BANGLADESH BANK
Central Bank of Bangladesh

Macroprudential Supervision of Financial System

Bangladesh Systemic Risk Dashboard (BSRD)

Financial Stability Department
June 2020

Bangladesh Systemic Risk Dashboard (BSRD)

June 2020

- *This dashboard is based on data and information available as of June 2020, unless stated otherwise.*
- *This dashboard can be accessed through internet at https://www.bb.org.bd/pub/index.php.*

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List of acronyms

ADR	Advance-to-Deposit Ratio
BB	Bangladesh Bank
BRPD	Banking Regulation and Policy Department
CY	Calendar Year
DFIM	Department of Financial Institutions and Markets
DMD	Debt Management Department
DOS	Department of Off-site Supervision
DSE	Dhaka Stock Exchange
DSEX	DSE Broad Index
FCBs	Foreign Commercial Banks
FIs	Financial Institutions
FSD	Financial Stability Department
FY	Fiscal Year
GDP	Gross Domestic Product
GoB	Government of Bangladesh
IMF	International Monetary Fund
NBDC	Non-bank Depository Corporation
NFCs	Non-financial Corporations
NII	Net Interest Income
NPL	Non-performing Loan
PCBs	Private Commercial Banks
P/E ratio	Price/Earnings Ratio
ROA	Return on Assets
ROE	Return on Equity
RWA	Risk-weighted Assets
SCBs	State-owned Commercial Banks
SBs	Specialized Banks
T-bill	Treasury Bill
T-bond	Treasury Bond
TOI	Total Operating Income
Y-O-Y	Year-on-year

Bangladesh Systemic Risk Dashboard: An Overview

1. Macro risk

Real GDP growth rate was recorded at 5.2 percent (indicator 1.1) in the fiscal year 2019-20 (FY20), which was 8.1 percent in FY19. Current account balance-to-GDP ratio (indicator 1.2) declined further during the first half of 2020 compared to that of the preceding period.

Aggregate debt-to-GDP ratio (indicator 1.3) increased in FY20 compared to that of FY19. During the same period, government debt-to-GDP ratio (indicator 1.4) increased. However, the estimated government deficit-to-GDP ratio (indicator 1.5) for FY20 remained almost unchanged from the position of the previous fiscal year.

Financial burden of households, measured by household debt-to-gross disposable national income ratio (indicator 1.6), decreased during the first half of 2020 compared to the position of the preceding period. Non-financial corporation (NFC) debt-to-GDP ratio (indicator 1.7) also decreased in the review period.

2. Credit risk

Credit growth to households by both banks (indicator 2.1) and non-bank depository corporations (NBDCs) (indicator 2.2) decreased at end-June 2020 compared to those of end-December 2019. Credit growth to NFCs by banks (indicator 2.3) increased marginally while the same by NBDCs (indicator 2.4) decreased further and turned negative at the end of June 2020 compared to the positions of the preceding period.

At the end of June 2020, provision maintenance ratio (indicator 2.5) of banks recorded a sharp increase while provision maintenance ratio of financial institutions (FIs)[1] (indicator 2.6) registered a decrease compared to those of end-December 2019.

In terms of changes in banks' interest rates for housing loans (indicator 2.7), a net easing was observed at the end of June 2020, indicating a higher number of banks decreased their interest rates in housing sector compared to the number of banks which increased their rates.

3. Funding and liquidity risk

During the review period, liquidity support provided to banks by Bangladesh Bank in the form of repo, assured liquidity support (ALS) and special repo increased sharply compared to those of the preceding period (indicator 3.1). Led mainly by a decreased advance-to-deposit ratio (ADR) of state-owned commercial banks (PCBs) and foreign commercial banks (FCBs), ADR of the banking industry (indicator 3.2) decreased at end- June 2020 compared to end-December 2019 position.

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[1] In few cases due to NBDCs' data unavailability, data of FIs, which constitute the majority of NBDCs, were used.

Maturity profile of government's outstanding debt securities (indicator 3.3) demonstrates that investment in treasury bonds (T-bonds) with all types of residual maturity except for bond with maturity of more than 15 years increased at end-June 2020 compared to those of end-December 2019. Investment in treasury bills (T-bills) with maturity of up to 91 days increased while investments in T-bills with maturity over 91 days decreased. Subordinated debt (indicator 3.4), as a source of funding for banks, experienced a slowdown at the end of the review period.

4. Market risk

Major equity indices (indicator 4.1) continued the decreasing trend at end-June 2020 compared to end-December 2019. Market price/earnings (P/E) ratio (indicator 4.2) also maintained a downward trend during the review period.

Average call money market rate (indicator 4.3) increased slightly at the end of June 2020. Compared to the position of end-December 2019, banks' weighted average interest rates on both deposits and advances as well as their spread (indicator 4.4) decreased at end-June 2020. Besides, weighted average exchange rate of BDT against USD (indicator 4.5) remained almost unchanged at the end of the review period.

5. Profitability and solvency risk

Both of banks' return on equity (ROE) and return on asset (ROA) (indicators 5.1a and 5.1b) increased during the January-June 2020 period compared to those of the corresponding period of 2019, though those figures decreased compared to the second half of 2019. During the same period, cost-to-income ratio (indicator 5.1c) increased while net interest income to total operating income ratio (indicator 5.1d) decreased. At end-June 2020, banks' Tier-1 capital to risk-weighted assets ratio (indicator 5.2a) increased compared to that of end-December 2019 and remained well above the regulatory requirement of 6.0 percent. Banks' gross non-performing loan (NPL) ratio (indicator 5.2b) decreased further at the end of the review period.

FIs' ROE and ROA (indicators 5.3a and 5.3b) showed a notable decrease during the review period compared to those of the preceding period. FIs' cost-to-income ratio (indicator 5.3c) increased while net interest income to total operating income ratio (indicator 5.3d) decreased during the same period. Their Tier-1 (core) capital to risk-weighted assets ratio (indicator 5.4a) recorded a slight decrease; however, it remained well above the minimum regulatory requirement. Their gross NPL ratio (indicator 5.4b) increased at the end of June 2020.

6. Inter-linkages

Banks' credit growth to the government (indicator 6.1) decreased slightly at end-June 2020 compared to that of end-December 2019. Government borrowing from NBDCs (indicator 6.2), though was very low, increased sharply at the end of the review period.

Banks' loan growth to residential housing sector (indicator 6.3a) increased while the same to commercial housing sector (indicator 6.3b) remained negative at end-June 2020. Growth of FIs' loans to housing sector (indicator 6.4) also recorded a decrease and turned negative at end-June 2020.

An increasing trend was observed in banks' credit exposure to its major public and private counterparts (indicator 6.5), in which NFCs accounted for the major share. NBDCs' credit exposure to its major counterparts marked a slowdown due largely to decline in their loans to NFCs (indicator 6.6). Banks' cross-border claims (indicator 6.7) recorded a decline and remained less than one percent of banks' total assets at end-June 2020. NBDCs' had no cross-border claims (indicator 6.8) at the end of the review period.

7. Structural Risk

Aggregate assets of domestic banks as a percentage of nominal GDP, (indicator 7.1a) decreased at end-June 2020 compared to that of both end-June 2019 and end-December 2019 while the same of foreign commercial banks (indicator 7.1b) increased slightly. FIs' aggregate assets to nominal GDP ratio (indicator 7.3) continued the declining trend. Leverage ratio of banks (indicators 7.2) recorded a moderate increase while leverage ratio of FIs (indicators 7.4) increased sharply at the end of the review period.

1. Macro risk

## 1.1 Current and forecasted real GDP growth
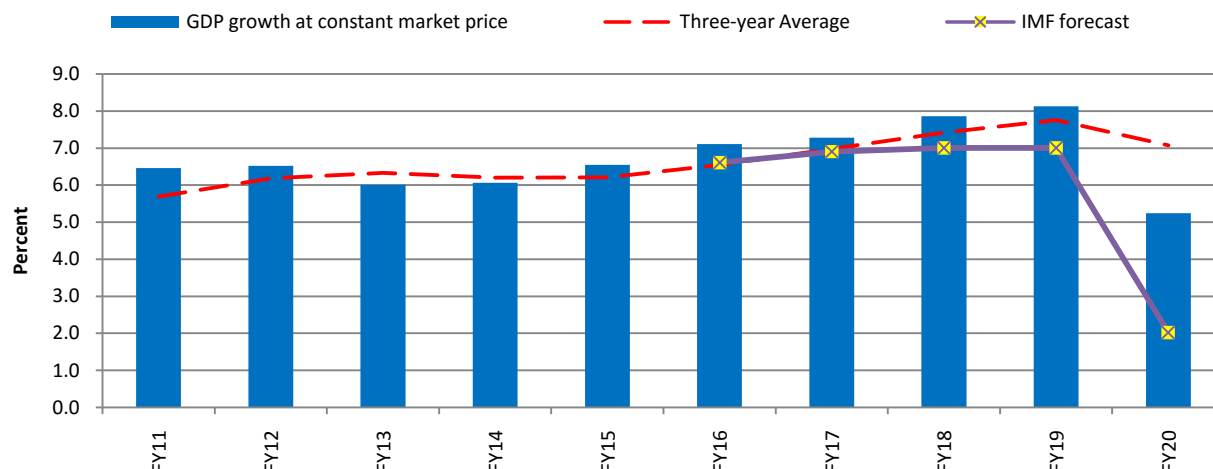
Source: Monthly Economic Trends, BB; IMF's World Economic Outlook Database, April, 2020 and various previous issues.
Notes: As half yearly GDP is not calculated in Bangladesh, GDP growth is shown for only fiscal years.

Real GDP growth experienced a slowdown in FY 2020 due to COVID-19 pandemic related slowdown in economic activities; however, the growth surpassed the IMF forecast for 2020.

1.2 Current account balance-to-GDP ratio
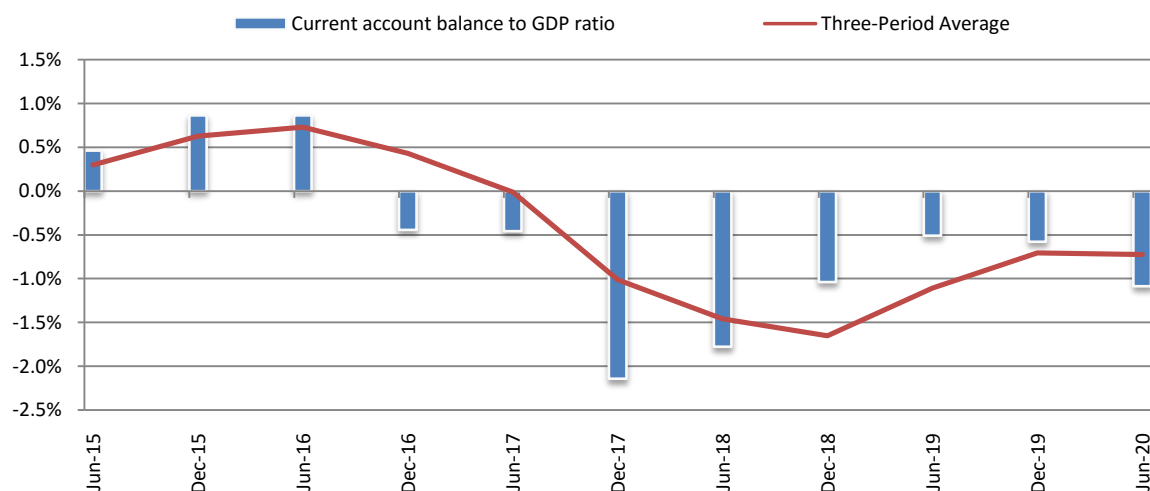
Source: Monthly Economic Trends, BB.
Note: As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating December based current account balance-to-GDP ratio.

Current account balance-to-GDP ratio showed further decline during the first half of 2020 compared to the preceding period.

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1. Macro risk–Cont'd.

1.3 Aggregate debt-to-GDP ratio
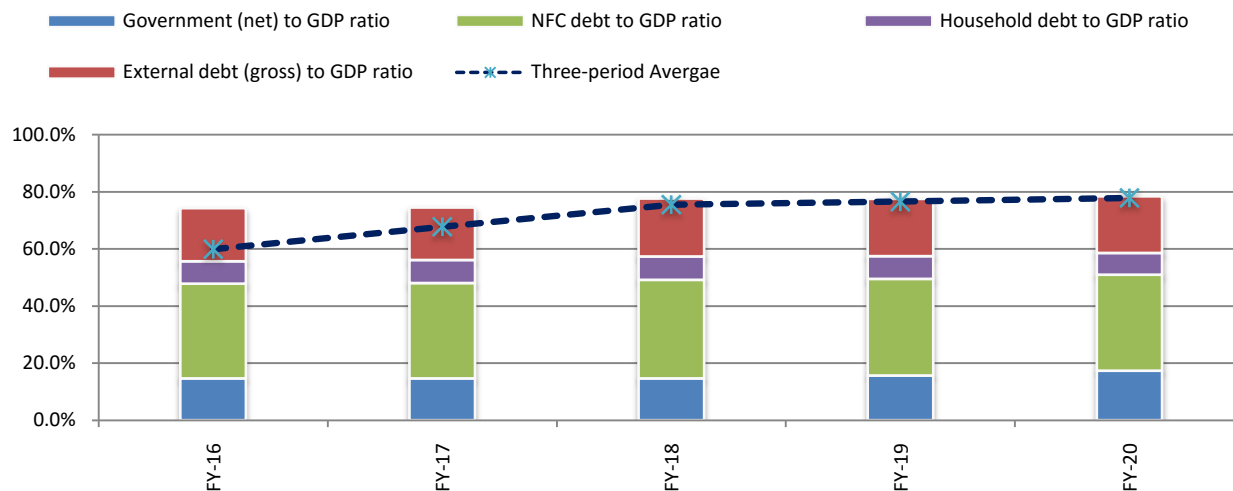
Sources: Monthly Economic Trends, BB and National Summary Data Page (NSDP), BB.
Notes: 1) Because of unavailability of half yearly data of GDP, aggregate debt-to-GDP ratio is shown only for fiscal years. 2) Aggregate debt includes both domestic and external debt position. 3) Domestic debt refers to the claims on government (net), households, and non-financial corporation(NFC) by depository corporations. 4) Data has been revised from FY16 to FY19.

Aggregate debt-to-GDP ratio recorded an increase in FY20 compared to that of FY19. Debts of non-financial corporation remained the major constituent of aggregate debt.
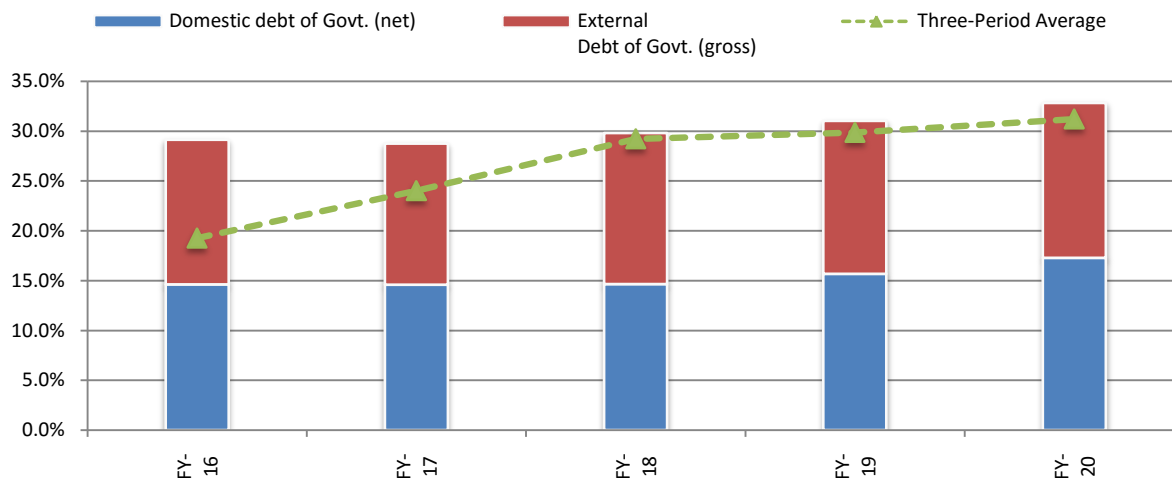
1.4 Government debt-to-GDP ratio

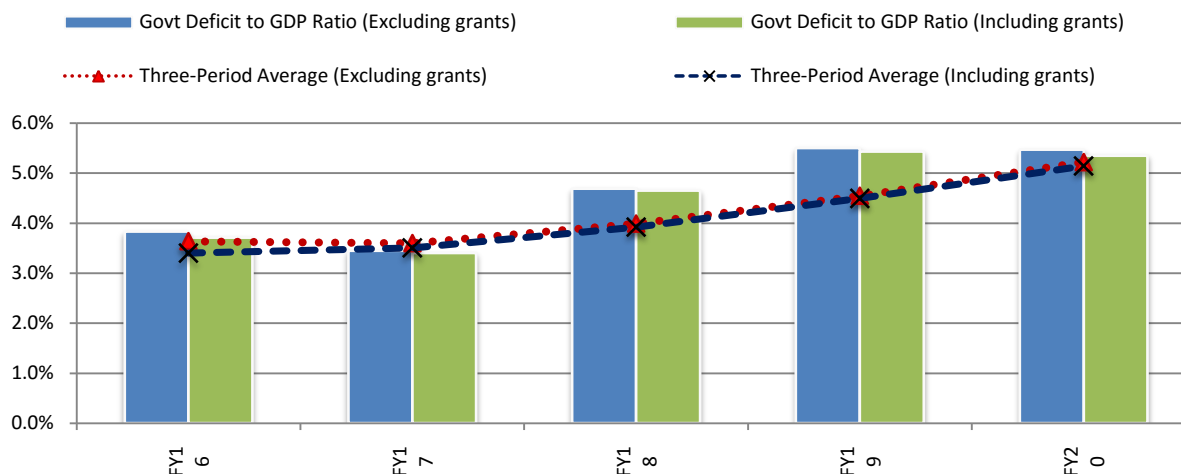Source: Monthly Economic Trends, BB and National Summary Data Page (NSDP), BB.
Notes: 1) Because of unavailability of half yearly data of GDP, government debt-to-GDP ratio is shown only for fiscal years. 2) Data has been revised from FY16 to FY19.

Government debt-to-GDP ratio increased in FY20 compared to that of FY19 due to marked increase in government's domestic borrowing from the banking system.

1. Macro risk–Cont'd.

1.5 Government deficit-to-GDP ratio

Legend:
- ▬ Govt Deficit to GDP Ratio (Excluding grants)
- ▬ Govt Deficit to GDP Ratio (Including grants)
- ······▲······ Three-Period Average (Excluding grants)
- – –✕– – Three-Period Average (Including grants)

Chart: Government deficit-to-GDP ratio by fiscal year (FY16, FY17, FY18, FY19, FY20), vertical axis 0.0% to 6.0%.

Source: Monthly Report on Fiscal Position, Finance Division, Ministry of Finance.
Notes: 1) Because of unavailability of half yearly data of GDP, government deficit-to-GDP ratio is shown for fiscal years only. 2) FY20 data is based on revised budget.

Government deficit-to-GDP ratio, both including and excluding grants, remained almost unchanged in FY20 compared to the preceding fiscal year.

1.6 Household debt-to-gross disposable national income ratio

Legend:
- ▬ Household Debt to Gross Disposable National Income
- – – – Three-Period Average

Chart: Household Debt to Gross Disposable National Income ratio from Jun-16 to Jun-20, vertical axis 6.4% to 8.8%.
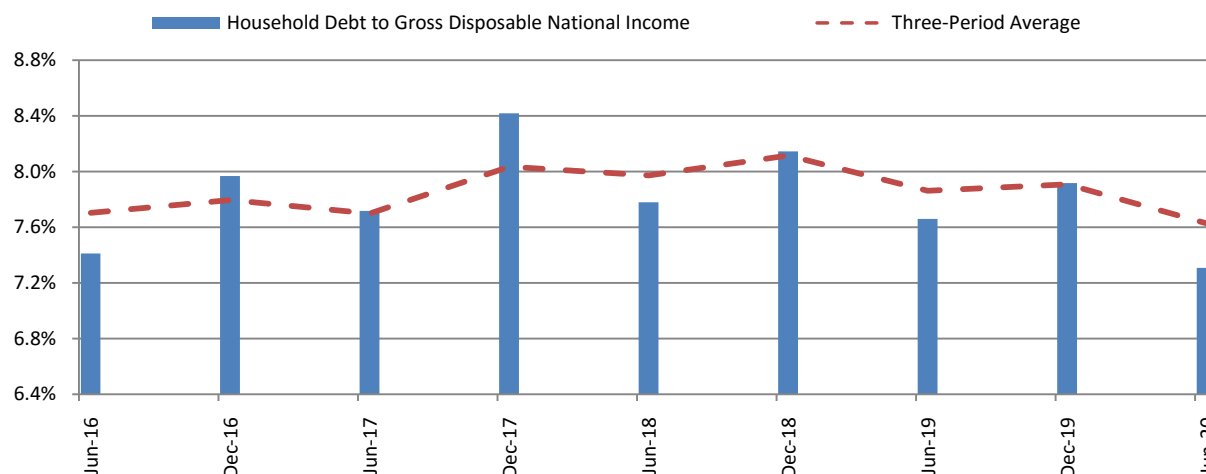
Sources: Monthly Economic Trends, BB.
Notes: 1) As half yearly gross disposable national income is not calculated in Bangladesh, June based data of gross disposable national income is used for both June and December in calculating household debt-to-gross disposable national income ratio.

Household debt-to-gross disposable national income decreased in June 2020 compared to that of both December 2019 and June 2019.

1. Macro risk–Cont'd.

1.7 Non-financial Corporation (NFC) debt-to-GDP ratio
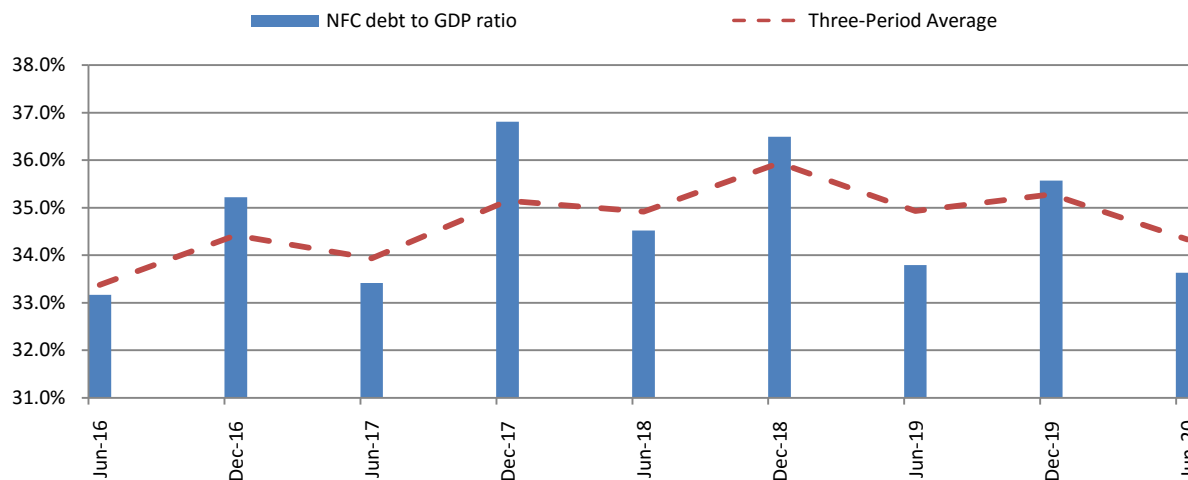
Sources: Monthly Economic Trends, BB.

Notes: 1) NFC debt includes debts of both public and private NFCs. 2) As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating the ratio.

NFCs' debt-to-GDP ratio decreased at end-June 2020 compared to both end-December 2019 and end-June 2019 positions. Private NFCs' debt comprises major portion of aggregate NFCs' debt.

2. Credit risk

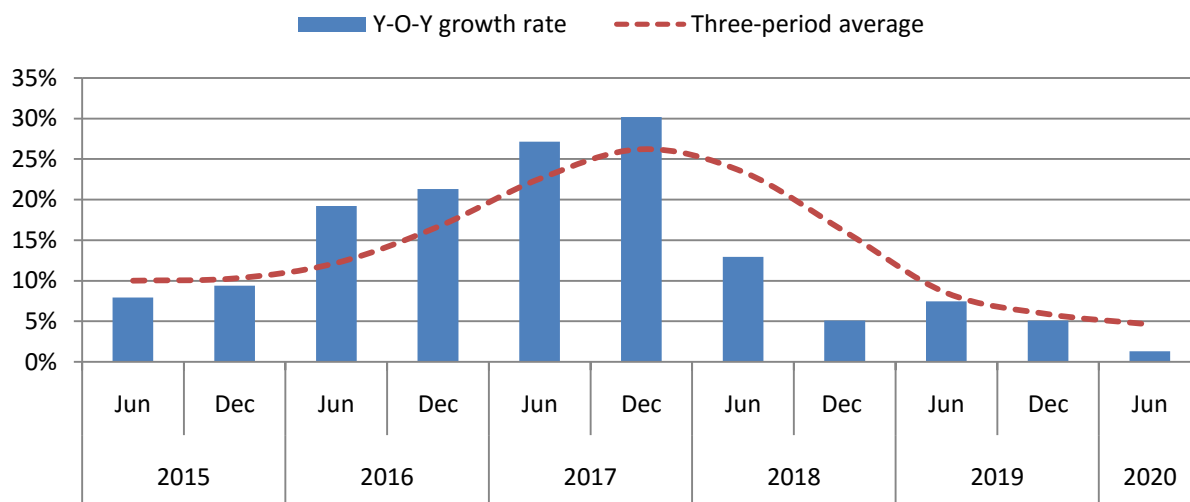## 2.1 Growth of banks' loans to households
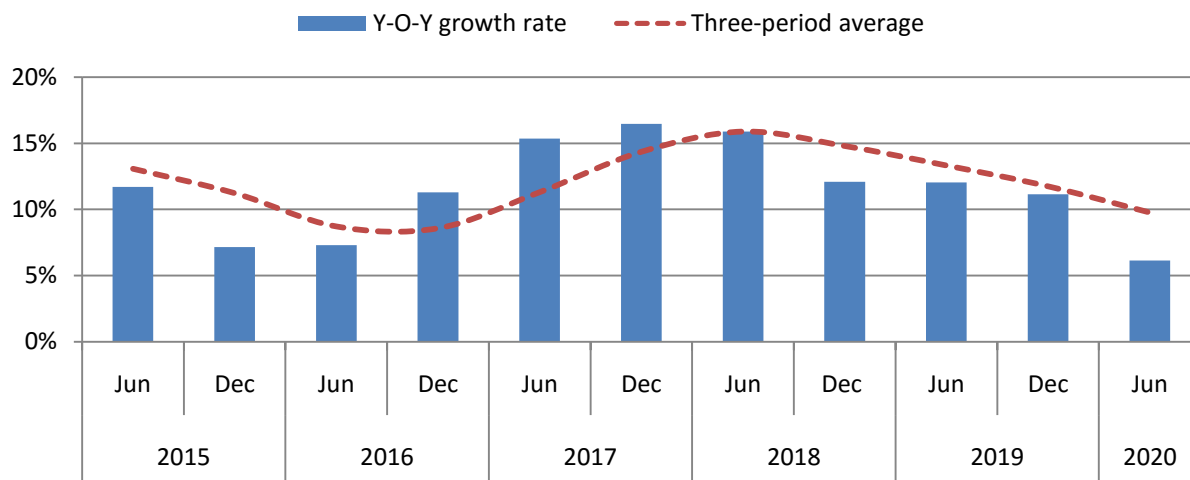
Source: Statistics Department, BB.
Notes: Loans refer to outstanding loans and advances extended to domestic households (individuals) excluding bills.

An overall downward trend in growth of household loans is observed since December 2019. At end-June 2020, further decrease was recorded compared to that of end-December 2019.

2.2 Growth of NBDCs' loans to households

Source: Statistics Department, BB.
Notes: NBDCs include deposit taking FIs[2], Ansar-VDP Unnayan Bank, Karmasangsthan Bank, Grameen Bank and Bangladesh Samabaya Bank.

Non-bank depository corporations' (NBDC) loan growth to household sector showed a downward trend since June 2019. The growth declined further at end-June 2020 compared to that of end-December 2019.

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[2] FIs refer to non-bank financial institutions. Out of 34 FIs, 29 are deposit taking FIs.

2. Credit risk–Cont'd.

2.3 Growth of banks' loans to private non-financial corporation (NFC)

Y-O-Y growth rate   - - - Three-period average

Source: Statistics Department, BB.
Notes: Loans refer to outstanding loans and advances extended to private NFCs excluding bills.

An overall downward trend in growth of private NFCs' loans is observed since June 2018. However, loan growth increased marginally at end-June 2020 compared to that of the preceding period.

2.4 Growth of NBDCs' loans to private non-financial corporation (NFC)

Y-O-Y growth rate   - - - Three-period average

Source: Statistics Department, BB.
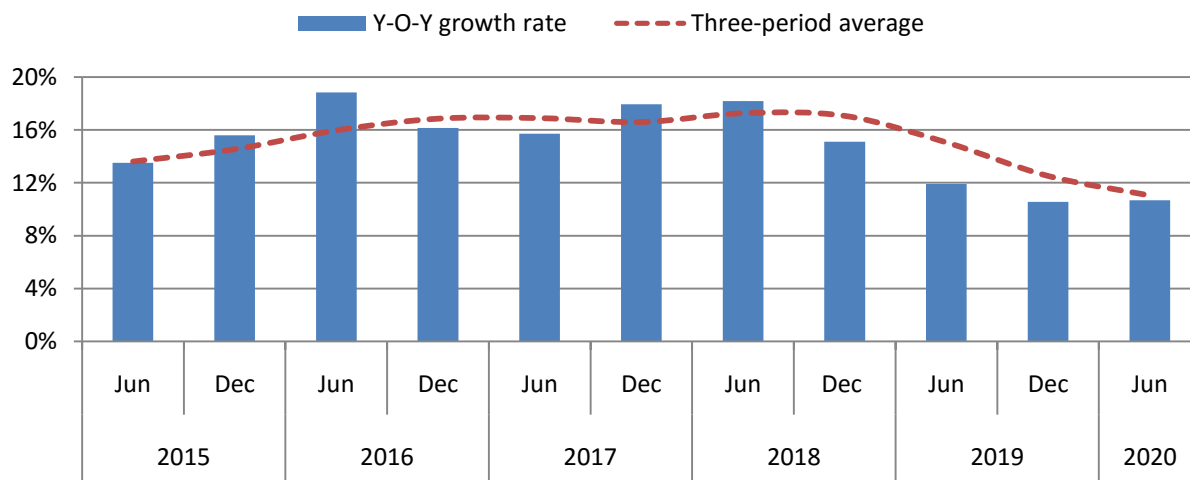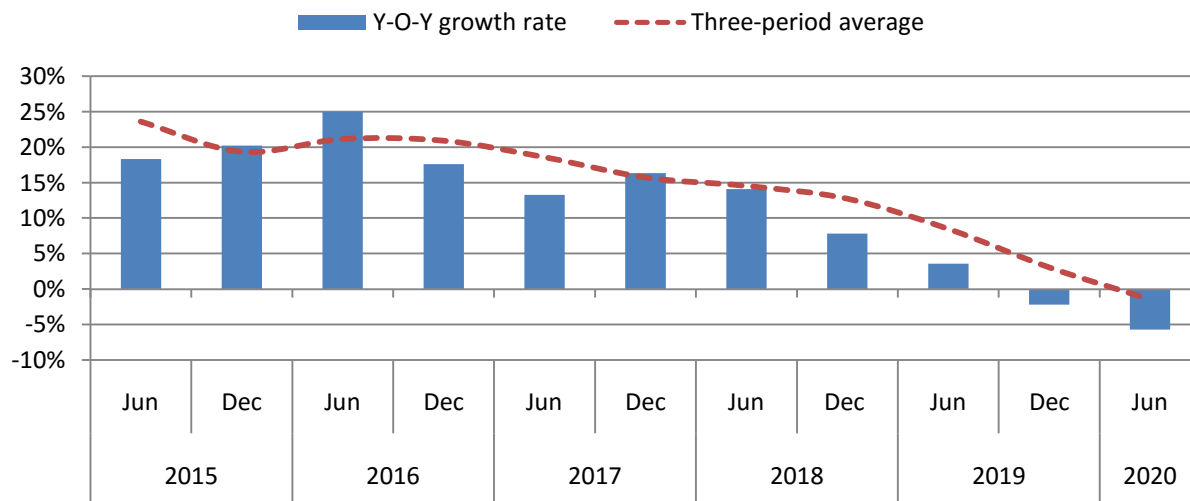Notes: NFC refers to private NFCs only. NBDCs include deposit taking FIs, Ansar-VDP Unnayan Bank, Karmasangsthan Bank, Grameen Bank and Bangladesh Samabaya Bank.

NBDCs' loan growth to private NFCs remained downtrend since December 2017 and turned negative at end-December 2019. The growth remained negative in the first half of 2020.

2. Credit risk–Cont'd.

2.5 Provision maintenance ratio of banks

Provision Maintenance ratio ■   Three-period average ---
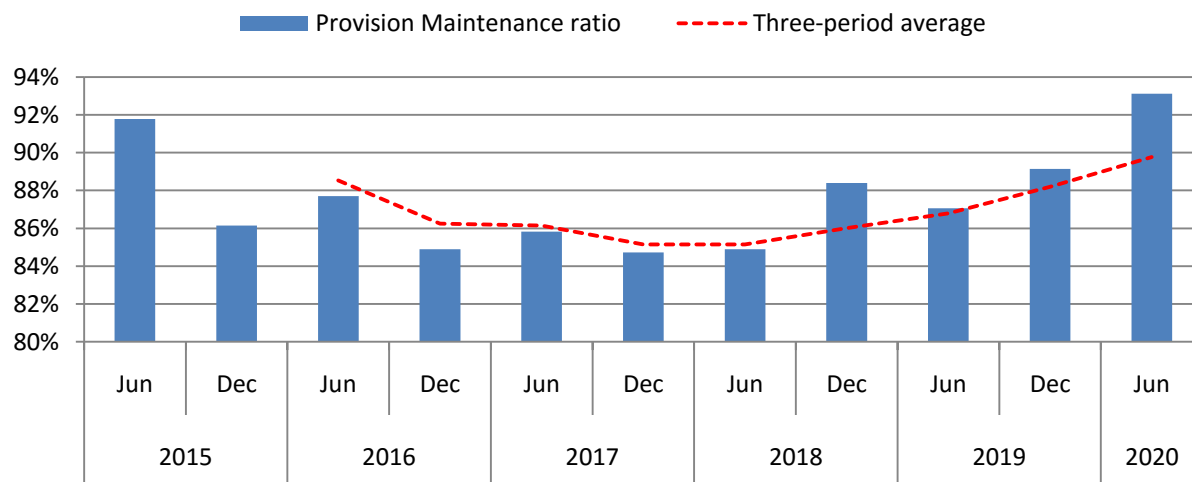
Source: BRPD, BB.
Notes: Provision maintenance ratio refers to maintained provision as a percentage of required provision.

Banks' provision maintenance ratio recorded an increase at end-June 2020 compared to that of end-December 2019.

2.6 Provision maintenance ratio of FIs

Provision maintenance ratio ■   Three-period average ---
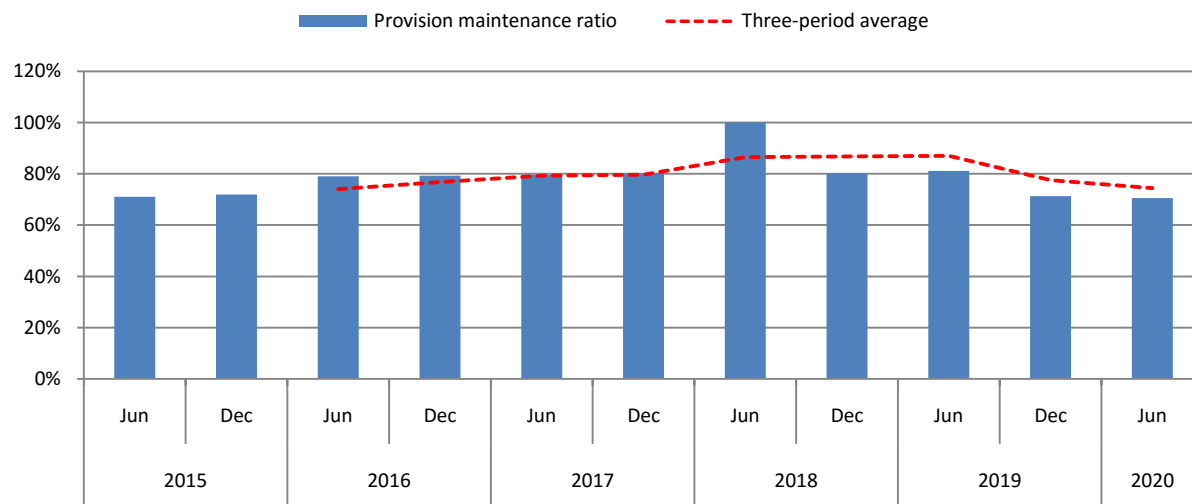

Source: DFIM, BB.
Notes: Due to NBDCs' data unavailability, data of FIs were used which include both deposit takers and non-deposit takers. Data for June 2020 is provisional.

FIs' provision maintenance ratio registered slight decline at end-June 2020 compared to the position of the preceding period.
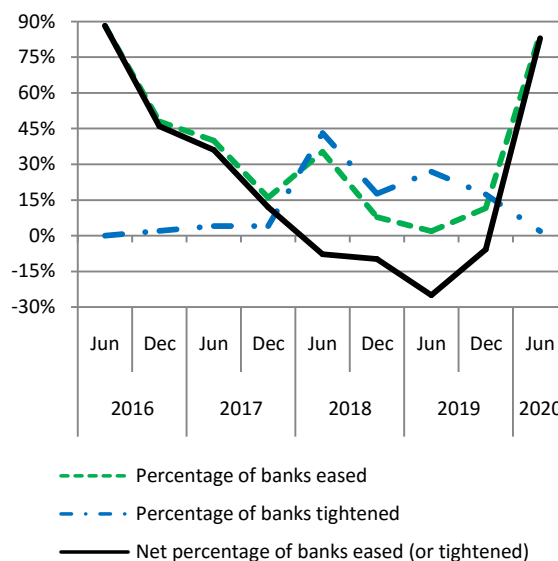
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2. Credit risk–Cont'd.

2.7 Changes in banks' interest rates for housing loans

a. No. of banks having changes in their interest rates for housing loans
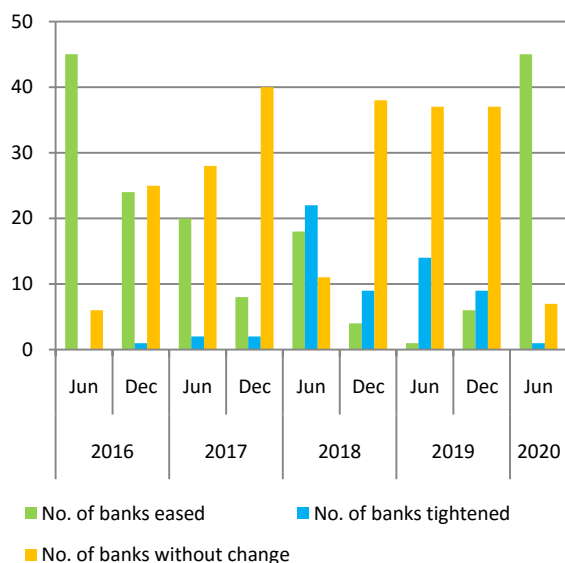
**b. Percentage of banks having changes in their interest rates for housing loans**

Source: Scheduled bank lending rate, Bangladesh Bank website (https://www.bb.org.bd/fnansys/interestlending.php).

Notes: Changes in banks' announced interest rate for housing loans have been used as a proxy for changes in banks' credit standards. Net percentage change is the difference between the share of banks reporting that interest rates have been eased (decreased) and the share of banks reporting that they have been tightened (increased). A positive net percentage change indicates that a larger proportion of banks have eased credit standards ("net easing"), whereas a negative net percentage change indicates that a larger proportion of banks have tightened credit standards ("net tightening").

In the first half of 2020, 84.9 percent banks eased the interest rates of housing loans while 1.9 percent banks tightened the same; the remaining banks kept their rates unchanged during the same period. Hence, after netting off the impacts of easing, an overall net easing is observed during this period.

3. Funding and liquidity risk

3.1 Bangladesh Bank's liquidity support to banks
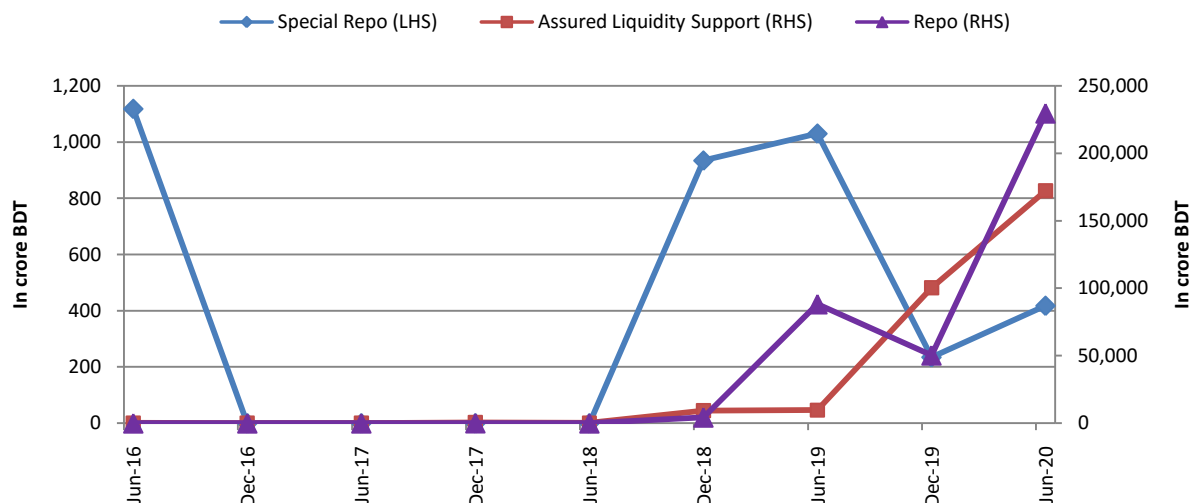
Source: DMD, BB.

Liquidity support of Bangladesh Bank in the form of Assured Liquidity Support, Repo and Special repo increased significantly during the first half of 2020 compared to that of the preceding period.

3.2 Banks' advance-to-deposit ratio
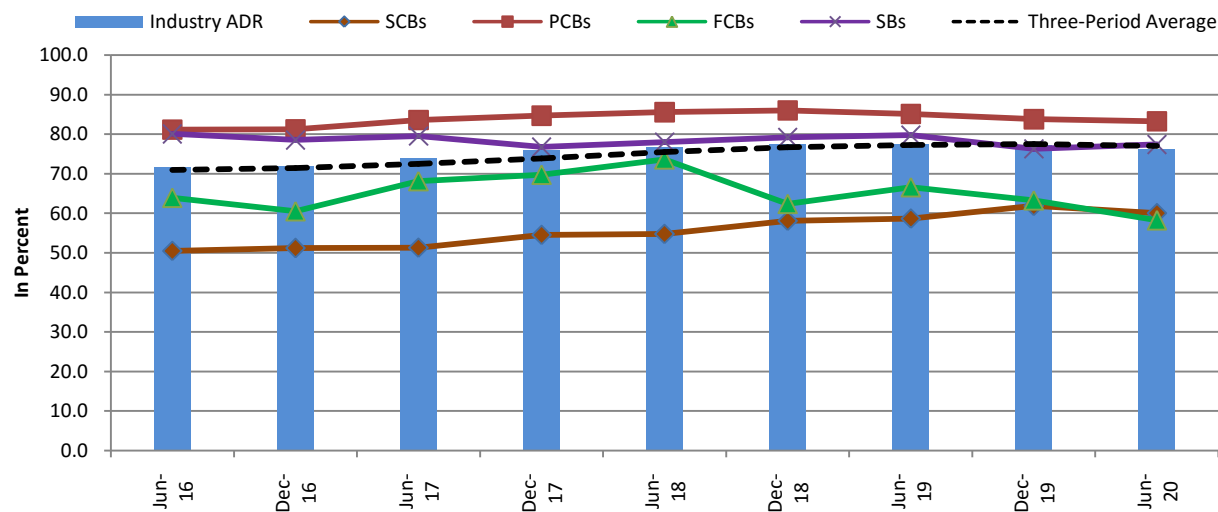
Source: DOS, BB.

Advance-to-deposit ratio (ADR) decreased at end-June 2020 compared to that of end-December 2019. ADR of PCBs was the highest while FCBs' ADR was the lowest at end-June 2020.

3. Funding and liquidity risk–cont'd.

3.3 Maturity profile of government's outstanding debt securities

a. Treasury Bond

Source: DMD, BB.

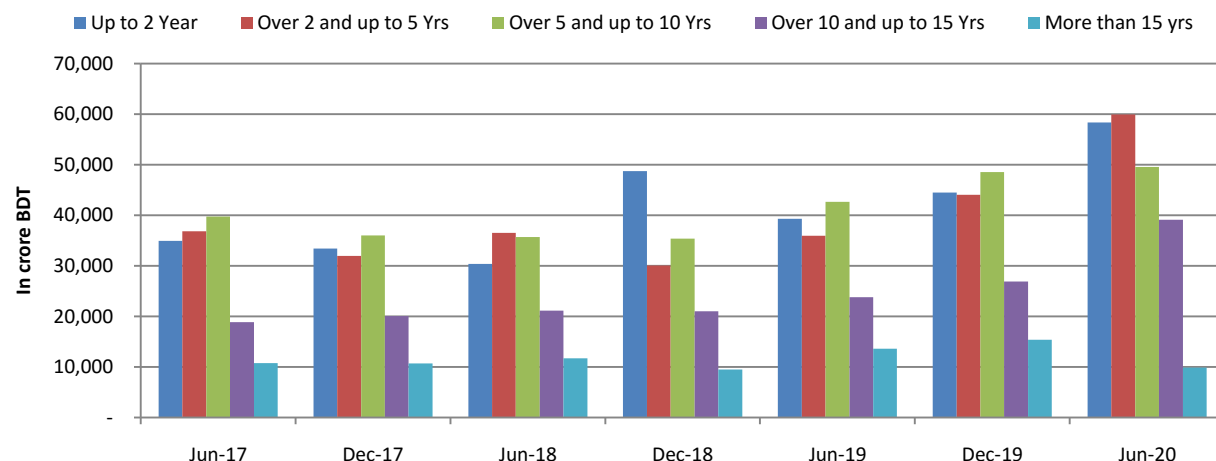Notes: The maturity profile refers to the residual maturity of long-term and short-term debt securities issued by Government of Bangladesh. Banks are the major investors accounting for more than 70 percent of overall holdings of these securities. Long-term debt securities include government treasury bond with a maturity of more than 12 months. Data are based on amounts outstanding at the end of the corresponding period.

Treasury bonds with all types of remaining maturities except for bond with maturity of more than 15 years increased at end-June 2020 compared to those of December 2019. Besides, there were special purpose treasury bonds (SPTB) of different maturities which remained same at BDT 10,695.9 billion as of end-June 2020.

b. Treasury Bill
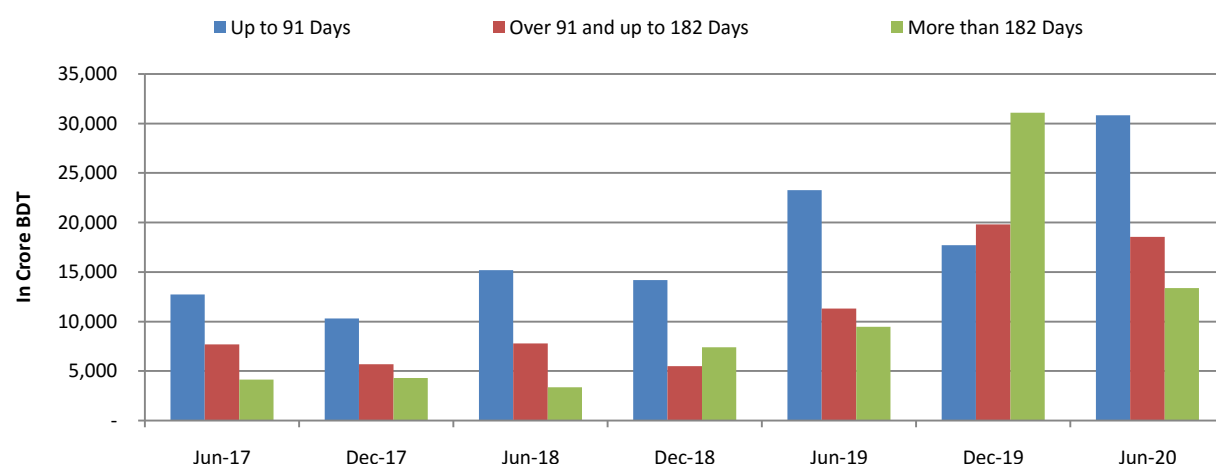
Source: DMD, BB.

Notes: Short-term debt securities include government Treasury bill with a maximum maturity of 12 months. Data are based on amounts outstanding at the end of the corresponding period.

Treasury bills with all types of remaining maturities except for bills with maturity of up to 91 days decreased at end-June 2020 compared to those of December 2019.

3. Funding and liquidity risk–cont'd.

3.4 Subordinated debt
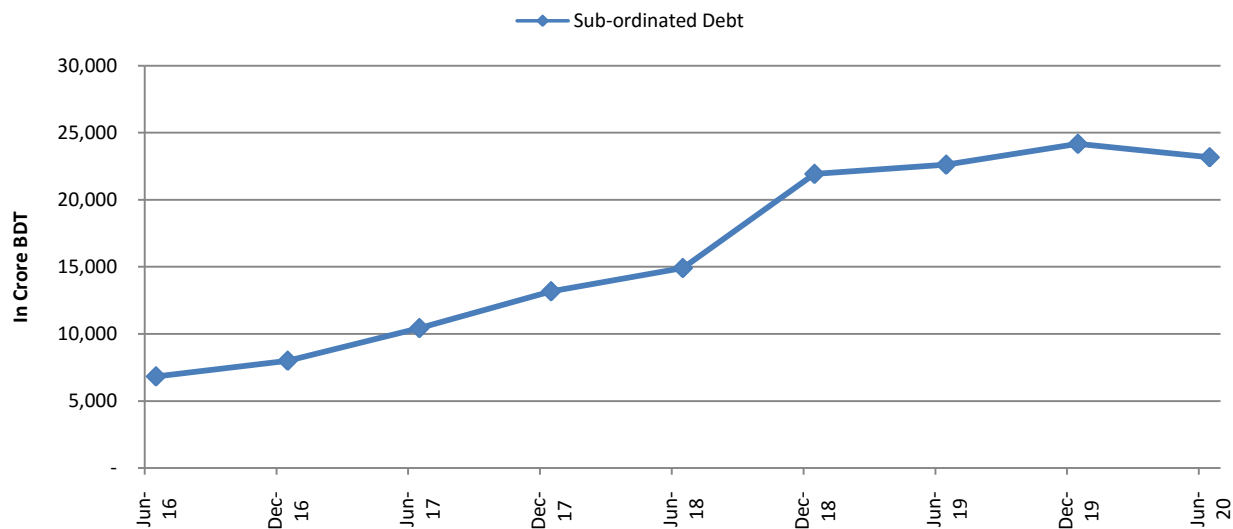
Source: DOS, BB.

Note: Subordinated debts are eligible to be included as Tier 2 Capital for calculating the regulatory capital as per BASEL III Capital Framework.

Issuance of subordinated debts by banks recorded a slowdown in June 2020 compared to that of the preceding period.

4. Market risk

4.1 Equity indices
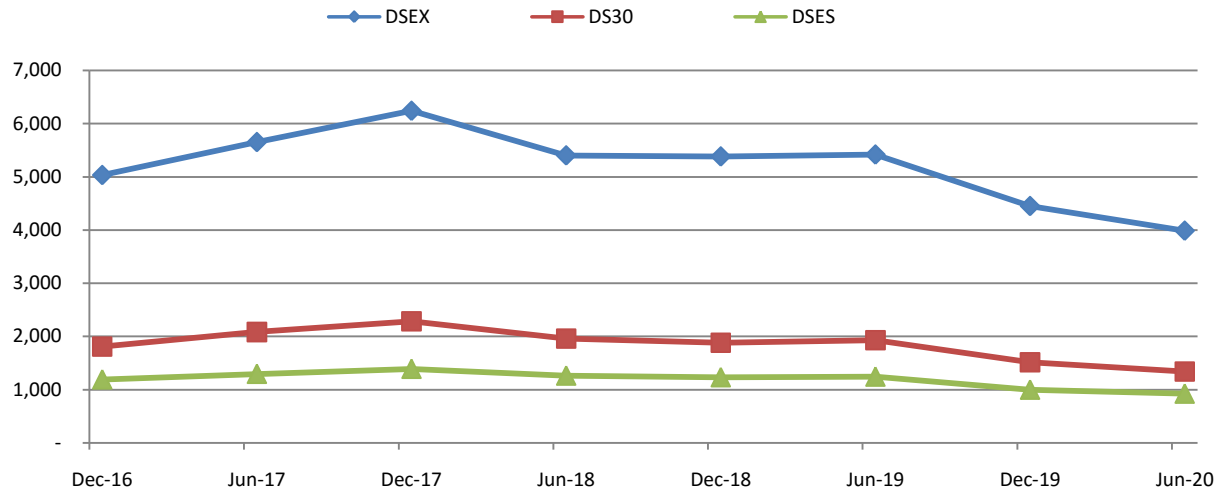
Source: DSE Website.

DSE Broad Index, DSEX, decreased further at end-June 2020 compared to that of end-December 2019. Besides, DS30 and DSES also exhibited same trend in the review period.

4.2 Price/earnings (P/E) ratio
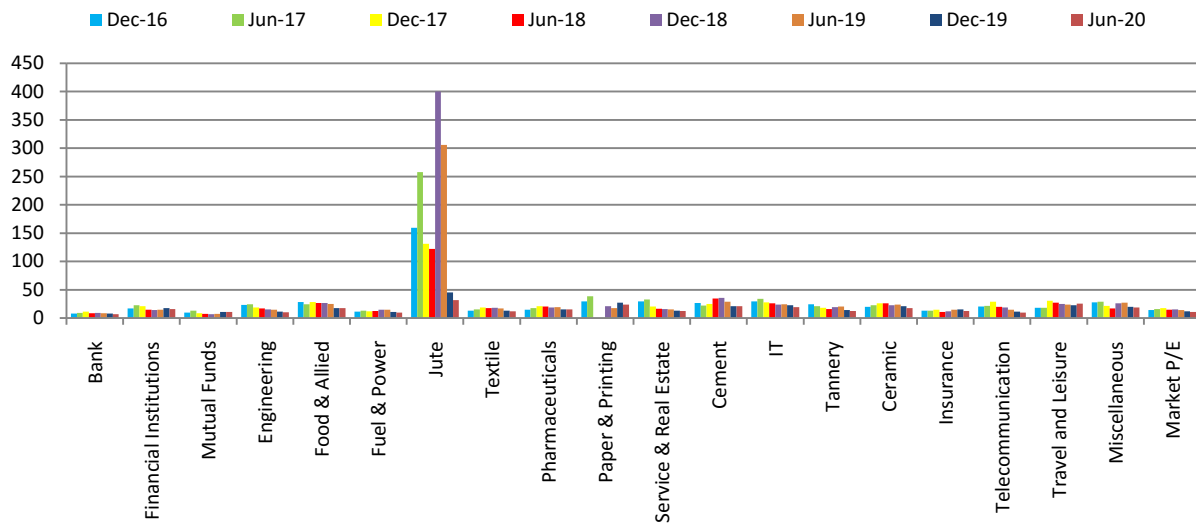
Source: DSE Website.

Market P/E ratio decreased further and stood at 10.8 at end-June 2020, which was 11.8 at end-December 2019. P/E ratio of all sectors except travel and leisure sector showed the same trend.

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4. Market risk–cont'd.

4.3 Weighted average call money market rates
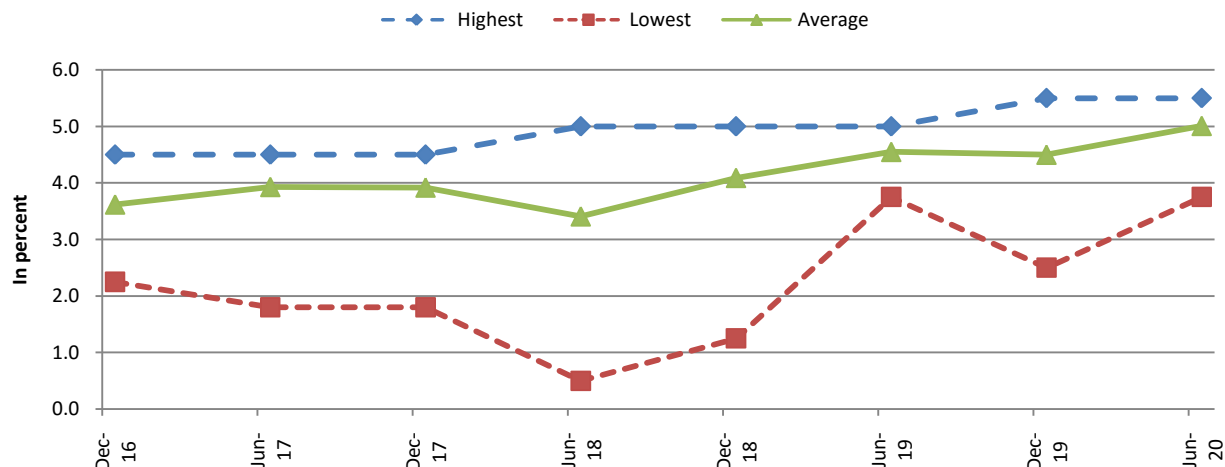
Source: Monthly Economic Trends, BB.

Weighted average call money borrowing rate increased at end-June 2020 compared to that of end-December 2019.

4.4 Scheduled banks' weighted average interest rate on deposits and advances
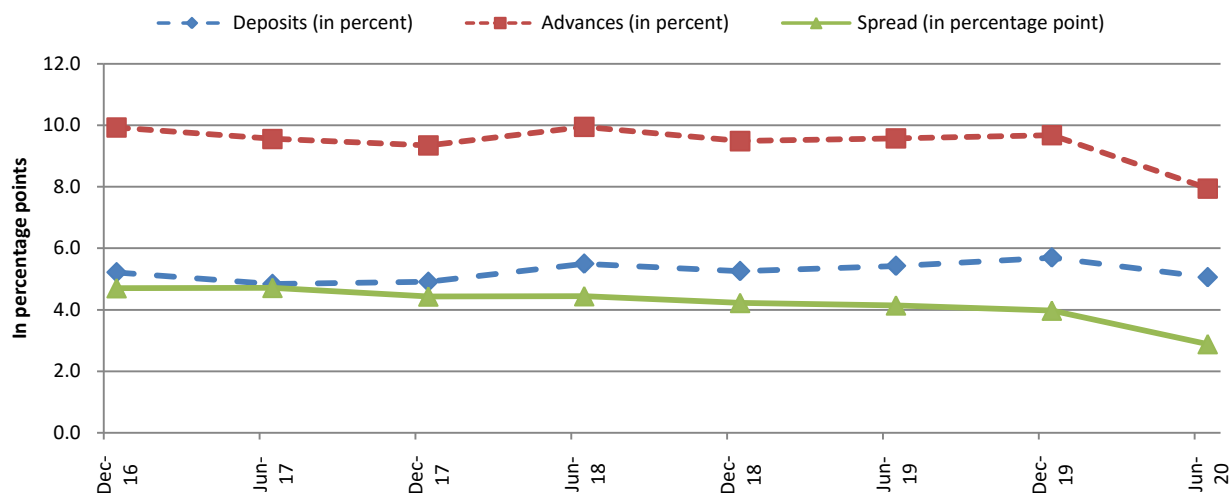
Source: Monthly Economic Trends, BB.

Weighted average interest rates on both advances and deposits decreased at the end of June 2020 compared to those of end-December 2019. The spread also declined in the review period.

4. Market risk–cont'd.

4.5 Weighted average exchange rate (BDT/USD)
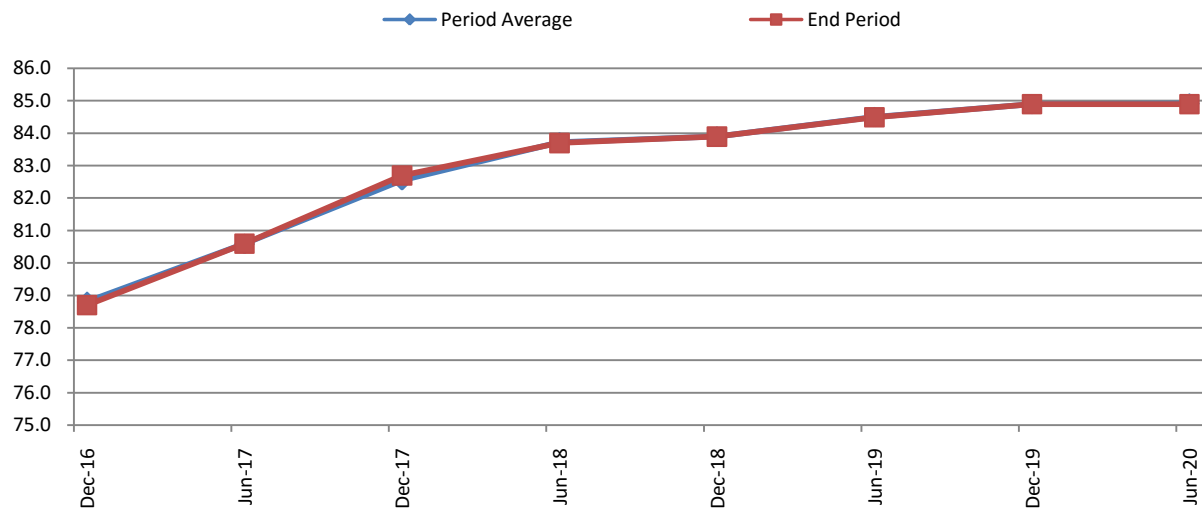
Source: Monthly Economic Trends, BB.

The nominal exchange rate (BDT per USD) remained almost unchanged at end-June 2020.

5. Profitability and solvency risk

5.1 Banks' profitability indicators

a. Return on equity (ROE)
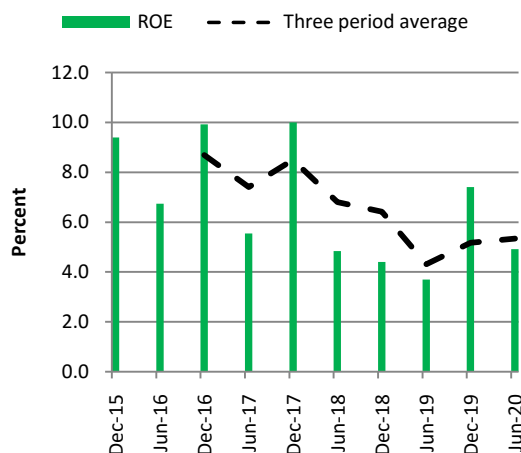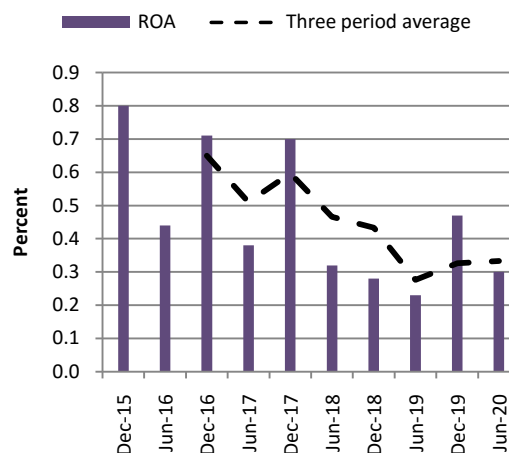
Source: DOS, BB; Computation: FSD, BB.

b. Return on assets (ROA)

Both ROE and ROA decreased during the first half of 2020 compared to the positions of the preceding period.

c. Cost-to-income ratio
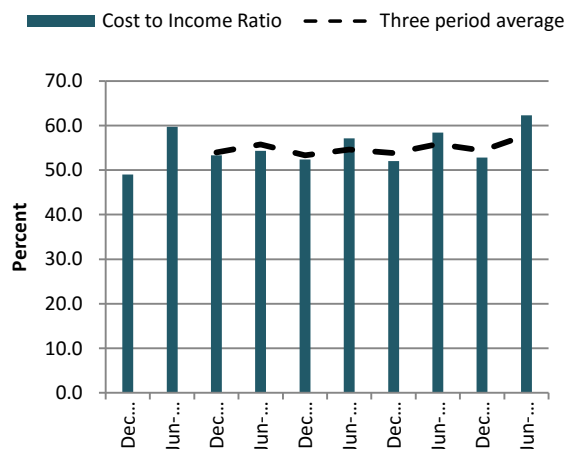
Source: DOS, BB; Computation: FSD, BB.
Note: Ratio between operating expenses and operating income.

d. Net interest income to total operating income ratio
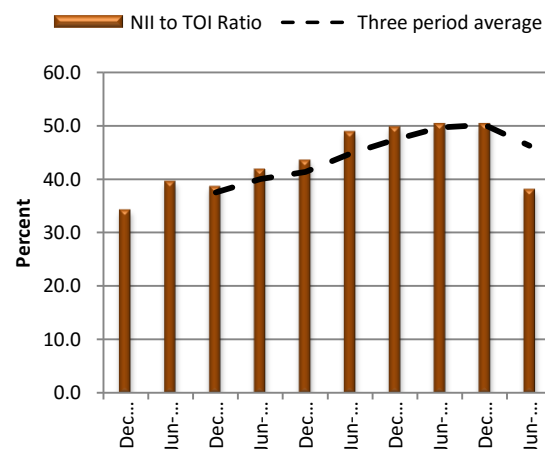
Source: DOS, BB; Computation: FSD, BB.

Compared to the positions of July-December 2019, banks' cost-to-income ratio increased during January-June 2020. Banks' net interest income to total operating income ratio decreased during the same period.

5. Profitability and solvency risk–cont'd.

5.2 Banks' solvency indicators

a. Tier-1 to RWA ratio

T-1 to RWA Ratio — — **Three period average**
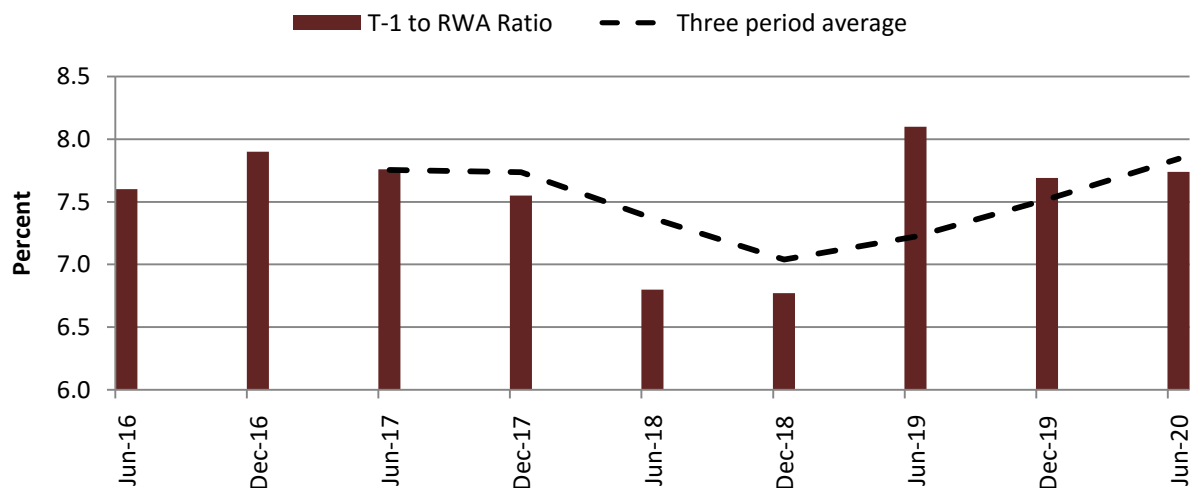
Source: DOS, BB.
Note: Ratio of Tier-1 capital to total risk-weighted assets.

Banks' tier-1 capital ratio increased at end-June 2020 compared to that of the preceding period and remained well above the regulatory requirement.

b. Gross non-performing loan (NPL) ratio

NPL Ratio — — **Three period average**
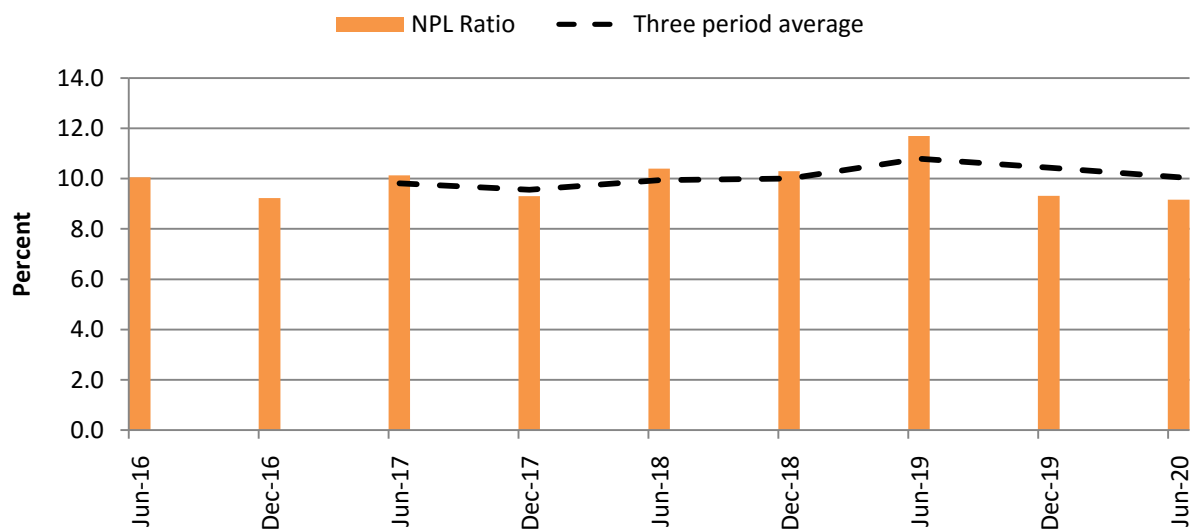
Source: BRPD, BB.
Note: Ratio of total non-performing loans & advances to total loans & advances.

The gross NPL ratio decreased slightly at end-June 2020 compared to that of end-December 2019.

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5. Profitability and solvency risk–cont'd.

5.3 FIs' profitability indicators
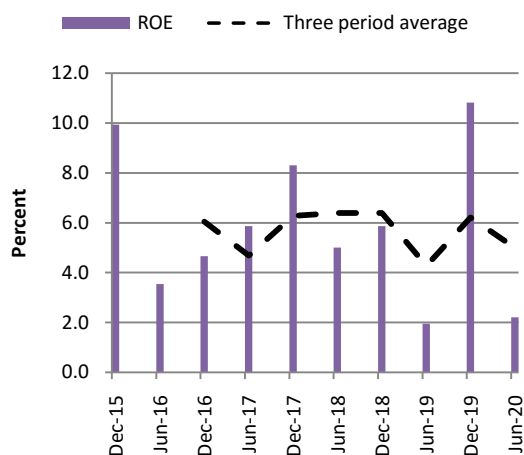
a. Return on equity (ROE)

Source: Financial Institutions (for June 2020) and DFIM, BB (for earlier periods).
Note: Data for June 2020 is provisional.

b. Return on assets (ROA)
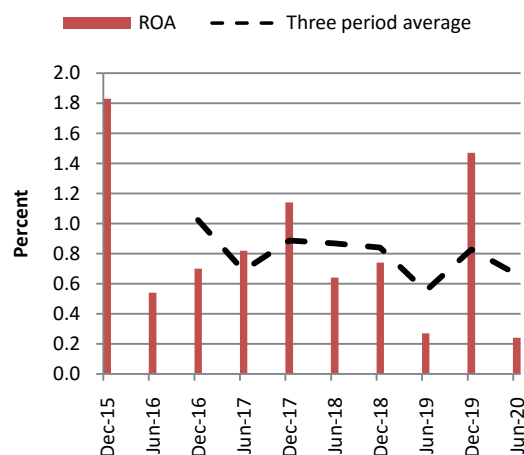
Source: Financial Institutions (for June 2020) and DFIM, BB (for earlier periods).
Note: Data for June 2020 is provisional.

FIs' ROE and ROA decreased sharply during January-June 2020 compared to those of July-December 2019.

c. Cost-to-income ratio
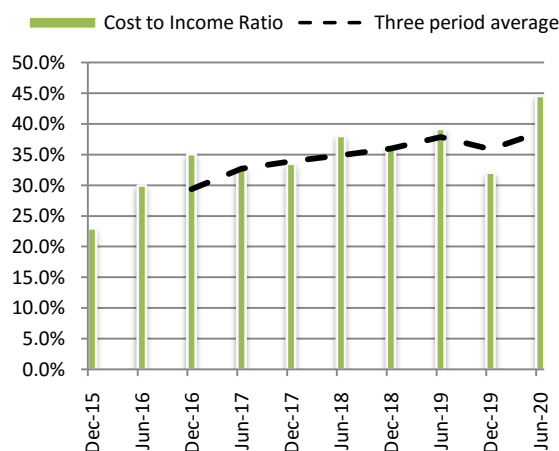
Source: Financial Institutions (for June 2020) and DFIM, BB (for earlier periods).
Note: Cost to income ratio refers to ratio between operating expenses and total income. Data for June 2020 is provisional.

d. Net interest income to total operating income ratio
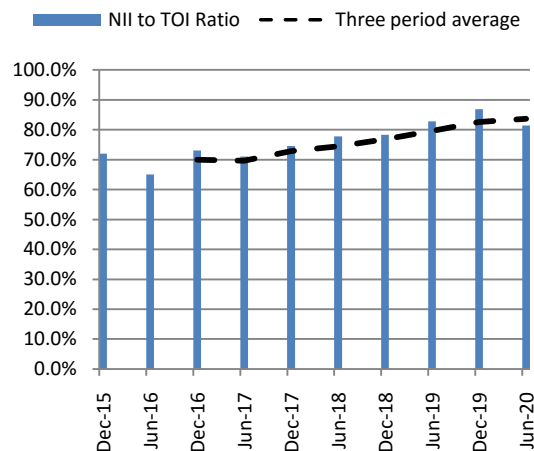
Source: Financial Institutions (for June 2020) and DFIM, BB (for earlier periods).
Note: Data for June 2020 is provisional.

FIs' cost-to-income ratio increased during the first half of 2020 compared to that of the previous period. On the other hand, net interest income to total operating income ratio decreased during the same period.

5. Profitability and solvency risk–cont'd.

## 5.4 FIs' solvency indicators

a. Tier-1 to RWA ratio

T-1 Cap. to RWA ratio   Three period average
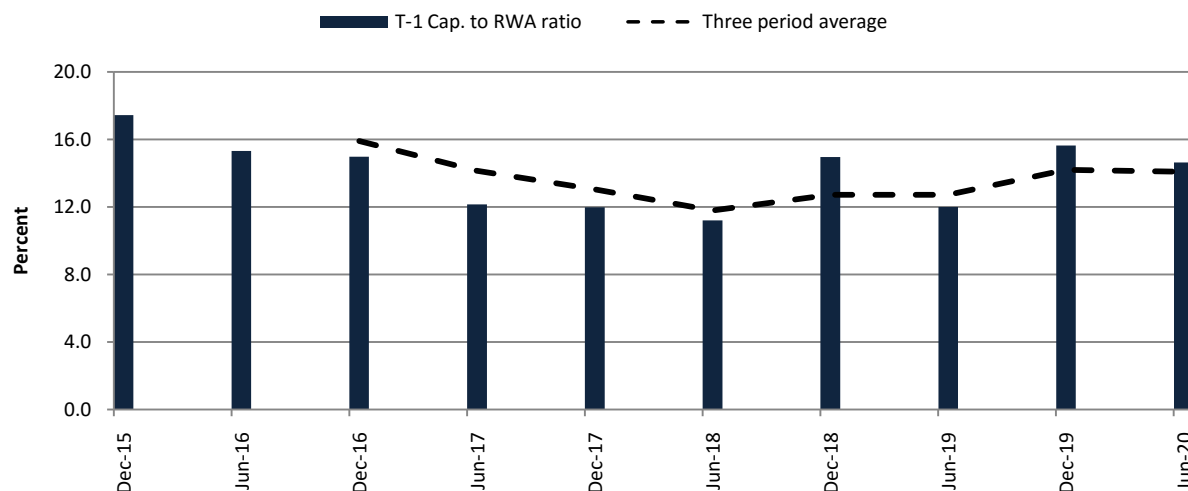
Source: DFIM, BB.
Note: Ratio of Tier-1 (core) capital to total risk-weighted assets. June 2020 data is provisional.

FIs' Tier-1 to RWA ratio decreased slightly at end-June 2020 compared to that of the preceding period; however, the ratio remained well above the regulatory requirement.

b. Gross non-performing loan (NPL) ratio

NPL Ratio   Three period average
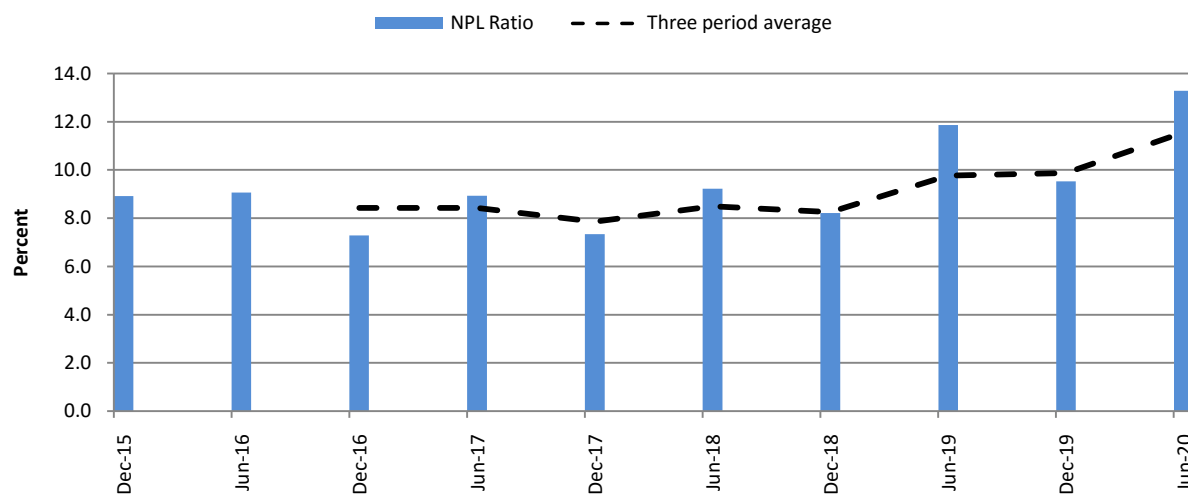
Source: DFIM, BB
Note: Ratio of non-performing loans & leases to total loans & leases. Data for June 2020 is provisional.

Gross NPL ratio of FIs increased at end-June 2020 compared to that of end- December 2019 and end-June 2019.

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6. Inter-linkages

6.1 Growth of banks' credit (gross) to government
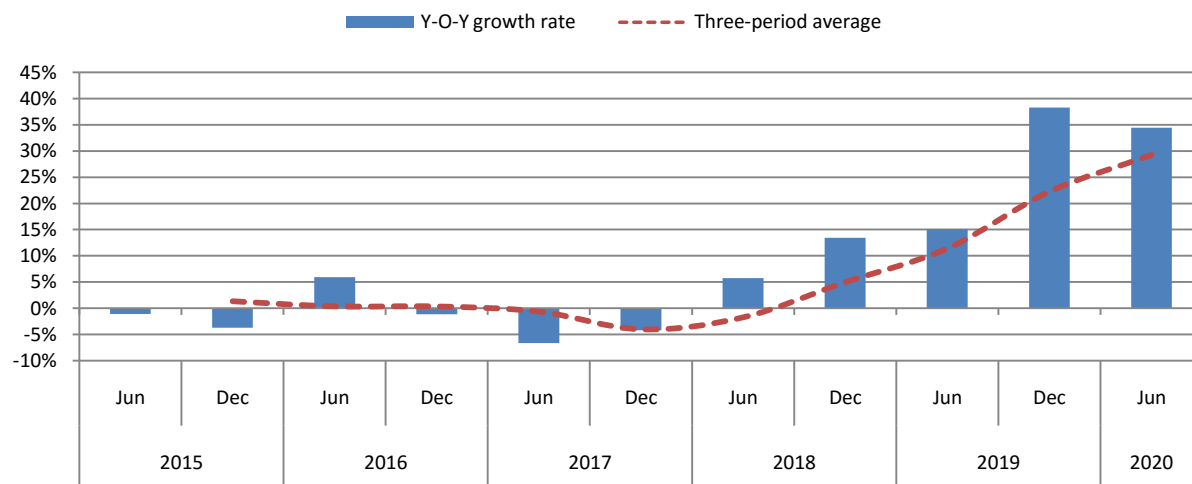
Source: Statistics Department, Bangladesh Bank.
Notes: Credit extended to the government refers to gross amount.

Government borrowings from the banking sector registered a slight decline at end-June 2020 compared to the previous period.

6.2 Growth of NBDCs' credit (gross) to government
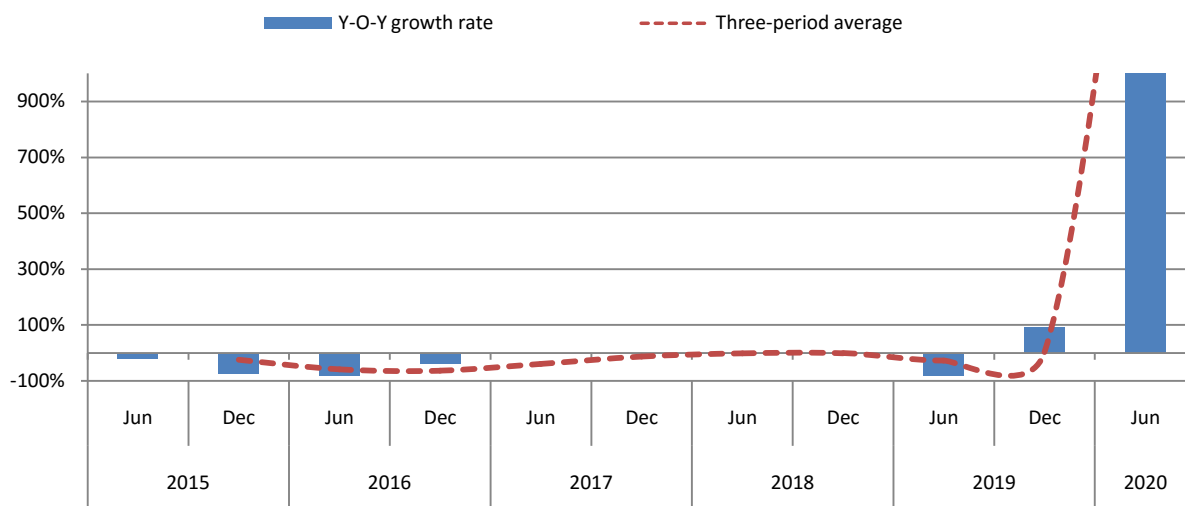
Source: Statistics Department, Bangladesh Bank.
Notes: NBDCs include deposit taking FIs, Ansar-VDP Unnayan Bank, Karmasangsthan Bank, Grameen Bank and Bangladesh Samabaya Bank.

Government borrowings from the NBDCs, though remained very low compared to the same from the banking system, witnessed a sharp rise at end-June 2020 compared to the preceding period.

6. Inter-linkages– Cont'd.

6.3 Growth of banks' loans to housing sector

a. Loans to residential housing

b. Loans to commercial housing
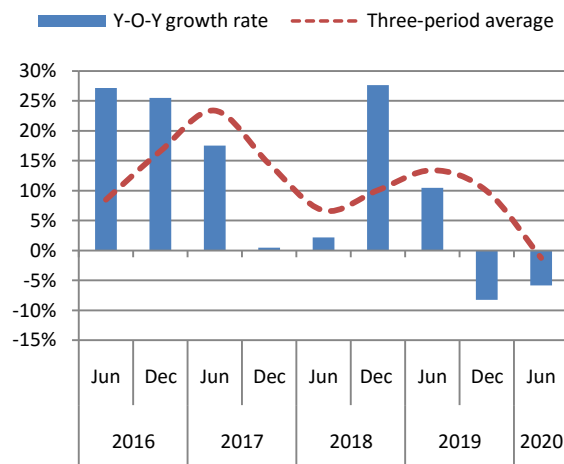
Source: Statistics Department, Bangladesh Bank.

Notes: Data for June 2020 are provisional. Loans refer to outstanding loans and advances excluding bills. Loans to residential housing refer to loans extended to domestic households for house/flat/land purchase and repair/renovation/extension. Loans to commercial housing refer to loans extended to commercial developers/contractors.

Loan growth in residential housing sector demonstrated a pickup at end-June 2020 compared to that of end-December 2019. Loan growth in commercial housing sector remained negative in the review period.

6.4 Growth of FIs' loans to housing sector
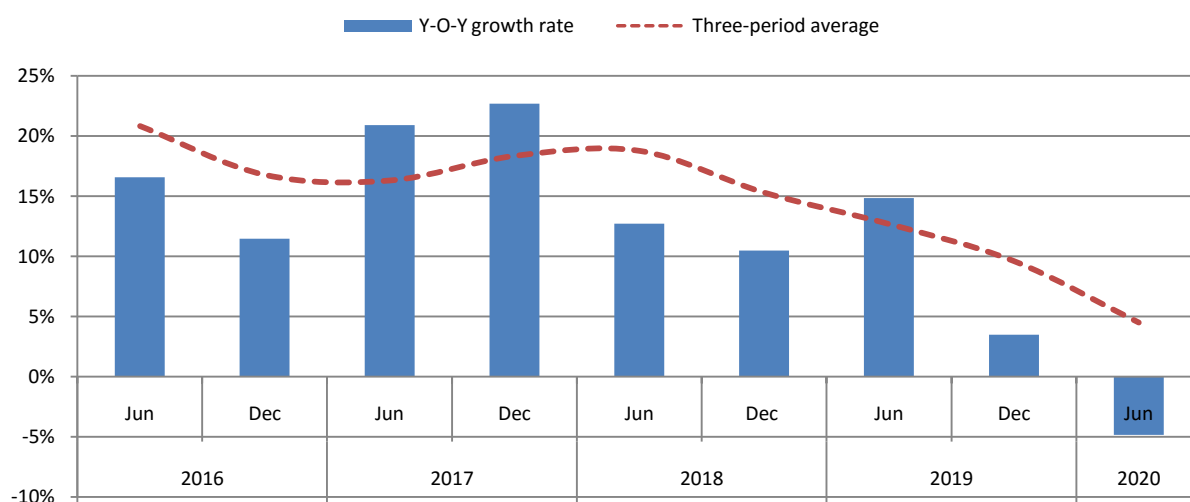
Source: DFIM, Bangladesh Bank.

Notes: Due to NBDCs' data unavailability, data of FIs were used which include both deposit takers and non-deposit takers.

Growth of FIs' loans to housing sector showed a sharp decline and turned negative at the end of June 2020.

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6. Inter-linkages– Cont'd.

6.5 Banks' loans to counterpart sectors

■ Households   ■ NFCs   ■ Government
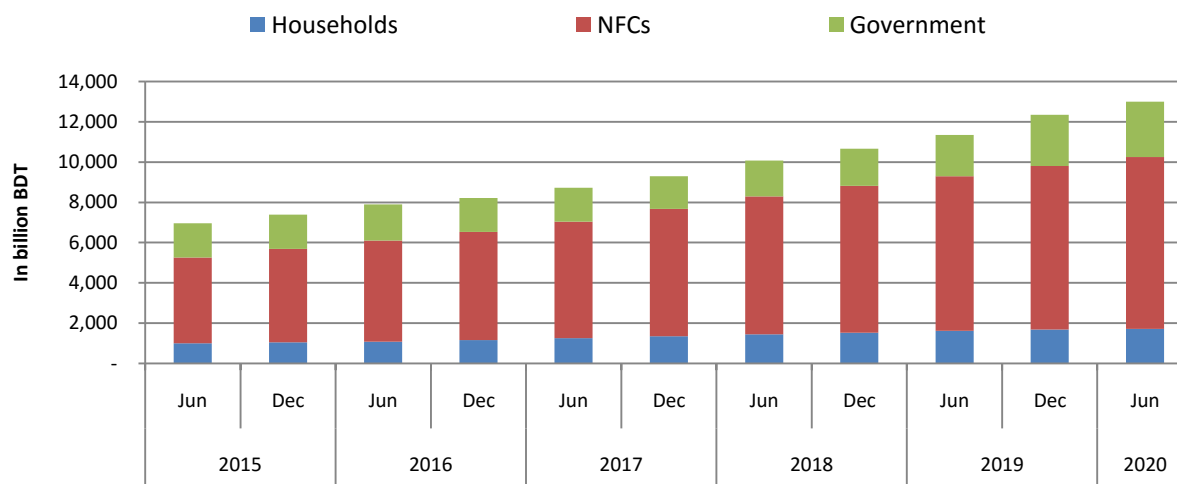
Source: Statistics Department, Bangladesh Bank.
Notes: Loans extended to households and NFCs refer to outstanding loans and advances excluding bills. Loans to government refer to gross amount.

Banks' exposures to its major public and private counterparts, led largely by private NFCs, continued its increasing trend.

6.6 NBDCs' loans to counterpart sectors

■ Households   ■ NFCs   ■ Government

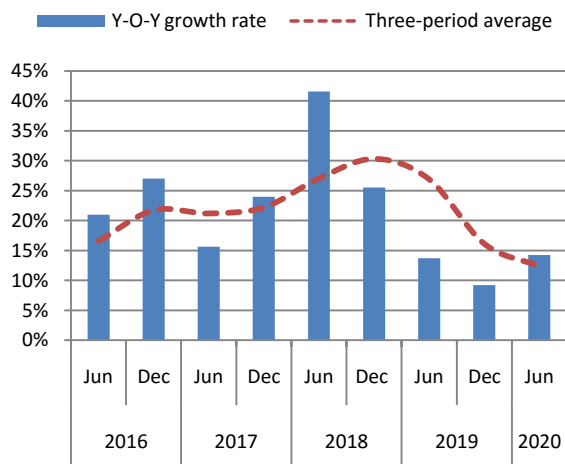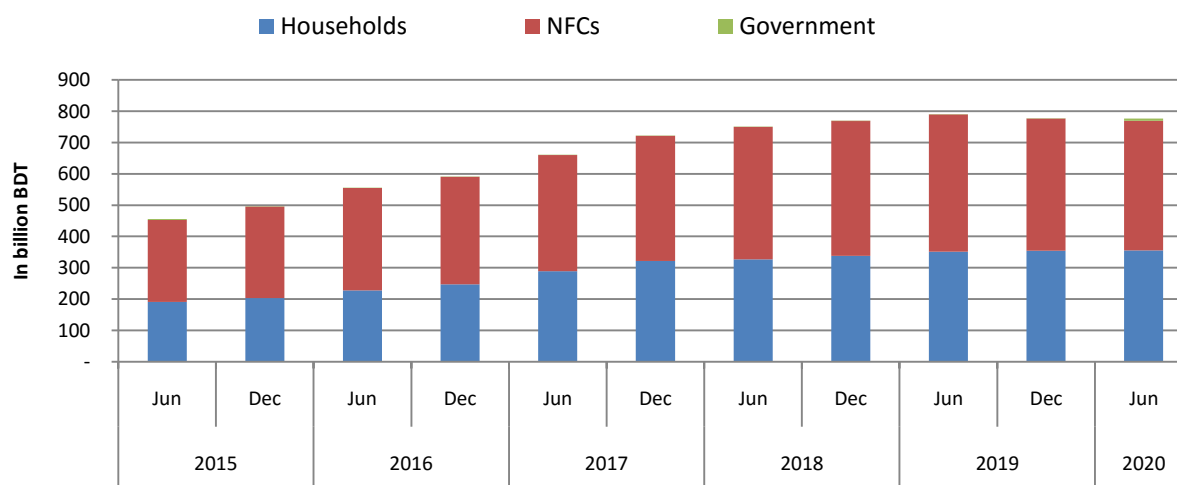Source: Statistics Department, Bangladesh Bank.
Notes: Loans to government refer to gross amount. NBDCs include deposit taking FIs, Ansar-VDP Unnayan Bank, Karmasangsthan Bank, Grameen Bank and Bangladesh Samabaya Bank.

NBDCs' loan portfolio experienced a slight decline at end-June 2020 largely due to decline in loans to NFC.

6. Inter-linkages– Cont'd.

6.7 Banks' cross-border claims
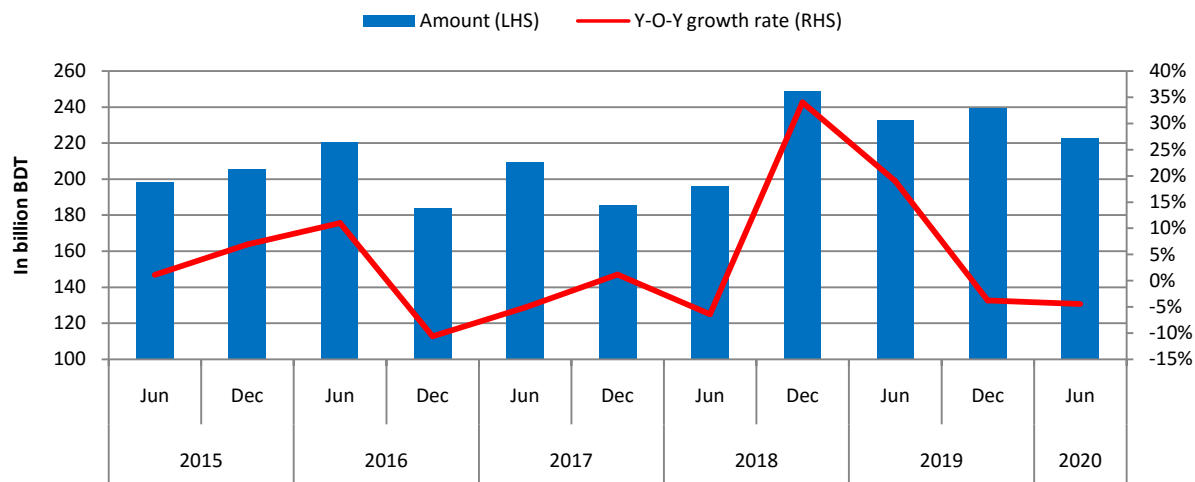
Source: Statistics Department, Bangladesh Bank.
Notes: Cross-border claims include foreign currency notes in hand, balances with banks abroad, bilateral trade credits, wage earners' balance abroad, foreign bills, foreign direct investment, portfolio investment.

Banks' cross-border claims decreased at end-June 2020 and remained low accounting for less than one percent of total assets of the banking sector.

6.8 NBDCs' cross-border claims
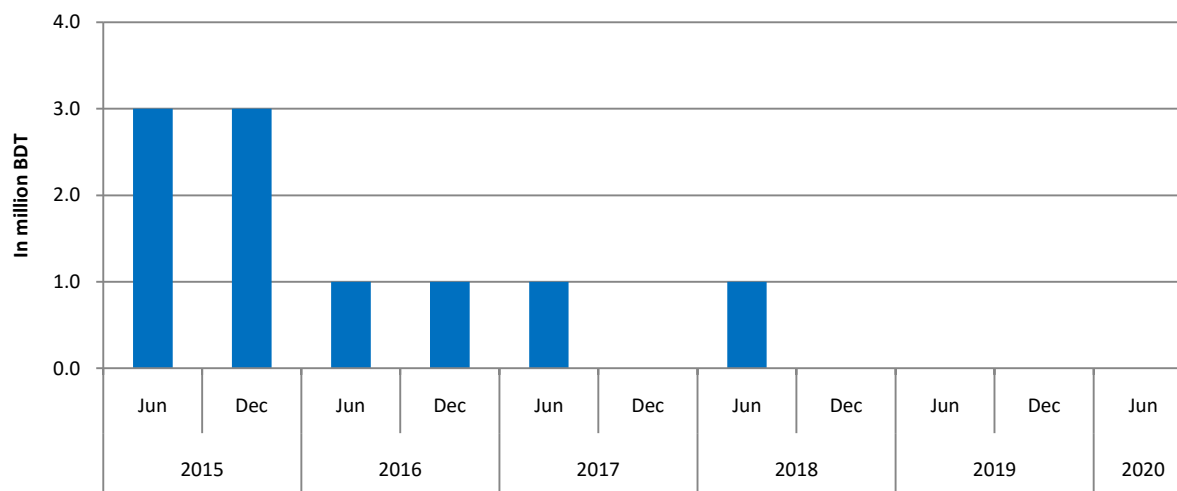
Source: Statistics Department, Bangladesh Bank.
Notes: Claims include only foreign currency notes in hand. No other claims have been generated yet. NBDCs include deposit taking FIs, Ansar-VDP Unnayan Bank, Karma Sangsthan Bank, Grameen Bank and cooperative banks.

NBDCs' cross-border claims remained almost non-existent at the end of June 2020.

7. Structural risk

7.1 Banking sector size
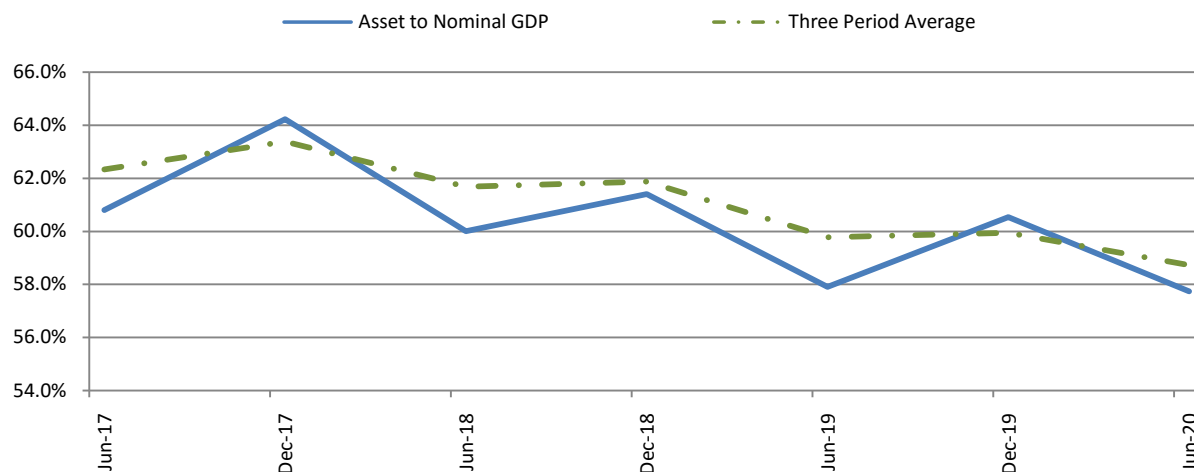
a. Domestic Banks

Source: DOS, BB and Monthly Economic Trends, BB; computation: FSD, BB.
Note: Ratio of domestic banks' total assets to Nominal GDP. As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating this ratio.

Domestic banks' total assets to nominal GDP ratio decreased in June 2020 compared to that of both December 2019 and June 2019.

b. Foreign Banks
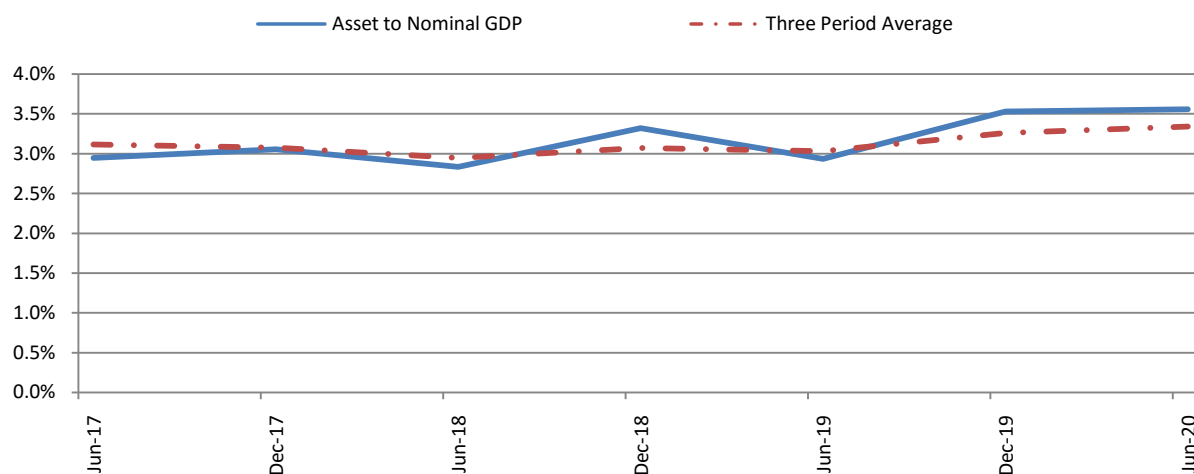
Source: DOS, BB and Monthly Economic Trends, BB; computation: FSD, BB.
Note: Ratio of foreign banks' total assets to Nominal GDP. As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating this ratio.

Foreign banks' total assets to nominal GDP ratio increased slightly in June 2020 compared to that of both December 2019 and June 2019.

7. Structural risk–cont'd.

7.2 Banking sector leverage
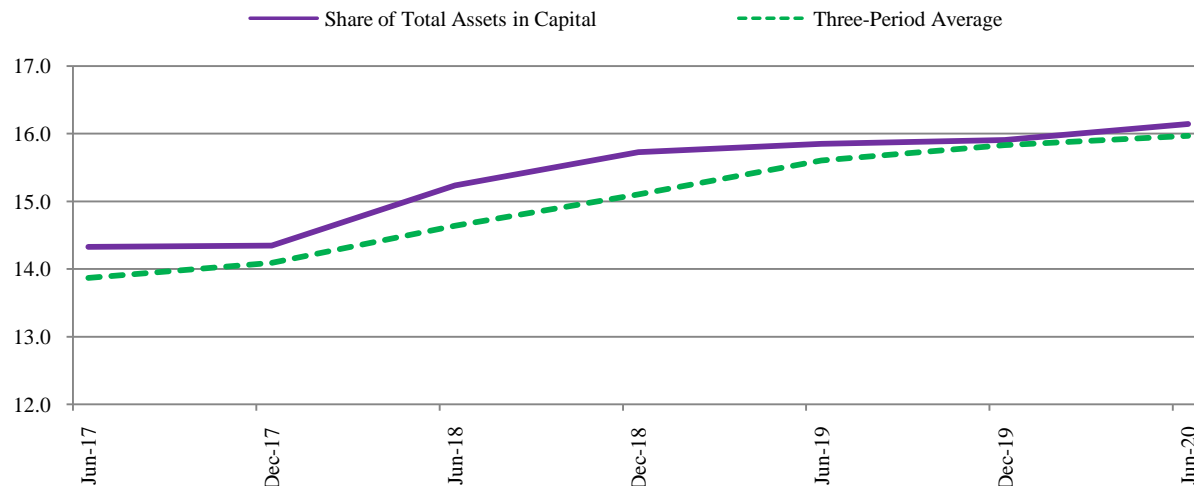
Source: DOS, BB; computation: FSD, BB.
Note: Leverage ratio is defined as total (on-balance sheet) asset of the banking sector to total (on-balance sheet) capital ratio.

Banking sector's total assets to capital ratio increased further in June 2020 compared to that of December 2019.

7.3 Financial institutions (FIs) sector size

FIs' assets to nominal GDP
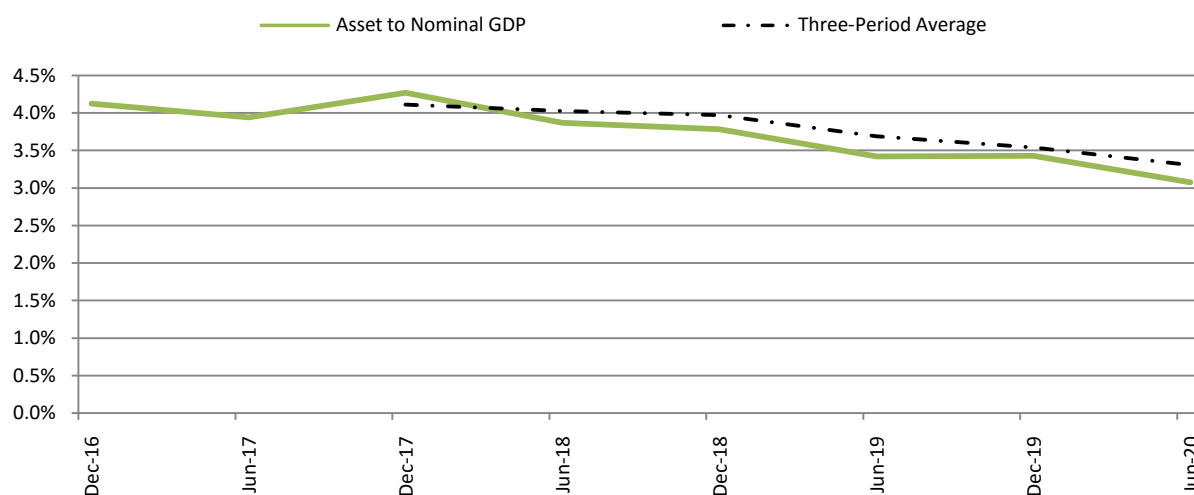
Source: Financial Institutions (for June 2020) and DFIM, BB (for earlier periods); computation: FSD, BB.
Note: As half yearly GDP is not calculated in Bangladesh, June based GDP data is used as a proxy for December in calculating this indicator.

An overall declining trend is observed in financial institutions' assets to nominal GDP ratio.

7. Structural risk–cont'd.

7.4 Financial institutions (FIs) sector leverage
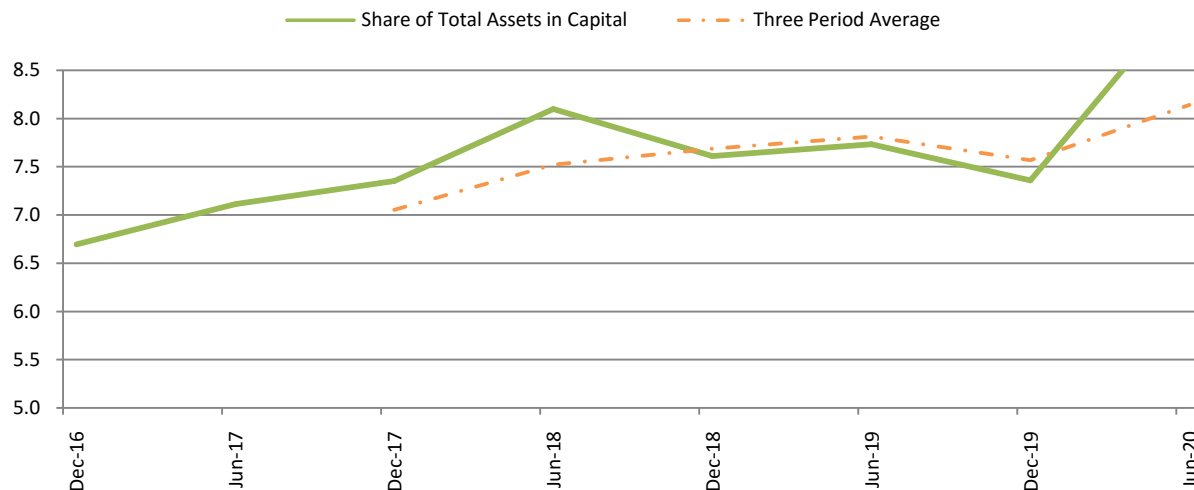
Legend: —— Share of Total Assets in Capital –·–· Three Period Average

Source: Financial Institutions (for June 2020) and DFIM, BB (for earlier periods); Computation: FSD, BB.
Note: Leverage ratio is defined as the total (balance sheet) asset of the FIs sector to total (balance sheet) capital ratio.

Financial institutions' total assets to capital ratio showed a sharp increase at end-June 2020 compared to that of the preceding period.

1. Macro risk:

1.1 Current and forecasted real GDP growth

Sources: Monthly Economic Trends, Bangladesh Bank and World Economic Outlook Database, IMF.

Current real GDP growth is the latest actual financial year-on-year growth at constant market price. Average of three periods is the three-year moving average of GDP growth rate. Forecasted real GDP growth rate is taken from IMF's World Economic Outlook Database.

1.2 Current account balance-to-GDP ratio

Sources: Monthly Economic Trends, BB.

Current account balance represents the sum of the 6 months' current account balances. GDP is at current market price. Average of three periods is the three-period moving average of current account balance-to-GDP ratio.

1.3 Aggregate Debt-to-GDP ratio

Sources: Monthly Economic Trends, BB and National Summary Data Page (NSDP)-Bangladesh.

The aggregate debt as percentage of GDP represents the sum of the debt-to-GDP ratio of Non-Financial Corporations, Government (net), households and external debt (gross).

1.4 Government debt-to-GDP ratio

Sources: Monthly Economic Trends, BB and National Summary Data Page (NSDP)-Bangladesh.

Government debt includes both government's domestic debt and external debt. The dotted line represents three-period moving average of the government debt-to-GDP ratio.

1.5 Government deficit-to-GDP ratio

Sources: Monthly Report on Fiscal Position, Finance Division, Ministry of Finance.

The government deficit-to-GDP ratio is shown as both deficits excluding grants and including grants to nominal GDP.

1.6 Household debt-to-gross disposable national income ratio

Sources: Monthly Economic Trends, BB.

Claims on other resident sector has been classified as Household's debts. The resident sector has been classified according to the IMF's Monetary and Financial Statistics Manual (MFSM). Claims on resident sector exclude BB and ODCs (other depository corporations). Household debt-to-gross disposable national income ratio represents resident sector loans as a ratio of gross disposable national income over the financial year.

1.7 NFC debt-to-GDP ratio

Sources: Monthly Economic Trends, BB.

Debts of both public non-financial corporations and private non-financial corporations are considered for deriving non-financial corporations' debt. Public non-financial corporations are corporations owned or controlled by the Government that produce goods or services for sale to the public at a significant market price whereas private non-financial corporations encompass corporations and quasi corporations engaging primarily in the production of goods and non-financial services for sale to the public at a significant market price (profit motive).

2. Credit Risk:

2.1 Annual growth rate of banks' loans to households

Source: Statistics Department, Bangladesh Bank.

It refers to loans extended by banks to domestic households (individual customers); it excludes bills purchased and discounted.

2.2 Annual growth rate of NBDCs' loans to households

Source: Statistics Department, Bangladesh Bank.

It refers to loans extended by non-bank depository corporations (NBDCs) to domestic households; NBDCs include depository financial institutions (FIs), Ansar-VDP Unnayan Bank, Karmasangsthan Bank, Grameen Bank and Bangladesh Samabaya Bank.

2.3 Annual growth rate of banks' loans to NFCs

Source: Statistics Department, Bangladesh Bank.

It refers to loans extended by banks to private non-financial corporations (NFCs); it excludes bills discounted and purchased.

2.4 Annual growth rate of NBDCs' loans to NFCs

Source: Statistics Department, Bangladesh Bank.

It refers to loans extended by NBDCs to private NFCs.

2.5 Provision maintenance ratio of banks

Source: Banking Regulation and Policy Department, Bangladesh Bank.

It refers to the ratio of loan-loss provision maintained by banks against their required provision. Mentionable that this ratio is calculated on yearly basis.

2.6 Provision maintenance ratio of FIs

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

It refers to the ratio of loan-loss provision, maintained by FIs, against their required provision; due to unavailability of data of all NBDCs, provision maintenance ratio of FIs was used as FIs constitute the majority of NBDCs.

2.7 Changes in banks' interest rates for housing loans

Source: Bangladesh Bank website (https://www.bb.org.bd/fnansys/interestlending.php).

It refers to the net percentage change in credit standards for housing loans by banks; changes in banks' announced interest rate for housing loans have been used as a proxy for changes in banks' credit standards; net percentage change is the difference between the share of banks reporting that interest rates have been tightened (increased) and the share of banks reporting that they have been eased (decreased).

3. Funding and liquidity risk:

3.1 Bangladesh Bank's liquidity support to banks

Sources: Debt Management Department, BB.

Bangladesh Bank's liquidity support comprises Repo, assured liquidity support and special repo. Repo facilities are provided on an overnight (one-day) or 7, 14 and 28-day basis to the banks and NBFIs to resolve the temporary liquidity problem as well as to increase the money supply in the economy. BB also provides ALS facilities to the PDs against govt. securities received from the auction up to 60 days from the date of issuance for the same purpose. Furthermore, BB provides a special liquidity facility under the Special Repo for special purposes.

3.2 Advance-to-deposit ratio

Sources: Department of Off-site Supervision, BB.

It refers to the ratio between total outstanding loans and total deposits of bank clusters/banking industry.

3.3 Maturity profile of govt.'s outstanding debt securities (treasury bills, treasury bonds)

Sources: Debt Management Department, BB.

The maturity profile refers to the residual maturity of long-term and short-term debt securities issued by the Government of Bangladesh. Banks' long-term debt includes government Treasury bond with a maturity of more than 12 months. Banks' short-term debt includes government Treasury bill with a maximum maturity of 12 months. Data are based on amounts outstanding at the end of the corresponding year or month.

3.4 Subordinated debt

Sources: Department of Off-site Supervision, BB.

The subordinated debt refers to the debt instruments which will be subordinated to deposits and other liabilities of the bank. It implies that the claims of the subordinated debt holders will be junior to the claims of the depositors and the other creditors.

4. Market risk:

4.1 Equity indices

Sources: Dhaka Stock Exchange Website (http://www.dsebd.org)

The equity indices displayed are DSEX, DSE30 and DSES. DSEX is considered as the benchmark general index of the market as it shows the exact price movement of the listed companies. As for DSE30, 30 companies based on profitability, market capitalization and share size were selected, with the companies changed every six months on the basis of performance. DSES index is launched for people and institutions willing to invest in Shari'ah-compliant securities and products.

4.2 Price/earnings ratio of equity indices

Sources: Dhaka Stock Exchange Website (http://www.dsebd.org).

This ratio refers to the ratio between market price per share and earnings per share. Sectoral P/E ratio includes P/E ratio of Banks, Financial Institutions, Mutual Funds, Engineering, Food & Allied, Fuel & Power, Jute, Textile, Pharmaceuticals, Paper & Printing, Service & Real Estate, Cement, IT, Tannery, Ceramic, Insurance, Telecommunication, Travel and Leisure, Miscellaneous and Market P/E.

4.3 Weighted average call money market rates

Source: Monthly Economic Trends, BB.

The indicators reflect the nature of money market and include rate charged against exposures of scheduled banks and FIs with one another.

4.4 Scheduled banks' weighted average interest rate on deposits and advances

Source: Monthly Economic Trends, BB.

The indicators reflect the condition of scheduled banks and show the difference between average return received from advances and average rate paid on deposits.

4.5 Weighted average exchange rate (BDT/USD)

Source: Monthly Economic Trends, BB.

The indicator reflects the exchange rate movement in BDT per US Dollar.

5. Profitability and solvency risk:

5.1 Banks' profitability indicators

a. Return on equity (ROE)

Source: Department of Off-site Supervision, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio between profit/loss for the period and total equity. End-June ratios are annualised.

b. Return on assets (ROA)

Source: Department of Off-site Supervision, BB; computation: Financial Stability Department, BB.

The indicator is based on ratio between profit/loss for the year and total assets. End-June ratios are annualised.

c. Cost to income ratio

Source: Department of Off-site Supervision, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio between operating expenses and operating income.

d. Net interest income to total operating income ratio

Source: Department of Off-site Supervision, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio between net interest income and total operating income.

5.2 Banks' solvency indicators

a. Tier-1 capital to risk-weighted assets ratio

Source: Department of Off-site Supervision, BB.

The indicator is based on the ratio between Tier-1 capital and total risk-weighted assets.

b. Gross non-performing loan (NPL) ratio

Source: Banking Regulation and Policy Department, BB.

The indicator is based on the ratio between non-performing loans and advances to total outstanding loans and advances.

5.3 FIs' profitability indicators

a. Return on equity (ROE)

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on the ratio between profit/loss after tax and provision for the period and total equity at the end of the corresponding period. End-June ratios are annualised.

b. Return on assets (ROA)

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on ratio between profit/loss after tax and provision for the year and total assets at the end of the corresponding period. End-June ratios are annualised.

c. Cost to income ratio

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on the ratio between FI's operating expenses and operating income.

d. Net interest income to total operating income ratio

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on the ratio between net interest income and total operating income.

5.4 FIs' solvency indicators

a. Tier-1 capital to risk-weighted assets ratio

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on the ratio between Tier-1 capital (core capital) and total risk-weighted assets.

b. Gross non-performing loan (NPL) ratio

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on the ratio between non-performing loans and leases to total loans and leases.

6. Inter-linkages:

6.1 Annual growth rate of banks' credit (gross) to Government

Source: Statistics Department, Bangladesh Bank.

It refers to gross loan amount extended by banks to the Government.

6.2 Annual growth rate of NBDCs' credit (gross) to Government

Source: Statistics Department, Bangladesh Bank.

It refers to gross loan amount extended by NBDCs to the Government sector.

6.3 Annual growth rate of banks' loans to housing sector

Source: Statistics Department, Bangladesh Bank.

Loans to residential housing refers to loans extended by banks for residential housing in urban and rural areas, house renovation/repairing/extension, flat and land purchase; loans to commercial housing refers to loans extended by banks for commercial building and housing by developers/contractors.

6.4 Annual growth rate of FIs' loans to housing sector

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

It refers to loans extended by FIs for both residential and commercial purposes; due to unavailability of data of all NBDCs, FIs' loans to housing sector was used as FIs constitute the majority of the NBDCs.

6.5 Banks' loans to counterpart sector

Source: Statistics Department, Bangladesh Bank.

It refers to loans extended by banks to their three major institutional counterparts namely NFCs (both private and public), households and government; it excludes bills discounted and purchased.

6.6 NBDCs' loans to counterpart sector

It refers to loans extended by NBDCs to their three major institutional counterparts namely NFCs (both private and public), households and government.

6.7 Banks' cross-border claims

Source: Statistics Department, Bangladesh Bank.

Cross-border claims of banks include foreign currency notes in hand, balances with banks abroad, bilateral trade credits, wage earners' balance abroad, foreign bills, foreign direct investments, portfolio investments and advances to non-residents; claims that are granted or extended to non-residents are referred to as cross-border claims on an "immediate borrower" basis i.e. claims allocated to the actual non-resident borrowers with whom the original risk lies; it differs from "ultimate risk" basis which refers

to claims allocated to the non-resident guarantors (of the non-resident borrower) with whom the final risk lies. For more details, see "Guidelines to the international consolidated banking statistics" available at http://www.bis.org/statistics/consbankstatsguide_old.pdf.

6.8 NBDCs' cross-border claims

Source: Statistics Department, Bangladesh Bank.

Cross-border claims of NBDCs include only foreign currency notes in hand.

7. Structural risk:

7.1 Banking sector size

a. Domestic Bank

Source: Department of Off-site Supervision, BB and Monthly Economic Trends, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio of total assets of domestic scheduled banks to nominal GDP; domestic scheduled banks include all scheduled banks except foreign commercial banks.

b. Foreign Bank

Source: Department of Off-site Supervision, BB and Monthly Economic Trends, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio of total assets of foreign commercial banks to nominal GDP.

7.2 Banking sector leverage

Source: Department of Off-site Supervision, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio of total assets of the banking sector over its capital.

7.3 FI sector size

Source: Department of Financial Institutions and Markets, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio of total assets of financial institutions (FIs) to nominal GDP.

7.4 FI sector leverage

Source: Department of Financial Institutions and Markets, BB; computation: Financial Stability Department, BB.

The indicator is based on the ratio of total assets of the FIs sector over its capital.

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