposit Rate	Advance Rate	Overall Spread
January	5.30	9.49	4.19
February	5.34	9.49	4.15
March	5.35	9.50	4.15
April	5.42	9.46	4.04
May	5.46	9.51	4.05
June	5.43	9.58	4.15
July	5.56	9.59	4.03
August	5.60	9.60	4.00
September	5.65	9.56	3.91
October	5.66	9.58	3.92
November	5.71	9.63	3.92
December	5.70	9.68	3.98

Source: *Bangladesh Bank Website.*

Appendix XLVII: External Credit Assessment Institutions (ECAIs)

Sl. No.	Rating Companies	Subsidiary/Technical Partner of	Date of Issuance of Registration Certificate
1.	Credit Rating Information and Services Ltd (CRISL)	Rating Agency MalaysiaBerhad	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 XLVIII: Microcredit Finance Sector						
Sl No.	**Particulars**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
1	Total Number of Licensed Institution	753	759	700R	706[R]	724
2	Number of Branches	15,609	16,282	17,120	18,088	18,977
3	Number of Employees	110,781	124,992	137,607	152,506	162,175
4	Number of Members (in millions)	26.0	27.8	29.9	31.1	32.4
5	Number of borrowers (in millions)	20.8	23.1	24.8	25.7	25.8
6	Outstanding Loan Disbursed by Licensed institutions (in billions)	353.8	458.2	581.6	671.2	787.6
7	Outstanding Loan Disbursed by top 20 Institutions (in billions)	278.0	348.0	478.0	528.3	564.7
8	Outstanding Savings Balance of the Licensed institutions (in billions)	136.0	172.0	216.1	263.0R	306.2
9	Outstanding Savings Balance Held in Top 20 Institutions (in billions)	107.0	136.0	171.4	206.8	239.0
10	Particulars of Outstanding Loan (in millions)					
	Up to BDT.10,000	38,317.5	32,213.9	33,688.5	33,264.8	33,734.6
	BDT.10,001 to 30,000	138,605.0	166,294.3	169,997.8	169,150.6[R]	169,573.8
	BDT. 30,001 to 50,000	61,505.1	97,682.6	133,677.0	153,696.5 [R]	173,169.7
	BDT. 50,001 to 100,000	50,514.6	80,186.7	117,640.8	150,844.2 [R]	170,665.1
	BDT. 100,001 to 300,000	50,389.1	60,553.1	94,791.5	114,634.4 [R]	160,940.0
	Above BDT. 300,000	14,465.5	21,247.1	31,805.2	49,567.6	79,497.1
11	Total Number of Loan Recipients (in thousands)					
	Up to BDT.10,000	6,114.1	5,128.7	4,825.8	4,337.6	3,514.64
	BD.10,001 to. 30,000	10,727.8	12,212.5	11,896.1	11,530.4[R]	11,350.0
	BDT. 30,001 to 50,000	2,383.0	3,451.3	4,714.0	5,507.5[R]	5,971.5
	BDT. 50,001 to 100,000	1,043.5	1,615.5	2,397.7	3,114.1[R]	3,460.5
	BDT. 100,001 to 300,000	468.9	594.9	841.2	1,025.9[R]	1,220.4
	above BDT. 300,000	63.1	83.4	122.2	169.2	241.0
12	Average Loan Per Recipient	17,009	19,846	23,486	26,130	30,563
13	Default Loan (outstanding amount in millions)	10,755.0	11,771.0	13,556.27	18,281.1	23,612.8

Note: R = Revised.

Source: *Microcredit Regulatory Authority.*

Appendix XLIX: Financial Stability MAP						
Components	**Major Indicators**	**Standardized Scores (0 to 1 Scale)**		**Change with respect to 2018**	**Latest Value of the indicator**	**Comment**
		2018[93]	**2019**			
External Economy	Trading partners' real GDP growth (export weighted)	0.127	0.197	↑	1.52 percent	Reverse ratio[94]. Score = 1- standardized score
	Import Weighted average Inflation (In countries from which Bangladesh makes highest import)	0.330	0.453	↑	3.78 percent	
	Weighted average unemployment rate (Source countries with highest inward remittance for Bangladesh)	0.609	0.659	↑	3.84 percent	
	International Oil Price	0.557	0.474	↓	$55.7/barrel. Oil price severely declined in early 2020.	
	3-months LIBOR rate	0.813	0.821	↑	1.91 percent	
	Current account deficit to GDP	0.628	0.193	↓	0.288 percent in Q4/2019	
	Reserve Adequacy (Import coverage in months)	0.337	0.403	↑	6.5 months	Reverse ratio.
	Overall component Score	0.471	0.406	↓		
Domestic Economy	Output gap	0.30	0.40	↑	1.91 percent	
	External debt to GDP	0.203	0.197	↓	20.1 percent	
	Exchange rate fluctuations (REER)	0.083	0.187	↑	109.89	REER value
	Inflation	0.247	0.237	↓	5.52 percent	Point to Point for end FY19
	Overall component Score	0.208	0.255	↑		
Households	Household borrowing to GDP	0.126	0.126	→	7.59 percent	
	Household Credit quality (H.H NPL to H.H Loans)	0.114	0.105	↓	4.2 percent	
	Inward Remittance to GDP	0.591	0.582	↓	12.5 percent at end-FY19. Reverse ratio.	
	Overall component Score	0.280	0.274	↓		
Non-Financial Corporation	NFC credit to GDP	0.482	0.516	↑	68.6 percent using FY19 GDP	
	NFC loans to Banking Sector Loans	0.756	0.701	↓	17.5 percent	
	D/E ratio of large NFCs	0.850	0.924	↑	208 percent	
	Credit portfolio quality	0.396	0.287	↓	7.18 percent	
	Overall component Score	0.621	0.607	↓		

93 Some indicators for 2018 have been re-estimated. In some cases, threshold values used for standardizing the indicators have also been modified from the previous publication (FSR-2018).

94 Reverse ratio is used when higher value of an indicator is desirable for financial stability. The reverse ratio ensures that higher values of such indicators are placed closer to the origin of the stability map. Final standardized scores are stated in the appendix after converting the original scores using the reverse ratio.

Components	Major Indicators	Standardized Scores (0 to 1 Scale)		Change with respect to 2018	Latest Value of the indicator[95]	Comment
		2018	2019			
Fiscal Condition	Public debt to GDP	0.389	0.397	↑	34.61 percent	
	Sovereign Risk Premium	0.350	0.560	↑	3.83 percent	
	Govt. budget balance to GDP	0.253	0.263	↑	4.83 percent	
	Tax revenue to GDP	0.677	0.724	↑	9.92 percent	Reverse ratio
	Overall component Score	0.417	0.486	↑		
Financial Market	Asset Concentration of top 3 D-SIBs to Industry Assets	0.277	0.217	↓	21.6 percent	
	Gross NPL of Banking Sector	0.713	0.765	↑	9.30 percent	
	RWA density ratio	0.671	0.654	↓	64.3 percent	
	Banking Sector resilience map	0.293	0.288	↓	0.586 out of 2	
	Deposit covered by DITF	0.770	0.769	↓	23.13 percent	Reverse ratio
	NPL FIs	0.542	0.667	↑	10.4 percent	Weights for FI and capital market indicators are finalized using their proportional size in the financial system (Bank + FI + Capital Market)
	Price Earnings Ratio	0.619	0.676	↑	11.80 times. Reverse ratio up to a certain level	
	DSEX	0.416	0.462	↑	4453 points	Reverse ratio
	Overall component Score	0.587	0.613	↑		
Capital & Profitability	CRAR	0.657	0.373	↓	11.6 percent	Reverse ratio
	TIER 1	0.669	0.330	↓	7.69 percent	Reverse ratio
	NIM	0.599	0.608	↑	2.14 percent	Reverse ratio
	ROA	0.838	0.726	↓	0.5 percent	Reverse ratio
	Overall component Score	0.691	0.509	↓		
Funding & Liquidity	ADR	0.676	0.696	↑	77.3 percent	
	LCR	0.381	0.211	↓	200.5 percent	Reverse ratio
	NSFR	0.290	0.114	↓	111.24 percent	Reverse ratio
	Overall component Score	0.451	0.343	↓		

95 The cut-off date for latest value of any indicator is 31st December, 2019. Updated values after that date, have been used in explaining future outlook of the stability map but not in constructing the map. For some indicators, where end-December, 2019 data are not available at the time of index preparation, data from earlier period have been used.

Appendix L: 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.	DOS
Asset quality	Gross NPL ratio	BS2	Indicates problems with asset quality in the loan portfolio and the degree of credit risk.	BRPD)
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	DOS
	Return on equity (ROE)	BS6	Measures banks' efficiency in using its capital	
	Net interest margin (NIM)	BS7	Higher ratio implies higher ability to absorb losses; also indicates banks with high capital requiring lesser deposits to finance lending.	
Financial Vulnerability Index (FVI)				
External Sector	Current account balance to GDP ratio	FV1	Indicates vulnerability on the external sector of the economy if the deficit widens. A large current account deficit means an equivalent capital account surplus. The funds flowing in may be contributing to the economy overheating and asset price booms by financing speculative asset purchases. It also precipitates probability of 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
	Real effective exchange rate (REER)	FV3	Indicates export competitiveness of an economy.	Monetary Policy Department (MPD)
Financial Sector	M2 multiplier (broad money, M2/Reserve money, RM)	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.	MET
	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
	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.	MET

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.	Bangladesh Bank Quarterly (BBQ)
	CPI inflation	FV8	Indicates overheating of the economy from a mismatch between aggregate demand and supply situation of an economy.	MET
	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.	World Bank
Regional Economic Climate Index (RECI)				
Exports	Weighted average GDP growth of major export partners (USA, UK, Canada, Germany, Italy, France, Spain)	RE1	A high GDP growth rate in the major export partners implies better export prospects for Bangladesh.	OECD, Singapore Department of Statistics & Bank Negara Malaysia
Imports	Weighted average CPI inflation of major import partners (China, India, Japan, Korea, Malaysia, Singapore)	RE2	Higher inflation in major import countries would be likely to translate into higher import payments for Bangladesh as well as higher domestic inflation.	

Appendix LI: Theoretical Aspects of Macroprudential Policy

i. Objectives of macroprudential policy

Objectives of macroprudential policy can be set at three levels - overall, intermediate, and operational. The overall objective of macroprudential policy is financial stability, i.e., to build up the resilience of financial institutions, markets and infrastructures. Basic intermediate objectives are preventing excessive credit growth, managing liquidity risks, limiting excessive concentration, and strengthening the resilience of financial infrastructures. On the other hand, operational objectives are set to facilitate the calibration and assessment of macroprudential policy actions. The common operational objective is compliance with the instrument setting.

ii. Scope of macroprudential policy

Macroprudential policy generally applies to the banking system because banks are major providers of credit to the economy. However, as capital market activities and market-based financing increase, macroprudential policymakers need to be able to monitor systemic risks from activities outside the banking system and to build up and implement policy responses to contain those risks.

iii. Necessity of macroprudential policy

The need for macroprudential policies evolves from two dimensions of systemic risk: the time and cross-sectional dimensions. In the time dimension, the build-up of risk over time interacts with the macroeconomic cycle. On the other hand, in the cross-sectional dimension, the structure of the financial system influences how it responds to, and possibly amplifies shocks. Such spillover effects can emanate, for instance, from common exposures across institutions or from network interconnections (Caruana 2010)[96].

iv. Macroprudential policy versus microprudential policy

Macroprudential policy is treated as a complement to microprudential policy. Still, both the policies differ in various aspects though financial stability tends to be a common responsibility. The following table represents some key differences between the stated policies.

Table A Comparison between macroprudential and micro prudential policies

	Macroprudential	Microprudential
Proximatr objective	limit financial system-wide distress	limit distress of individual institutions
Ultimate objective	avoid output (GDP) cost	consumer (investor/depositor) protection
Model of risk	(in part) endogenous	Exogenous
Correlations and common exposures across institutions	important	Irrelevant
Calibration of prudential controls	in terms of system-wide distress; top-down	in terms of risk of individual institutions; bottom-up

Source: *Borio (2003)*[97]

96 Caruana, J. (2010, February 12). Systemic risk: how to deal with it? Retrieved 3 31, 2020, from https://www.bis.org/publ/othp08.htm

97 Borio, C. (2003). Towards a macroprudential framework for financial supervision and regulation? BIS Working Papers, No 128, February.

v. *Basic macroprudential tools/instruments*

Basic macroprudential instruments, used widely, are stated in the following table:

Table B Basic Macroprudential Instruments

SL	Instruments	Conceptual Basis
1	Caps on the loan-to-value ratio (LTV)	The LTV imposes a down payment restriction on households' capacity to borrow. In theory, the constraint limits the procyclicality of collateralized lending because housing prices and households' capacity to borrow based on the collateralized value of the house interact in a procyclical manner. Set at an appropriate level, the ratio addresses systemic risk and the adjustment of the LTV makes it a more potent counter-cyclical policy instrument.
2	Caps on the debt-to-income ratio (DTI)	The DTI represents prudential regulation aimed at ensuring banks' asset quality when used alone. When used in conjunction with the LTV, it can help further dampen the cyclicality of collateralized lending by adding another constraint on households' capacity to borrow. Adjustments in the DTI can be made in a counter-cyclical manner to address the time dimension of systemic risk.
3	Caps on foreign currency lending	Loans in foreign currency expose the un-hedged borrower to foreign exchange risks which, in turn, subject the lender to credit risks. Caps (or higher risk weights, deposit requirements, etc.) on foreign currency lending may be used to address this foreign-exchange-induced systemic risk.
4	Ceilings on credit/ Credit growth	A ceiling may be imposed on either total bank lending or credit to a specific sector. The ceiling on aggregate credit or credit growth may be used to dampen the credit/asset price cycle-the time dimension of systemic risk. A ceiling on credit to a specific sector, such as real estate, may be used to contain a specific type of asset price inflation or limit common exposure to a specific risk-the cross-sectional dimension of systemic risk.
5	Limits on net open currency positions/currency mismatch	Such prudential regulation tools limit banks' common exposure to foreign currency risks. In addition, the limits may be used to address an externality-sharp exchange rate fluctuations caused by a convergence of purchases/sales of foreign exchange by banks. This externality increases the credit risk of un-hedged borrowers with heavy foreign currency debt.
6	Limits on maturity Mismatch	These prudential regulation tools may be used to address systemic risk since the choice of asset/liability maturity creates an externality-fire sales of assets. In a crisis, the inability of a financial institution to meet its short-term obligations due to maturity mismatches may force it to liquidate assets, thus imposing a fire sale cost on the rest of the financial system. The funding shortages of a few institutions could also result in a systemic liquidity crisis due to the contagion effect.
7	Reserve requirements	This monetary policy tool may be used to address systemic risk in two senses: (i) the reserve requirement has a direct impact on credit growth, so it may be used to dampen the credit/asset price cycle—the time dimension of systemic risk; (ii) the required reserves provide a liquidity cushion that may be used to alleviate a systemic liquidity crunch when the situation warrants.
8	Countercyclical capital requirements	The requirement can take the form of a ratio or risk weights raised during an upturn as a restraint on credit expansion and reduced during a downturn to provide a cushion so that banks do not reduce assets to meet the capital requirement. A permanent capital buffer, which is built up during an upturn and deleted during a downturn, serves the same purpose. Both can address the cyclicality in risk weights under Basel II based on external ratings that are procyclical.
9	Time-varying/ Dynamic provisioning	Traditional dynamic provisioning is calibrated on historical bank-specific losses, but it can also be used to dampen the cyclicality in the financial system. The provisioning requirement can be raised during an upturn to build a buffer and limit credit expansion and lowered during a downturn to support bank lending. It may be adjusted either according to a fixed formula or at the discretion of the policymaker to affect banks' lending behavior in a counter-cyclical manner.
10	Restrictions on profit distribution	These prudential regulation requirements are intended to ensure the capital adequacy of banks. Since undistributed profits are added to bank capital, the restrictions tend to have a counter-cyclical effect on bank lending if used in a downturn. The capital conservation buffer of Basel III has a similar role.

Source: *Lim, et al. (2011)*[98].

98 Lim, C., Columba, F., Costa, A., Kongsamut, P., Otani, A., Saiyi, M., . . . Wu, X. (2011, October). Macroprudential Policy: What Instruments and How to Use Them? Lessons from Country Experiences. IMF Working Paper, No. WP/11/238. Retrieved 04 01, 2020, from https://www.imf.org/external/pubs/ft/wp/2011/wp11238.pdf

Financial Stability Report

2019 | Issue 10

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 Associates Printing Press, 164, D.I.T. Ext. Road, Fakirapool, Dhaka-1000.

DCP : 09-2020-500