

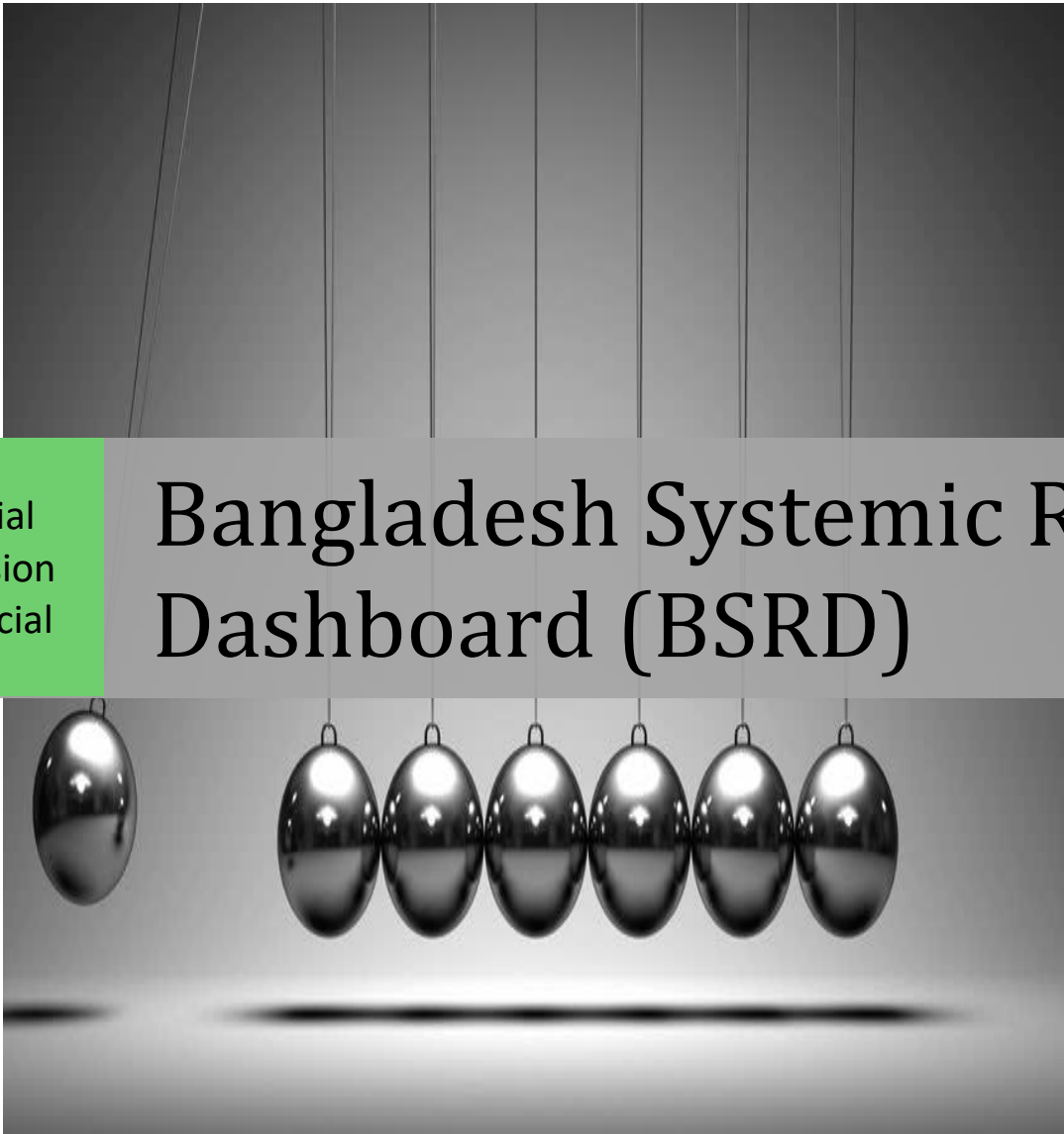
BANGLADESH BANK

Central Bank of Bangladesh



Macro
Prudential
Supervision
of Financial
System

Bangladesh Systemic Risk Dashboard (BSRD)



Financial Stability Department
June 2021

DISCLAIMER: The risk dashboard is a set of quantitative indicators and not an early-warning system. The indicators should not be treated as the basis for any mechanical form of inference.

Bangladesh Systemic Risk Dashboard (BSRD)

June 2021

Advisor

Abu Farah Md. Nasser
Deputy Governor

Coordinator

Mohammad Ahmed Ali
Executive Director

Editor

Sheikh Humayun Kabir
General Manager

Co-editors

1. Abeda Rahim, Deputy General Manager
2. Samiran Das, Joint Director
3. A.S.M. Mehedi Hasan, Joint Director
4. Foyzul Ahmed, Deputy Director
5. Tanjir Ahmed Emon, Deputy Director
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Data Support

1. Banking Regulation and Policy Department
2. Department of Off-site Supervision
3. Department of Financial Institutions and Markets
4. Debt Management Department
5. Statistics Department

-
- This dashboard is based on data and information available as of June, 2021, unless stated otherwise.
 - This dashboard can be accessed through internet at <https://www.bb.org.bd/en/index.php/publication/publicn/1/70>

Table of Contents

| | |
|---|-----------|
| List of acronyms | 3 |
| Bangladesh Systemic Risk Dashboard: An Overview | 4 |
| 1. Macro risk..... | 7 |
| 1.1 Current and forecasted real GDP growth..... | 7 |
| 1.2 Current account balance-to-GDP ratio..... | 7 |
| 1.3 Aggregate debt-to-GDP ratio | 8 |
| 1.4 Government debt-to-GDP ratio..... | 8 |
| 1.5 Government deficit-to-GDP ratio | 9 |
| 1.6 Household debt-to-gross disposable national income ratio | 9 |
| 1.7 Non-financial Corporation (NFC) debt-to-GDP ratio..... | 10 |
| 2. Credit risk..... | 11 |
| 2.1 Annual Growth rate of banks' loans to households..... | 11 |
| 2.2 Annual Growth rate of NBDCs' loans to households | 11 |
| 2.3 Growth of banks' loans to private non-financial corporation (NFC) | 12 |
| 2.4 Growth of NBDCs' loans to private non-financial corporation (NFC)..... | 12 |
| 2.5 Provision maintenance ratio of banks | 13 |
| 2.6 Provision maintenance ratio of FIs | 13 |
| 2.7 Changes in banks' interest rates for housing loans..... | 14 |
| 3. Funding and liquidity risk..... | 15 |
| 3.1 Bangladesh Bank's liquidity support to banks | 15 |
| 3.2 Banks' advance-to-deposit ratio | 15 |
| 3.3 Maturity profile of government's outstanding debt securities..... | 16 |
| 3.4 Subordinated debt | 17 |
| 4. Market risk | 18 |
| 4.1 Equity indices..... | 18 |
| 4.2 Price/earnings (P/E) ratio | 18 |
| 4.3 Weighted average call money market rates | 19 |
| 4.4 Scheduled banks' weighted average interest rate on deposits and advances..... | 19 |
| 4.5 Weighted average exchange rate (BDT/USD)..... | 20 |

| | |
|---|-----------|
| 5. Profitability and solvency risk | 21 |
| 5.1 Banks' profitability indicators | 21 |
| 5.2 Banks' solvency indicators | 22 |
| 5.3 FIs' profitability indicators | 23 |
| 5.4 FIs' solvency indicators..... | 24 |
| 6. Inter-linkages..... | 25 |
| 6.1 Growth of banks' credit (gross) to government..... | 25 |
| 6.2 Growth of NBDCs' credit (gross) to government | 25 |
| 6.3 Growth of banks' loans to housing sector | 26 |
| 6.4 Growth of FIs' loans to housing sector..... | 26 |
| 6.5 Banks' loans to counterpart sectors | 27 |
| 6.6 NBDCs' loans to counterpart sectors | 27 |
| 6.7 Banks' cross-border claims | 28 |
| 7. Structural Risk..... | 29 |
| 7.1 Banking sector size | 29 |
| 7.2 Banking sector leverage | 30 |
| 7.3 Financial institutions (FIs) sector size | 30 |
| 7.4 Financial institutions (FIs) sector leverage | 31 |
| Annex to Bangladesh Systemic Risk Dashboard..... | 32 |

List of acronyms

| | |
|-----------|--|
| ADR | Advance-to-Deposit Ratio |
| BB | Bangladesh Bank |
| BRPD | Banking Regulation and Policy Department |
| 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 |
| 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 |
| PD | Primary Dealer |
| 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

In the fiscal year 2020-21(FY21), real GDP growth rate was recorded at 5.47 percent (indicator 1.1) which was 3.51 percent in FY20. Current account balance-to-GDP ratio (indicator 1.2) turned into negative territory during first half of 2021, mainly due to significant increase in import-payment obligations because of lower impact of the COVID-19 pandemic on foreign trade compared to the previous year that ultimately widened the trade deficit.

Aggregate debt-to-GDP ratio (indicator 1.3) increased slightly in FY21 compared to that of FY20, though nonfinancial corporation (NFC) and household debt, as percentage of GDP, decreased marginally during the period. Government debt-to-GDP ratio (indicator 1.4) and deficit-to-GDP ratio (indicator 1.5) increased 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 2021 compared to the second half of 2020; it also recorded a decrease compared to the corresponding period of 2020. A similar trend was observed in Non-Financial Corporation (NFC) debt-to-GDP ratio (indicator 1.7) during the review period.

2. Credit risk

Credit growth to households by banks (indicator 2.1) recorded a sharp increase at the end-June 2021 compared to the preceding period. However, credit growth to households by non-bank depository corporations (NBDCs) (indicator 2.2) remained negative in the same period, though it improved a bit compared to the preceding period. Credit growth to private NFCs by banks (indicator 2.3) decreased while the same by NBDCs (indicator 2.4) increased little bit and turned positive at the end of June 2021 compared to the positions of the preceding period.

At the end of June 2021, provision maintenance ratio (indicator 2.5) of banks recorded a considerable decrease and reached at 92 percent while provision maintenance ratio of financial institutions (FIs)¹ (indicator 2.6) registered a moderate increase compared to those of end-December 2020.

In terms of changes in banks' interest rates for housing loans (indicator 2.7) a net easing was observed; 9.4 percent of banks eased the interest rate of housing loans while no bank tightened the same at the end of June 2021.

3. Funding and liquidity risk

During the reviewed period, no bank availed any liquidity support from Bangladesh Bank in the form of repo, special repo and assured liquidity support (indicator 3.1). Led by a high advance-to-deposit ratio (ADR) of domestic private commercial banks (PCBs), ADR of the banking industry (indicator 3.2) increased at end-June 2021 compared to that of end-December 2020.

¹In 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 remaining maturity up to 10 years (three categories) increased while the bonds with remaining maturity over 10 years (two categories) decreased at end-June 2021 compared to those of end-December 2020. Investment in Treasury bills (T-bills) with remaining maturities up to 91 days decreased moderately while T-bills with remaining maturities over 91 days and up to 182 days decreased a bit and T-bills with remaining maturities more than 182 days increased narrowly in the first half of 2021 compared to the second half of 2020. Subordinated debt (indicator 3.4), as a source of funding for banks, recorded an increasing trend since 2016, however, it decreased slightly at the end-June 2021 compared to the position at the end-December 2020.

4. Market risk

Major equity indices (indicator 4.1) increased significantly at the end-June 2021 compared to the positions of preceding two periods. Market price/earnings (P/E) ratio (indicator 4.2) increased during the reviewed period compared to that of the preceding period.

Average call money market rate (indicator 4.3) increased slightly during the first half of 2021 compared to the position of December 2020 while scheduled banks' weighted average interest rates on both deposits and advances (indicator 4.4) decreased during the same period, however, their spread increased slightly at end-June 2021. Besides, weighted average exchange rate of BDT against USD (indicator 4.5) depreciated slightly at end-June 2021.

5. Profitability and solvency risk

Banks' profitability, measured by return on equity (ROE) and return on asset (ROA) (indicators 5.1a and 5.1b) increased sharply during January-June 2021 period compared to the positions of December 2020. 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 2021, banks' Tier-1 capital to risk weighted assets ratio (indicator 5.2a) increased compared to that of end-December 2020 and remained well above the regulatory requirement of 6.0 percent. Banks' gross non-performing loan (NPL) ratio (indicator 5.2b) increased slightly at the end of the reviewed period.

FIs' profitability, measured by ROE and ROA (indicators 5.3a and 5.3b), decreased considerably during January-June 2021 and turned into negative. Both cost-to-income ratio (indicator 5.3c) and net interest income to total operating income ratio (indicator 5.3d) of FIs registered a decrease during the first half of 2021 from that of the second half of 2020.

FIs' Tier-1 capital to total risk-weighted assets ratio (indicator 5.4a) declined slightly at the end-June 2021 compared to December 2020 and June 2020; however, it remained well above the minimum regulatory requirement. In the same period, gross NPL ratio of FIs (indicator 5.4b) increased marginally compared to end-December 2020 position and increased moderately from the position of end-June 2020.

6. Inter-linkages

Banks' credit growth to the government (indicator 6.1) decreased moderately at end-June 2021 compared to both end-December 2020 and end-June 2020. Government borrowing from NBDCs (indicator 6.2), albeit remaining very low, witnessed a negative growth at the end-June 2021.

Banks' loan growth to both residential and commercial housing sector (indicator 6.3a and 6.3b) decreased at the end-June 2021 compared to the preceding period. Growth of FIs' loans to housing sector (indicator 6.4) showed a gradually decreasing trend since June 2019 and remained negative at the end-June 2021.

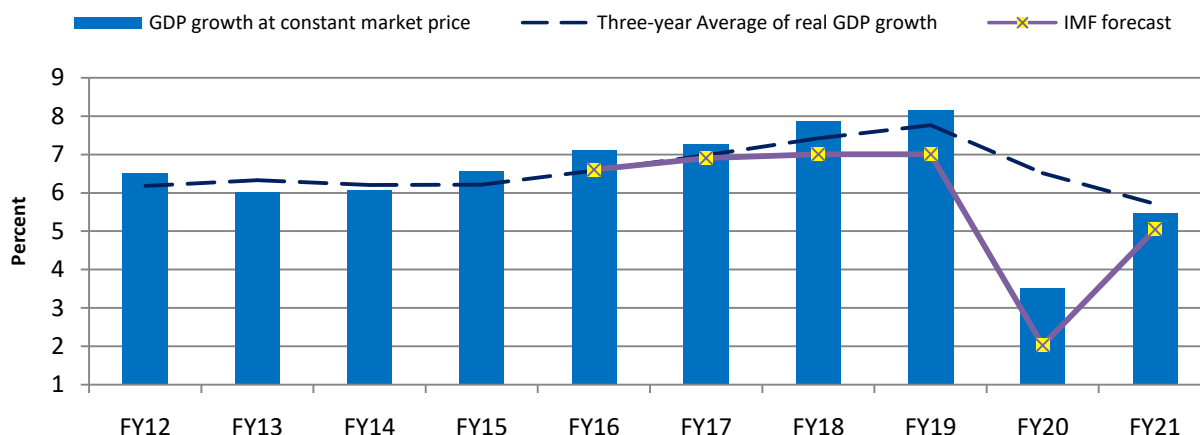
An increasing trend was observed in banks' credit exposure to its major public and private counterparts (indicator 6.5), in which NFCs accounted for the major share. NBDCs' credit exposure to its major counterparts, with a very negligible exposure to government, also marked a minor increase (indicator 6.6) at the end-June 2021. Banks' cross-border claims (indicator 6.7) recorded a very minor decrease and remained less than one percent of banks' total assets at the end-June 2021. It is mentionable that NBDCs had no cross-border claims since December 2018.

7. Structural Risk

Aggregate assets of both domestic banks (indicator 7.1a) and foreign banks (indicator 7.1b), as a percentage of nominal GDP, decreased at end-June 2021 compared to those of end-December 2020. An overall declining trend was also observed in FIs' aggregate assets to nominal GDP ratio (indicator 7.3) since December 2017. Total asset-to-capital (leverage) ratio of banks (indicators 7.2) demonstrated an upward trend over the last few years, though in the reviewed period it decreased a little bit compared to the preceding period. Leverage ratio of FIs (indicators 7.4) increased continuously since December 2019.

1. Macro risk

1.1 Current and forecasted real GDP growth

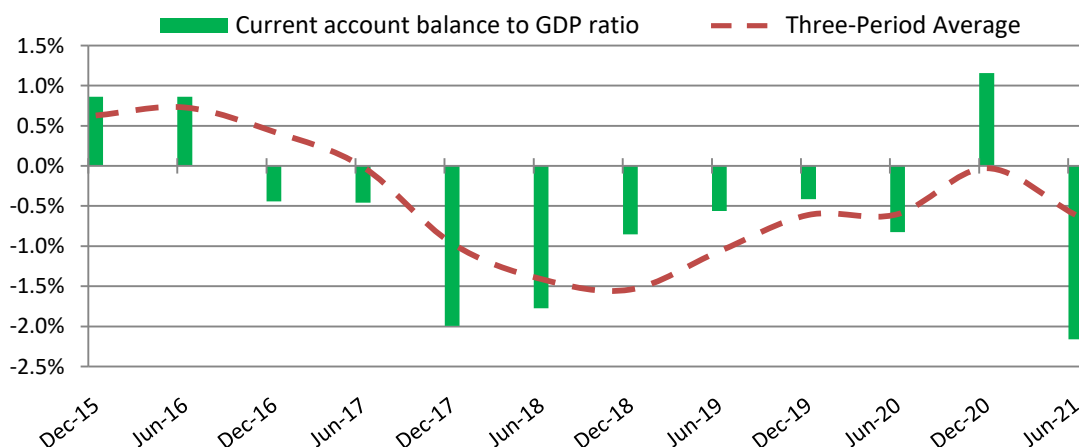


Source: Monthly Economic Trends, BB;IMF's World Economic Outlook Database, April, 2021.

Notes: As half yearly GDP is not calculated in Bangladesh, GDP growth is shown for only fiscal years.

Real GDP growth increased in FY21 compared to the previous fiscal year as businesses and productions were resuming gradually to their normal states, in contrary to the COVID-19 pandemic induced slowdown in economic activities in 2020. However, the growth surpassed the IMF forecast for both FY20 and FY21.

1.2 Current account balance-to-GDP ratio



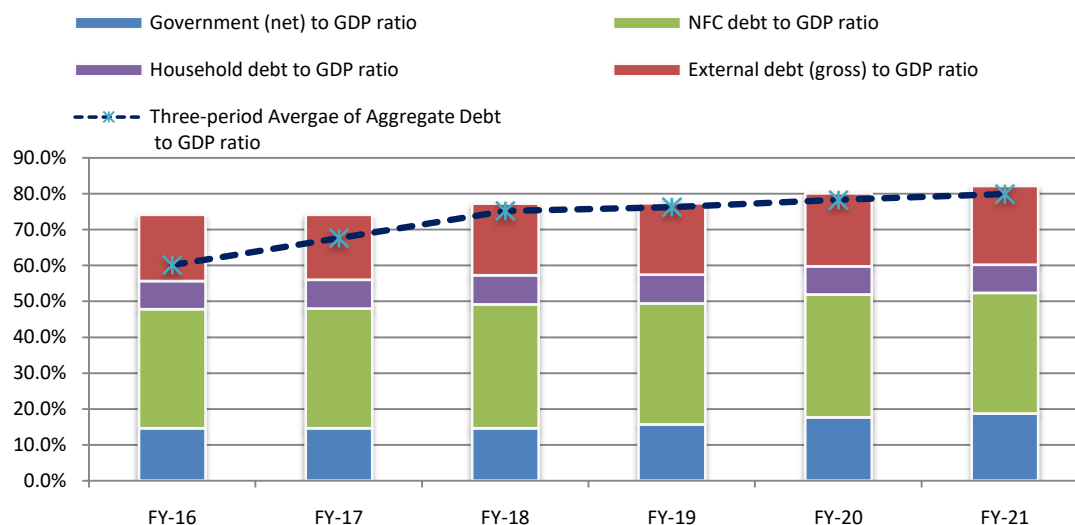
Source: Monthly Economic Trends, BB. Data of June, 2021 is provisional value.

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 turned into negative territory during first half of 2021, mainly due to significant increase in import-payment obligations in the outgoing fiscal year because of lower impact of the COVID-19 pandemic on foreign trade compared to the previous year.

1. Macro risk-Cont'd.

1.3 Aggregate debt-to-GDP ratio



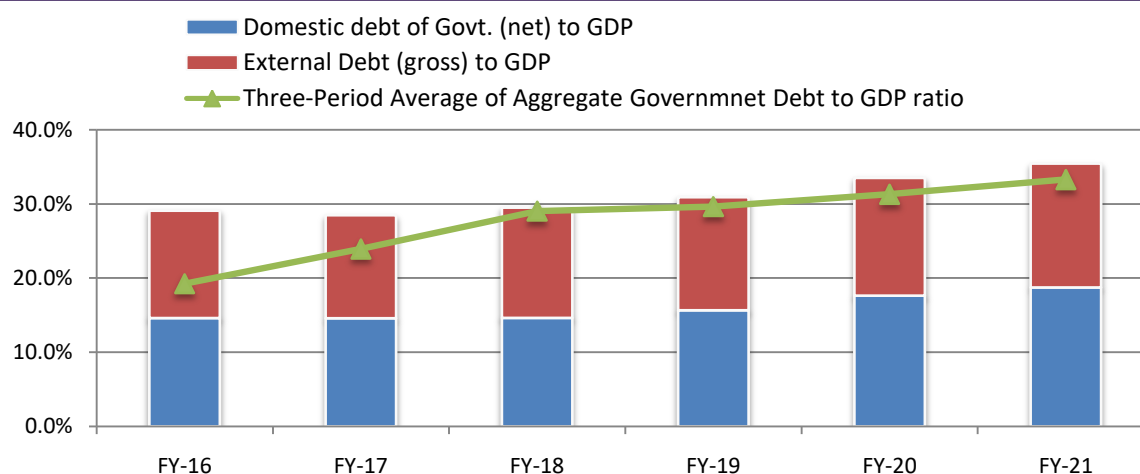
Sources: Monthly Economic Trends, BB and National Summary Data Page (NSDP), BB.

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.

Aggregate debt-to-GDP ratio recorded a slight increase in FY21 compared to that of FY20. Debts of non-financial corporation remained the major constituent of aggregate debt.

1.4 Government debt-to-GDP ratio



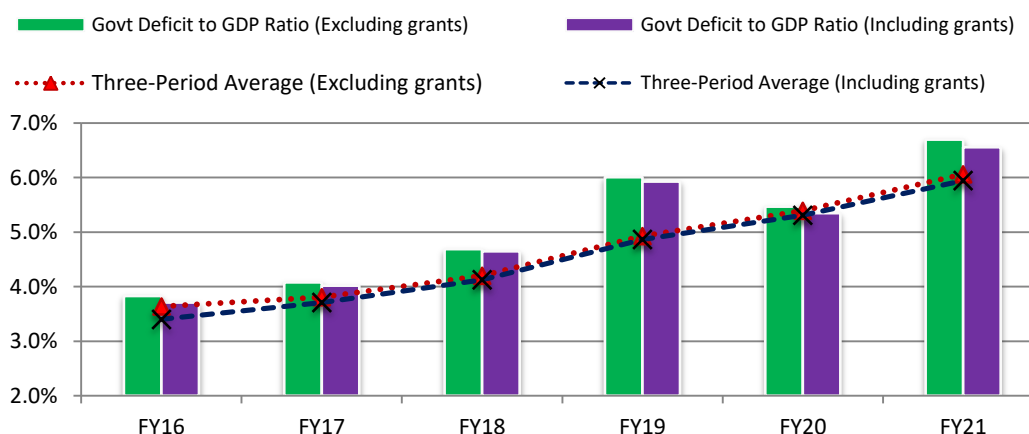
Source: Monthly Economic Trends, BB and National Summary Data Page (NSDP), BB.

Notes: Because of unavailability of half yearly data of GDP, government debt-to-GDP ratio is shown only for fiscal years.

Government debt-to-GDP ratio increased slightly in FY21 compared to that of FY20 due to increase in both the government's borrowing from the domestic and the external sources.

1. Macro risk-Cont'd.

1.5 Government deficit-to-GDP ratio

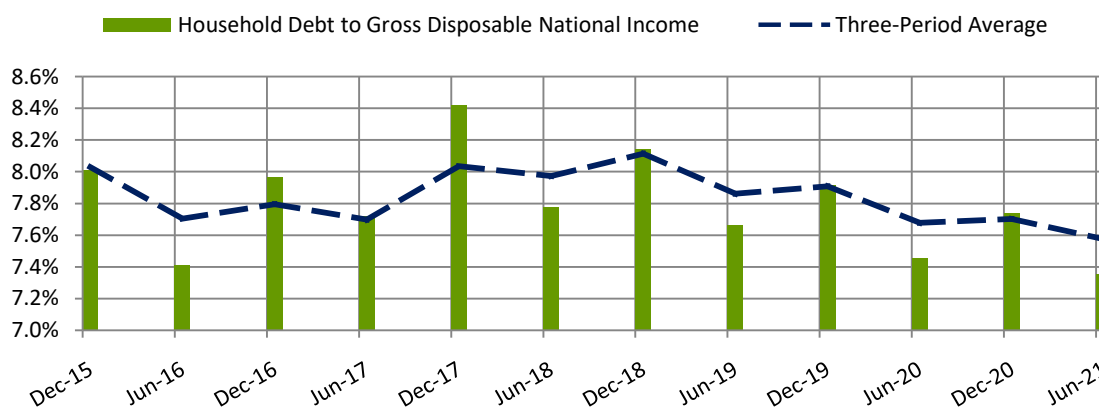


Source: Monthly Report on Fiscal Position, Ministry of Finance, Government of Bangladesh.

Notes: Because of unavailability of half yearly data of GDP, government deficit-to-GDP ratio is shown for fiscal years only.

Government deficit-to-GDP ratio, both including and excluding grants, increased in FY21 compared to the preceding fiscal year.

1.6 Household debt-to-gross disposable national income ratio



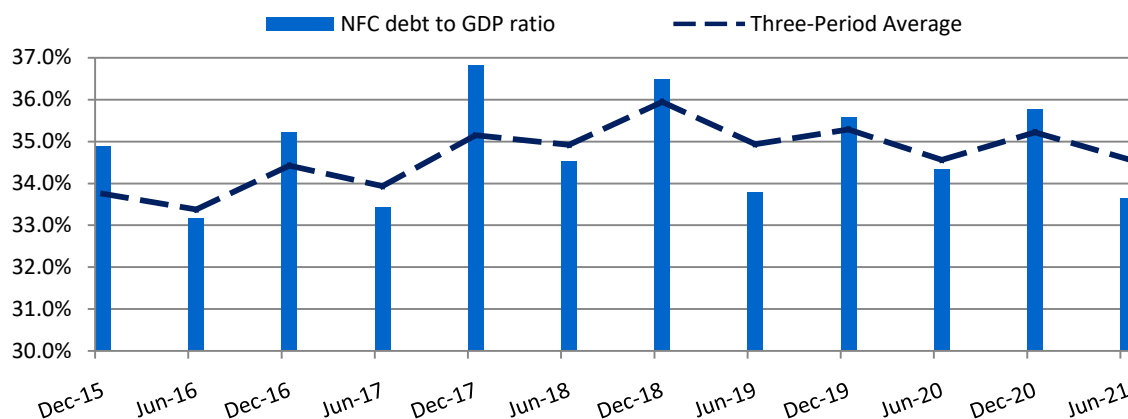
Sources: Monthly Economic Trends, BB.

Notes: 1) June 2021 based data is provisional. 2) As half yearly gross disposable national income is not calculated in Bangladesh, June based data of gross disposable national income is used as a proxy for December in calculating household debt-to-gross disposable national income ratio.

Household debt-to-gross disposable national income decreased in June 2021 compared to December 2020. The ratio also slightly decreased compared to the end-June 2020.

1. Macro risk-Cont'd.

1.7 Non-financial Corporation (NFC) debt-to-GDP ratio



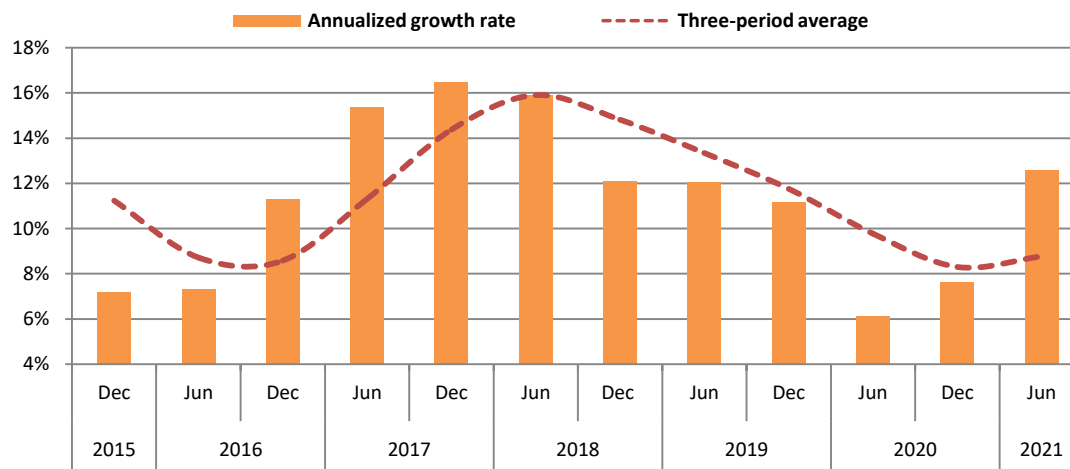
Sources: Monthly Economic Trends, BB.

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 2021 compared to December 2020 position. The ratio also slightly decreased compared to end-June 2020. Here it is noteworthy that private NFCs' debt comprises major portion of aggregate NFCs' debt.

2. Credit risk

2.1 Annual Growth rate of banks' loans to households

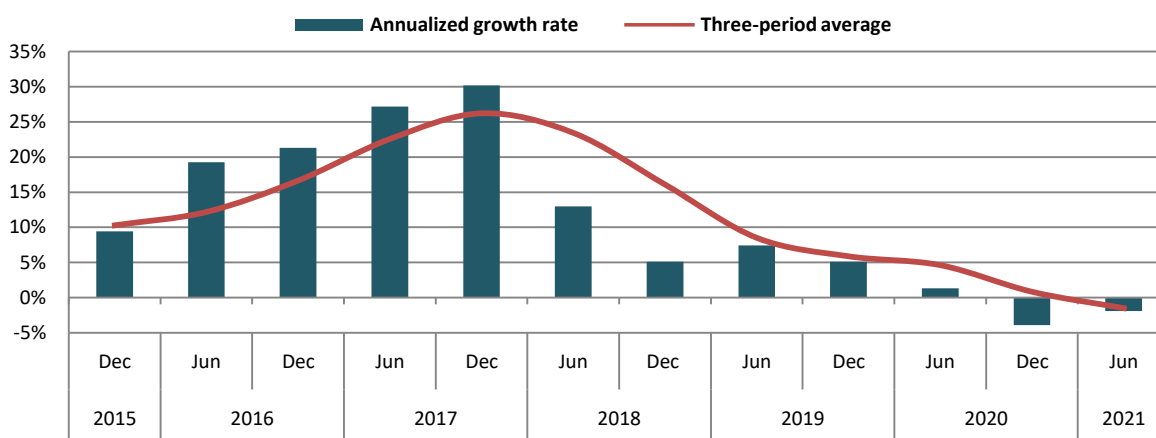


Source: Statistics Department, BB.

Notes: Loans refer to outstanding loans and advances extended to domestic households (individuals) excluding bills.

In contrast with an overall downward trend in banks' credit growth to household sector since December 2017, a steady growth was recorded between end-to-end of June 2020 and 2021.

2.2 Annual Growth rate of NBDCs' loans to households



Source: Statistics Department, BB.

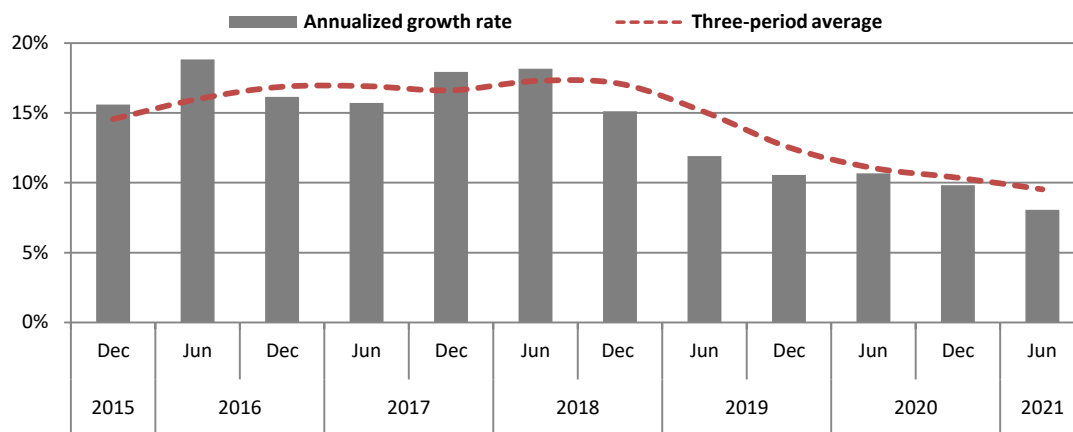
Notes: NBDCs include deposit taking FIs², Ansar-VDP Unnayan Bank, Karmasangsthan Bank, Grameen Bank and Bangladesh Samabaya Bank.

Non-bank depository corporations' (NBDC) loan growth to household sector showed a downward trend since December 2017. The growth declined further at end-December 2020 and turned into negative. It improved a bit at the end of June 2021 compared to that of end-December 2020, however, still remained in the negative territory.

²FIs 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)

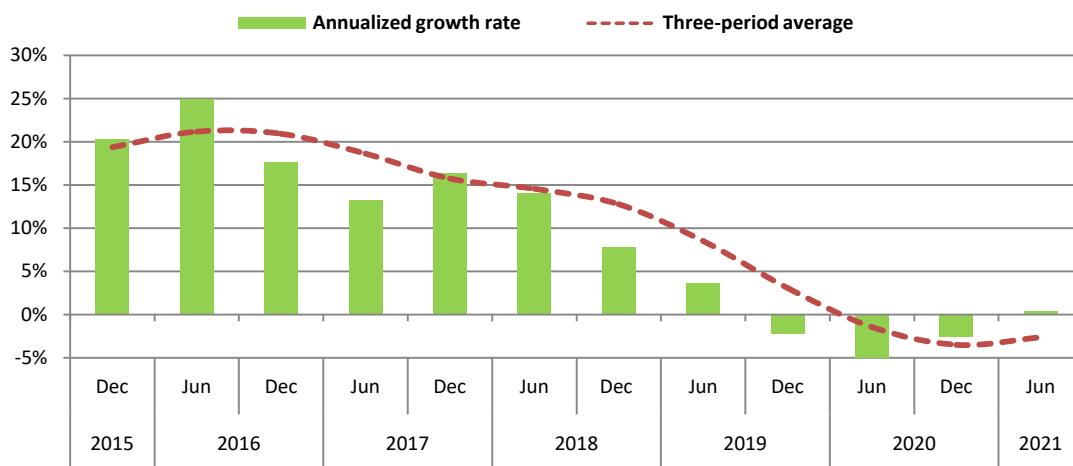


Source: Statistics Department, BB.

Notes: Loans refer to outstanding loans and advances extended to private NFCs excluding bills.

An overall downward trend in growth of private NFCs' loans was observed since June 2018. Loan growth recorded further slowdown at end-June 2021 compared to that of the preceding period.

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



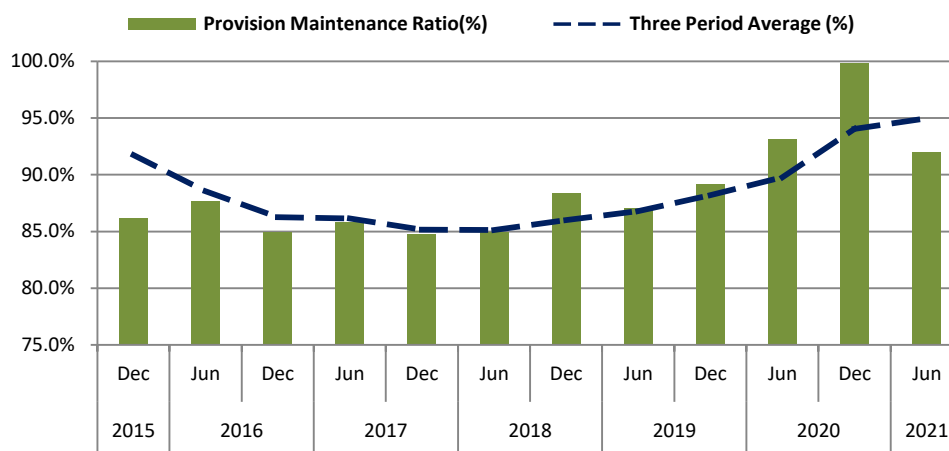
Source: Statistics Department, BB.

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 showed downward trend since the end-December 2016 and turned into negative at the end-December 2019 which continued up to the end-December 2020. However, at the end-June 2021 it improved slightly and marked in the positive territory.

2. Credit risk-Cont'd.

2.5 Provision maintenance ratio of banks

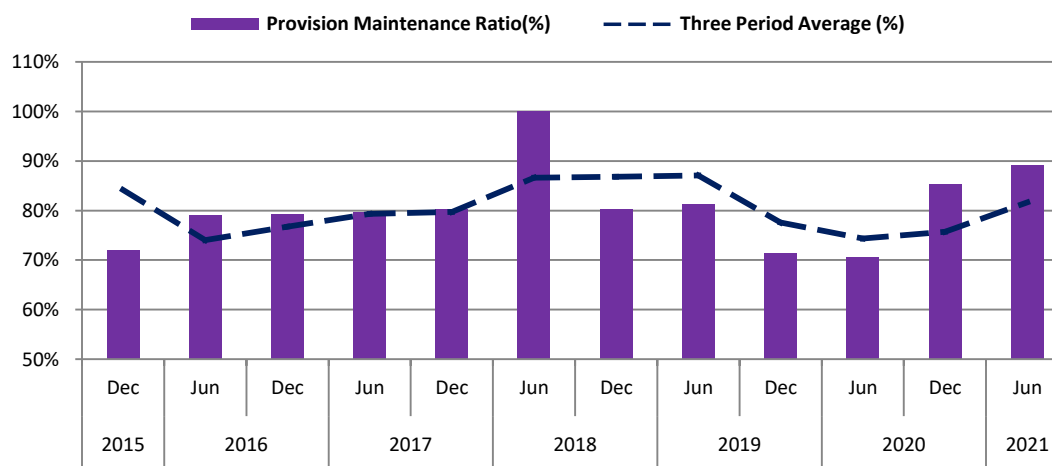


Source: BRPD, BB.

Notes: Provision maintenance ratio refers to maintained provision as a percentage of required provision.

Banks' provision maintenance ratio recorded a decrease at end-June 2021 compared to that of both end-December 2020 and end-June 2020.

2.6 Provision maintenance ratio of FIs



Source: DFIM, BB.

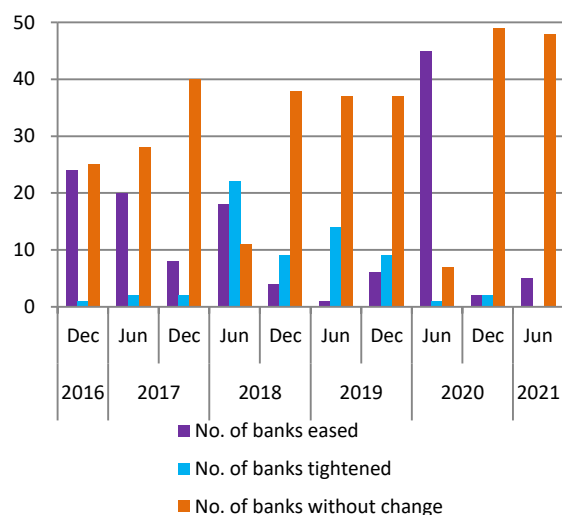
Notes: Due to NBDCs' data unavailability, data of FIs were used which include both deposit takers and non-deposit takers. Data for June 2021 is provisional.

FIs' provision maintenance ratio witnessed a moderate increase at the end-June 2021 from that of end-December 2020 and end-June 2020.

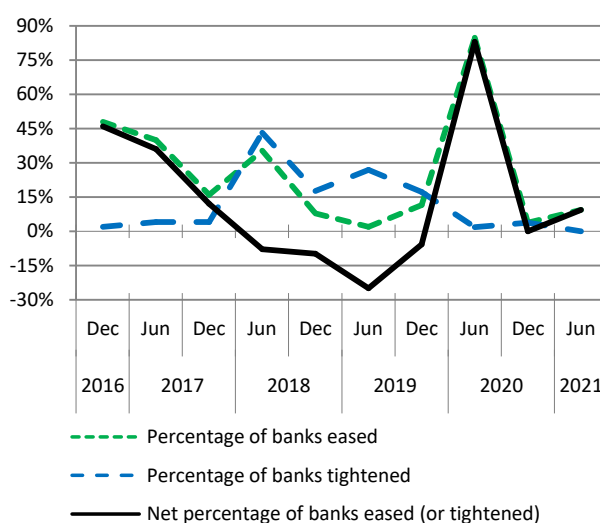
2. Credit risk–Cont'd.

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



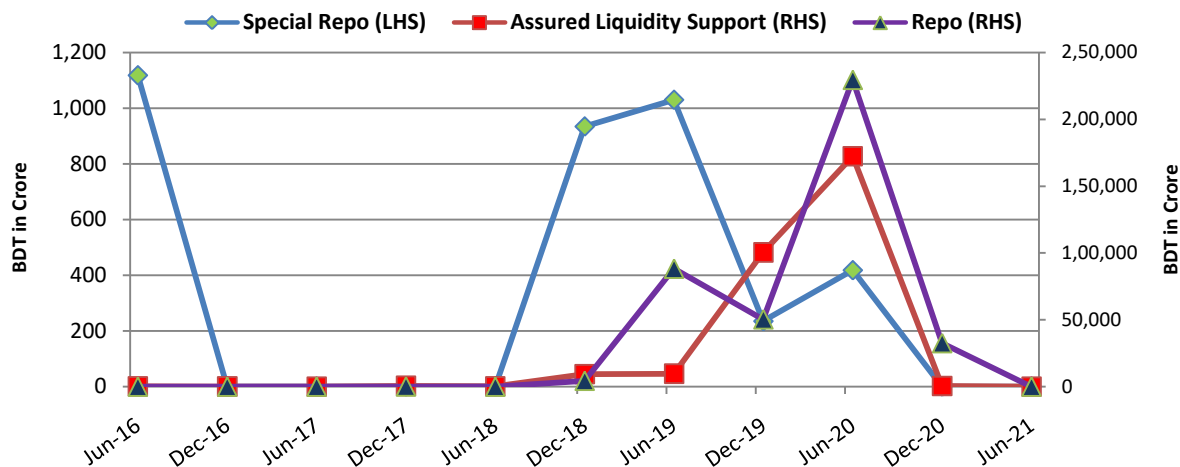
Source: Scheduled bank lending rate, Bangladesh Bank website (<https://www.bb.org.bd/fnansys/interestlending.php>).

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 June 2021, 9.4 percent banks eased the interest rates of housing loans while no bank tightened the same; the remaining banks kept their rates unchanged during the same period. Hence, after netting off, a net easing was observed during this period.

3. Funding and liquidity risk

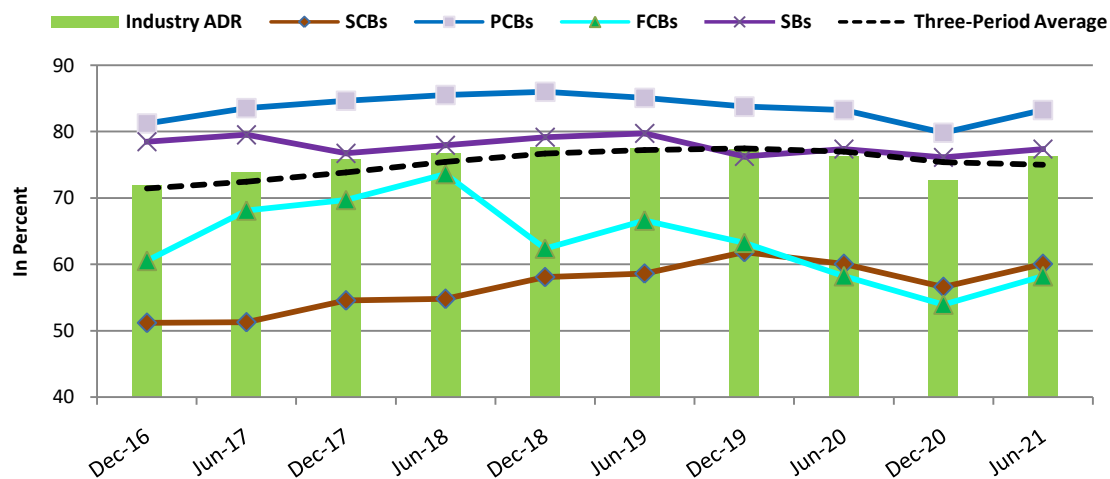
3.1 Bangladesh Bank's liquidity support to banks



Source: DMD, BB.

Assured liquidity support, special repo and repo to banks decreased significantly during the second half of 2020 and during first half of 2021 no bank availed any funding support under these three facilities.

3.2 Banks' advance-to-deposit ratio



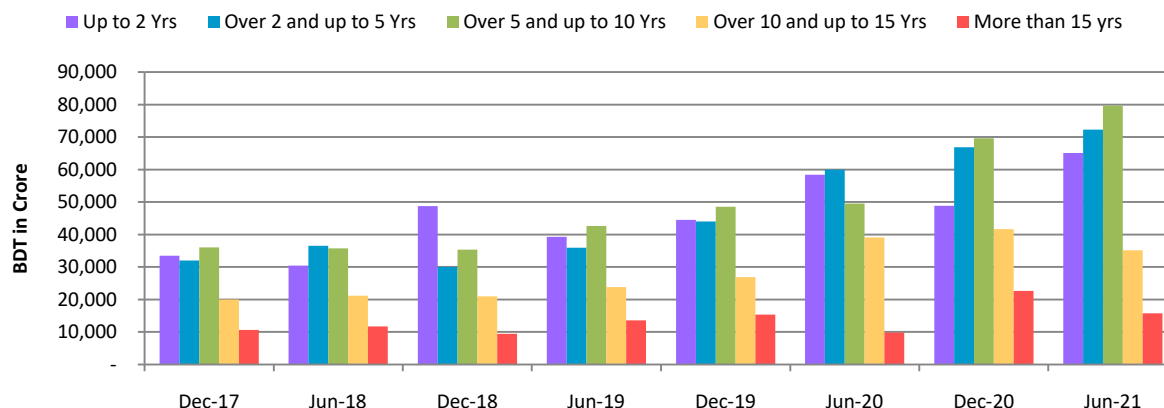
Source: DOS, BB.

To the contrary of a downward move in December 2020 due to COVID-19 pandemic, in June 2021 the industry advance-to-deposit ratio (ADR) regained the position where it was in June 2020. ADRs of PCBs and SBs were higher than the industry average whereas ADRs of FCBs and SCBs were significantly lower.

3. Funding and liquidity risk-cont'd.

3.3 Maturity profile of government's outstanding debt securities

a. Treasury Bond

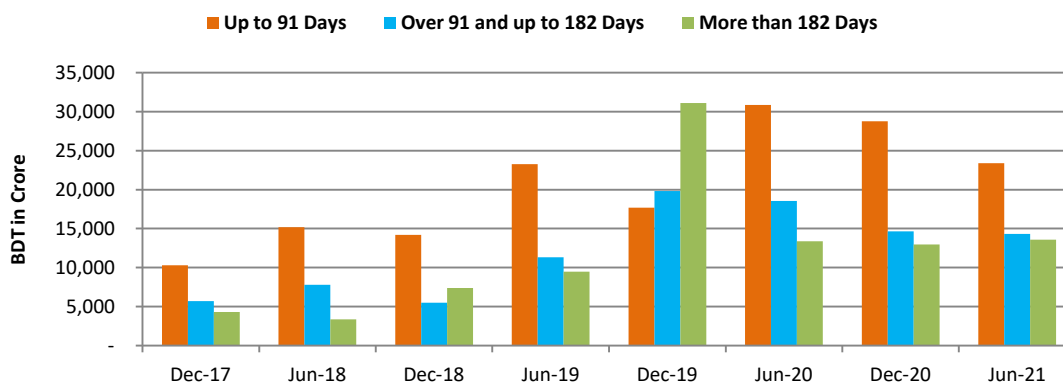


Source: DMD, BB.

Notes: The maturity profile refers to the residual maturity of long-term and short-term debt securities issued by Government of Bangladesh. 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 remaining maturity over 5 and up to 10 years remained the largest in terms of volume whereas the ones with remaining maturity of more than 15 years remained the smallest at end-June 2021. Three types of treasury bonds with remaining maturity up to 10 years increased while rest of the two types bonds with remaining maturity over 10 years decreased in June 2021 compared to the position of December 2020. Besides, there were also special purpose treasury bonds (SPTB) of different maturities amounting to BDT 7064.34 crore as of the end-June 2021.

b. Treasury Bill



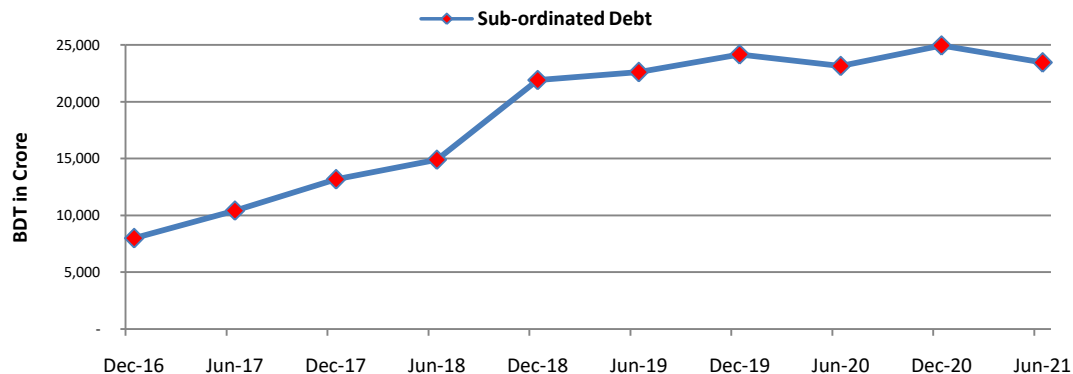
Source: DMD, BB.

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.

Bank's investment in treasury bills with remaining maturities up to 91 days decreased while investment in Treasury bills (T-bills) with remaining maturities up to 91 days decreased moderately while T-bills with remaining maturities over 91 days and up to 182 days decreased a bit and T-bills with remaining maturities more than 182 days increased narrowly in the first half of 2021 compared to the second half of 2020.

3. Funding and liquidity risk-cont'd.

3.4 Subordinated debt



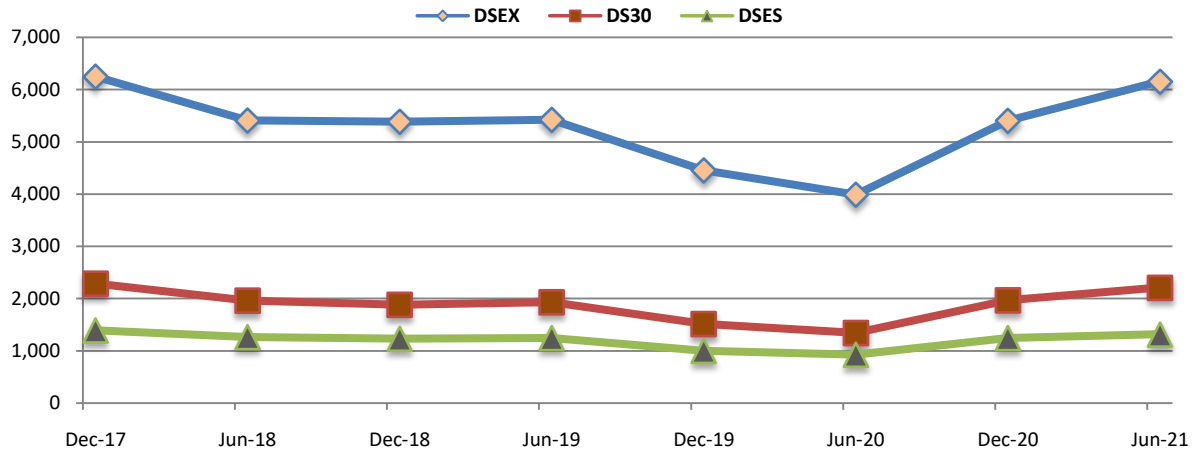
Source: DOS, BB.

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

Subordinated debt, issued by banks, recorded an increasing trend since 2016. However, it decreased slightly in June 2021 compared to December 2020.

4. Market risk

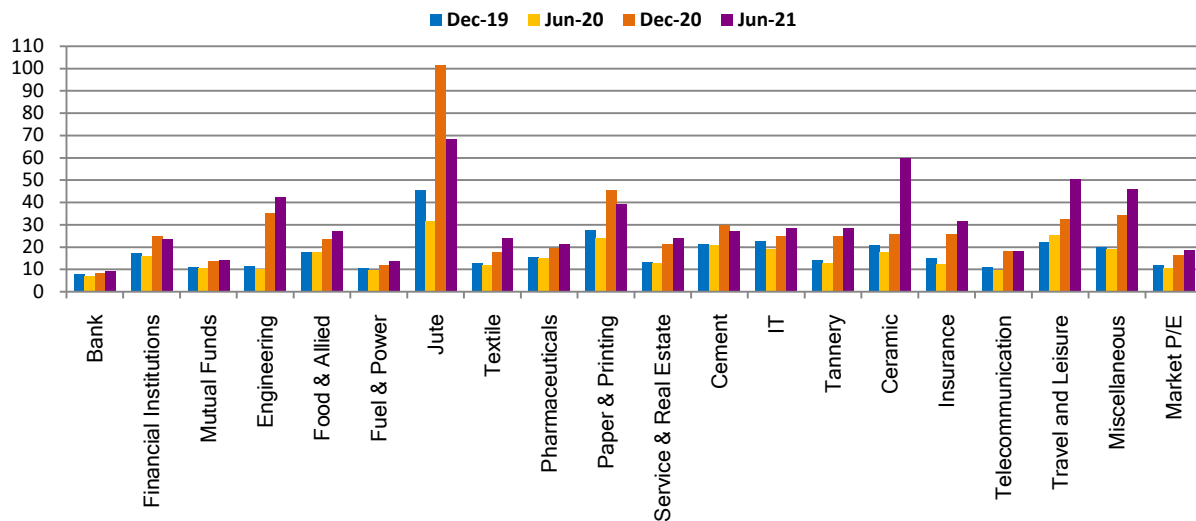
4.1 Equity indices



Source: DSE Website.

DSEX, the major DSE index, recorded an increasing trend since June 2020. It increased significantly at end-June 2021 compared to the position of end-December 2020. Following the same pattern, other equity indices DS30 and DSES also increased in the review period.

4.2 Price/earnings (P/E) ratio

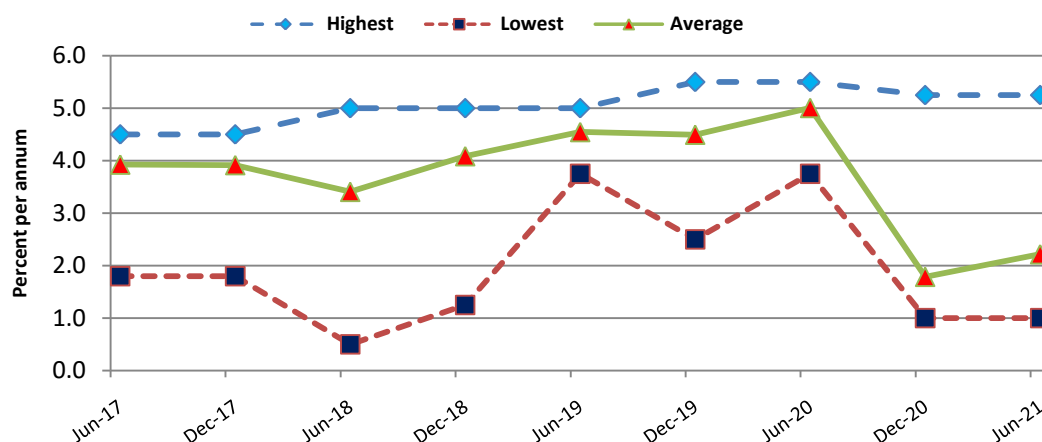


Source: DSE Website.

P/E ratio of almost all listed sectors except few increased at end-June 2021 compared to end-December 2020. Market P/E ratio also maintained the same trend and stood at 18.50 at end-June 2021, which was 16.53 at end-December 2020 and 10.78 at end-June 2020.

4. Market risk-cont'd.

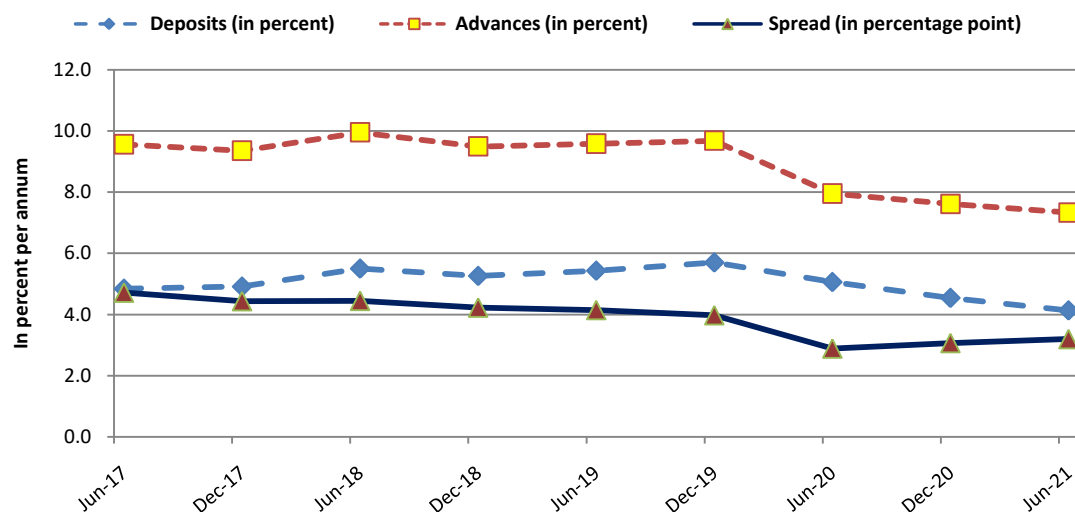
4.3 Weighted average call money market rates



Source: Monthly Economic Trends, BB.

Weighted average call money borrowing rate increased slightly at end-June 2021 compare to that of end-December 2020. It is noteworthy that there was a significant fall in that rate during second half of 2020.

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

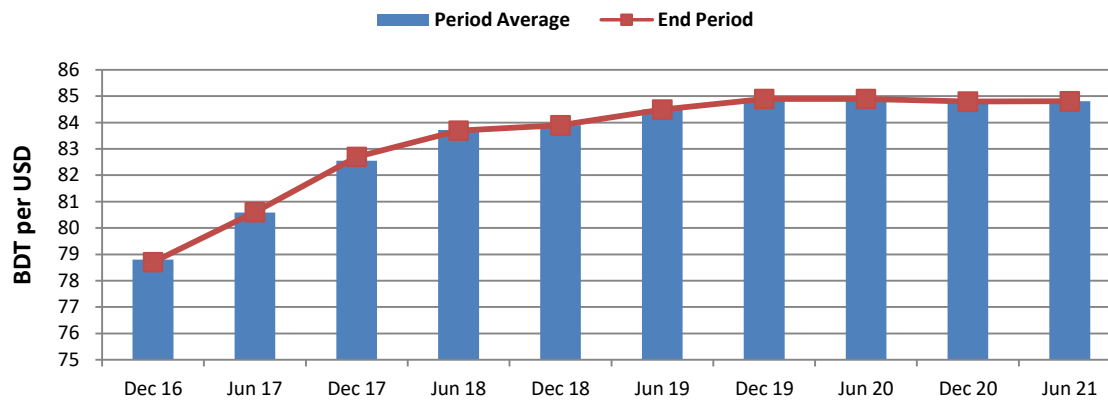


Source: Monthly Economic Trends, BB.

Weighted average interest rate on advances and deposits recorded declining trends since December 2019. However, the spread increased by 18 and 13 basis points respectively during second half of 2020 and first half of 2021.

4. Market risk–cont'd.

4.5 Weighted average exchange rate (BDT/USD)



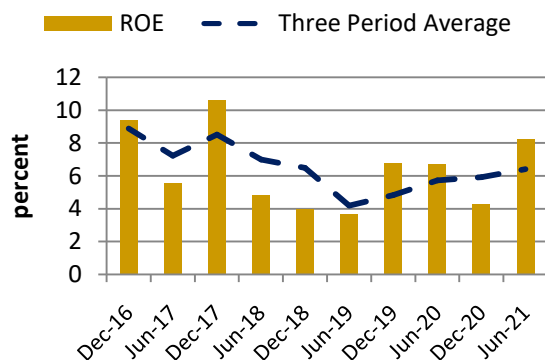
Source: Monthly Economic Trends, BB.

The value of BDT against USD depicted a stable trend since second half of 2019. However, BDT depreciated very slightly against USD at end-June 2021 compared to the position of end-December 2020.

5. Profitability and solvency risk

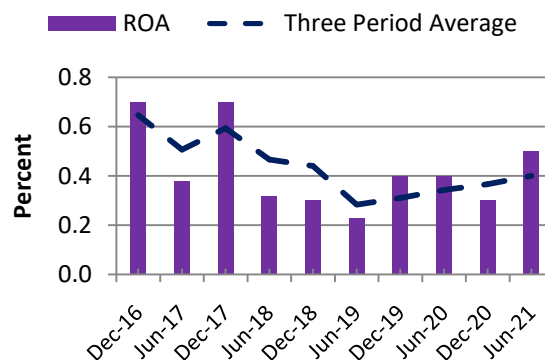
5.1 Banks' profitability indicators

a. Return on equity (ROE)



Source: DOS, BB; Computation: FSD, BB.
Note: Ratios of June period are annualized.

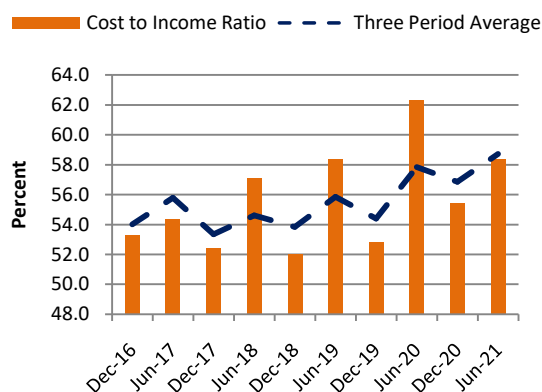
b. Return on assets (ROA)



Source: DOS, BB; Computation: FSD, BB.
Note: Ratios of June period are annualized.

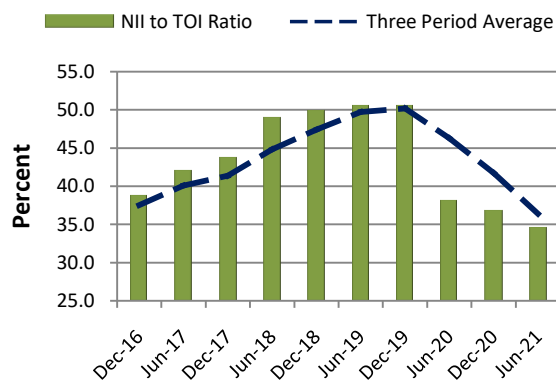
Both ROE and ROA of banks showed an increase during the first half of 2021 compared to the position of second half of 2020.

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



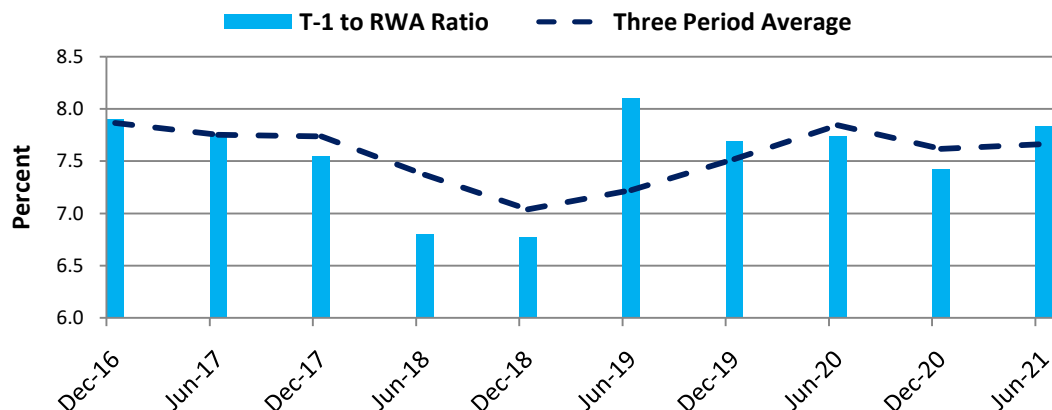
Source: DOS, BB; Computation: FSD, BB.
Note: Ratio between net interest income and total income.

Compared to the position of July-December 2020, banks' cost-to-income ratio increased during January-June 2021. 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

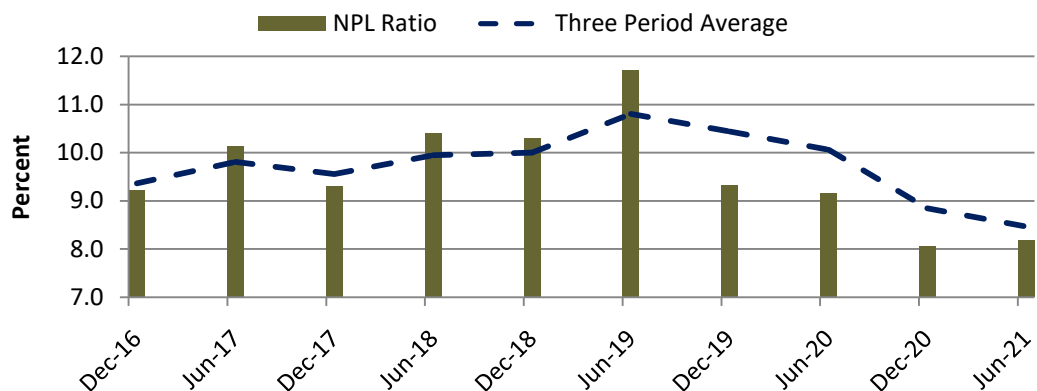


Source: DOS, BB.

Note: Ratio of Tier-1 capital to total risk-weighted assets.

Banks' Tier-1 capital ratio increased in June 2021 from the position of December 2020 and remained well above the regulatory requirement of 6.0 percent.

b. Gross non-performing loan (NPL) ratio



Source: BRPD, BB.

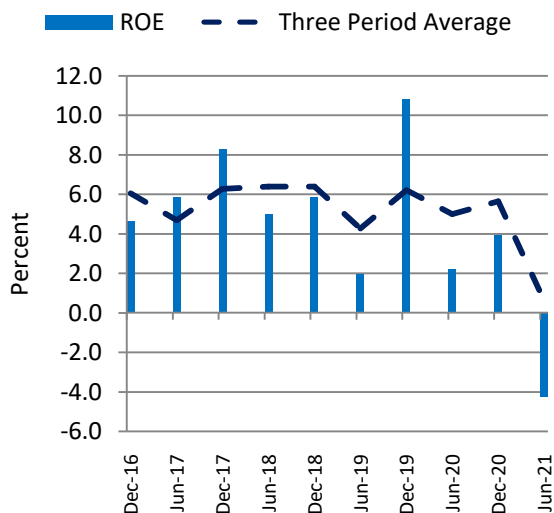
Note: Ratio of total non-performing loans & advances to total loans & advances.

Since the second half of 2019 the gross NPL ratio came down to the single digit. Though, it increased very slightly at end-June 2021 compared to the preceding period and stood at 8.18 percent.

5. Profitability and solvency risk-cont'd.

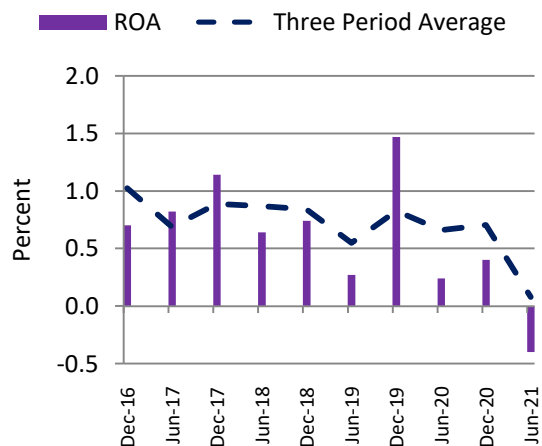
5.3 FIs' profitability indicators

a. Return on equity (ROE)



Source: DFIM, BB.
Note: Data for June 2021 is provisional.

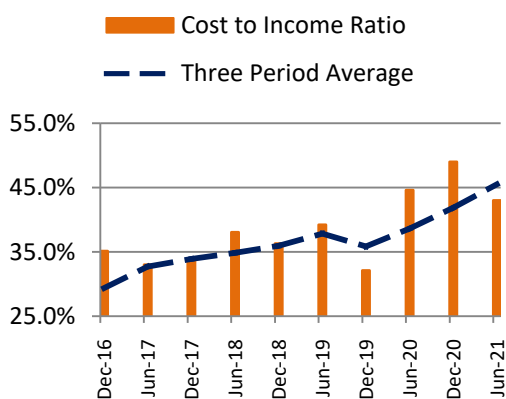
b. Return on assets (ROA)



Source: DFIM, BB.
Note: Data for June 2021 is provisional.

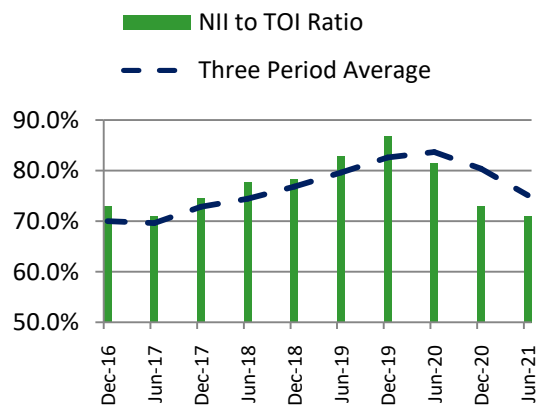
FIs' ROE and ROA decreased significantly during January-June 2021 compared to July-December 2020 and marked in the negative territory.

c. Cost-to-income ratio



Source: DFIM, BB.
Note: Cost to income ratio refers to ratio between operating expenses and total income. Data for June 2021 is provisional.

d. Net interest income to total operating income ratio



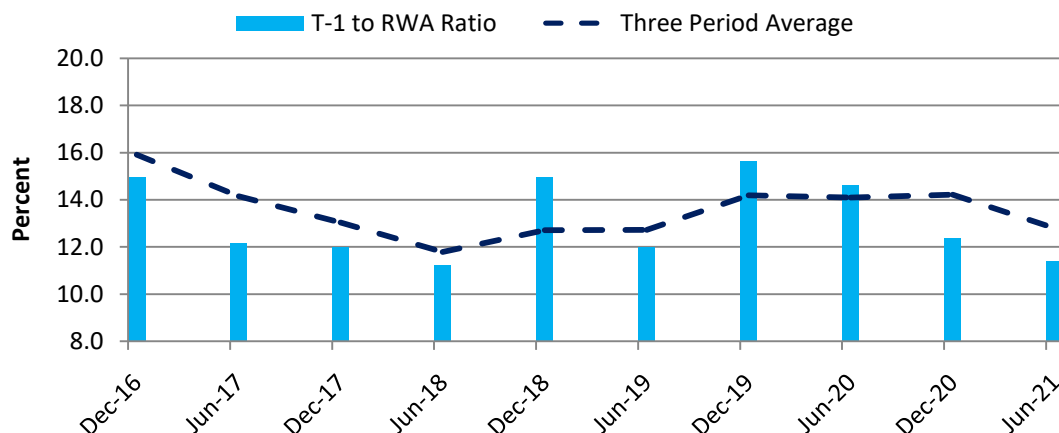
Source: DFIM, BB.
Note: Ratio between net interest income and total income.

FIs' cost-to-income ratio and net interest income to total operating income ratio decreased at end-June 2021 compared to that of the previous period.

5. Profitability and solvency risk-cont'd.

5.4 FIs' solvency indicators

a. Tier-1 to RWA ratio

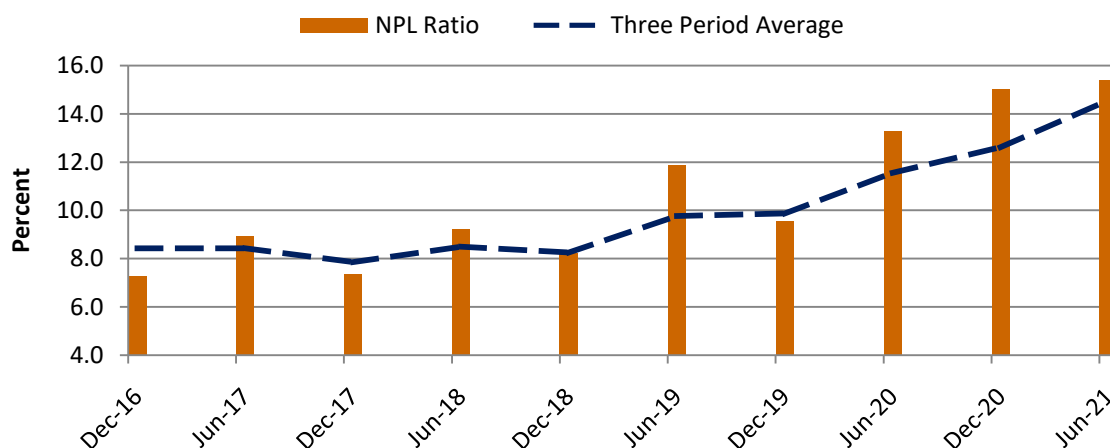


Source: DFIM, BB.

Note: Ratio of Tier-1 (core) capital to total risk-weighted assets. Data for June 2021 is provisional.

Though FIs' Tier-1 to RWA ratio was declining gradually from December 2019, however, it was well above the regulatory requirement of 5.0 percent at the end-June 2021.

b. Gross non-performing loan (NPL) ratio



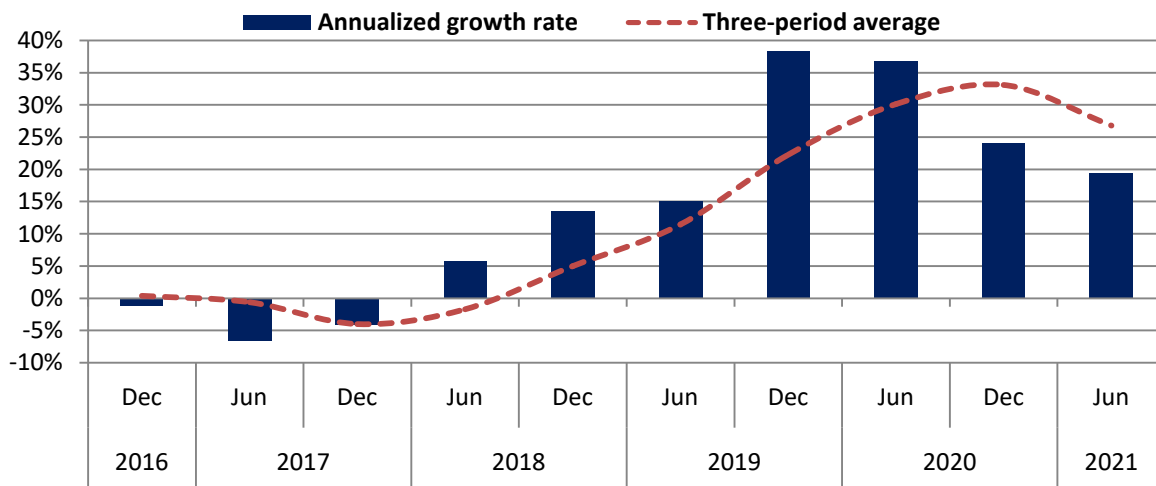
Source: DFIM, BB

Note: Ratio of non-performing loans and leases to total loans and leases. Data for June 2021 is provisional.

Gross NPL ratio of FIs increased slightly at end-June 2021 compared to that position of end-December 2020 and increased moderately from the position of end-June 2020.

6. Inter-linkages

6.1 Growth of banks' credit (gross) to government

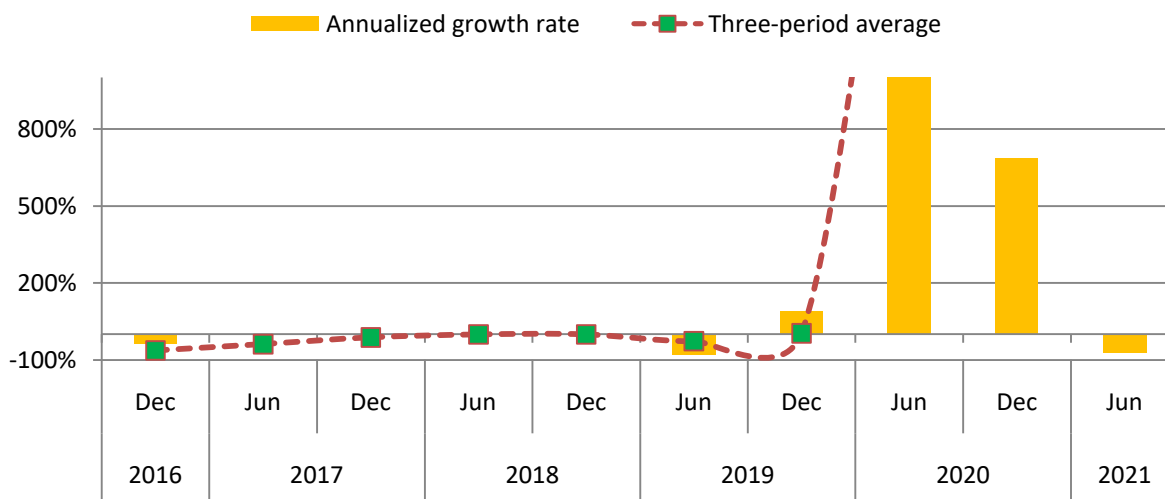


Source: Statistics Department, Bangladesh Bank.

Notes: Credit extended to the government refers to gross amount.

Government borrowings' growth rate from the banking sector registered a declining trend after end-December 2019. It decreased moderately at end-June 2021 compared to the previous period.

6.2 Growth of NBDCs' credit (gross) to government



Source: Statistics Department, Bangladesh Bank.

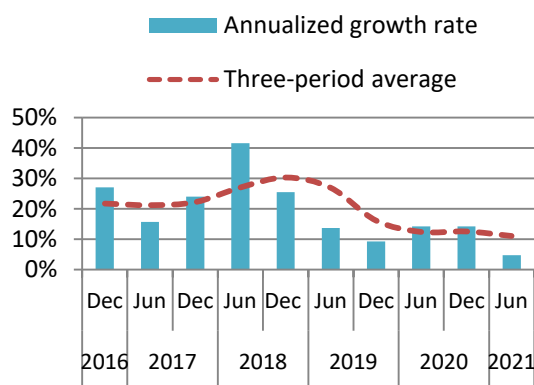
Notes: NBDCs include deposit taking FIs, Ansar-VDP Unnayan Bank, Karmasangsthan Bank, Grameen Bank and Bangladesh Samabaya Bank.

Government borrowings from the NBDCs, though remained very low compared to the same from the banking system, witnessed a negative growth at end-June 2021 compared to the preceding period.

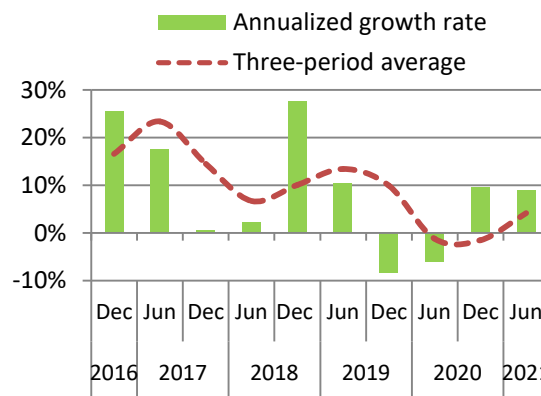
6. Inter-linkages– Cont'd.

6.3 Growth of banks' loans to housing sector

a. Loans to residential housing



b. Loans to commercial housing

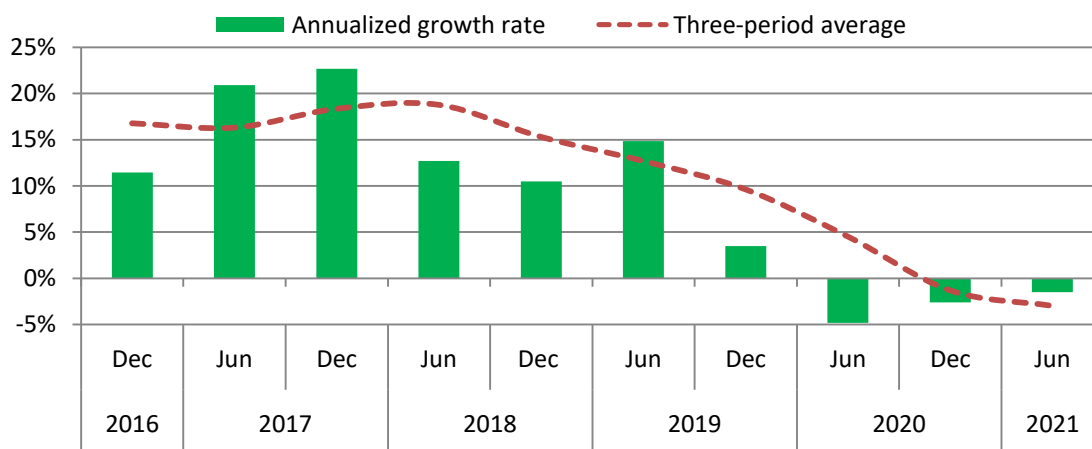


Source: Statistics Department, Bangladesh Bank.

Notes: Data for June 2021 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 recorded a considerable decrease in June 2021 compared to the preceding period. Loan growth in commercial housing sector, which remained volatile during the last couple of years, went slightly down in June 2021 compared to the preceding period.

6.4 Growth of FIs' loans to housing sector



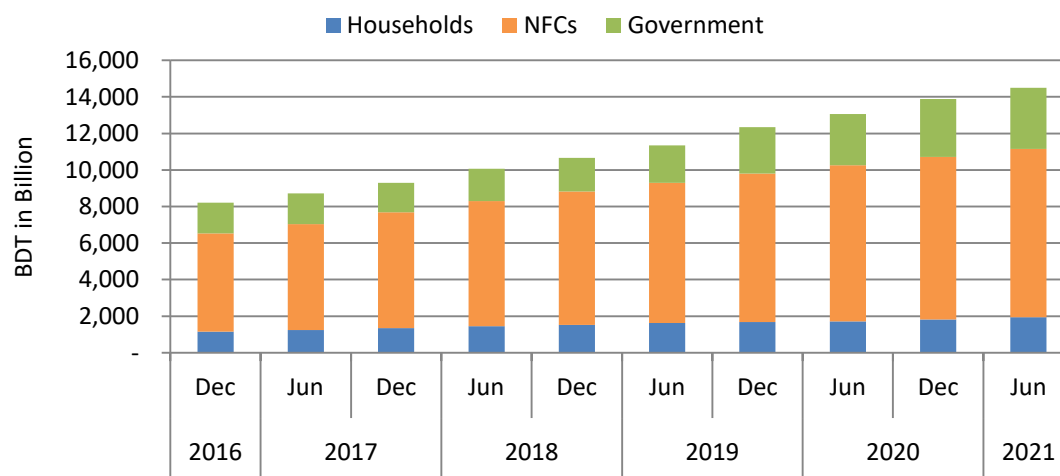
Source: DFIM, Bangladesh Bank.

Notes: Due to NBDCs' data unavailability, data of FIs were used which include both deposit takers and non-deposit takers. Data for June 2021 is provisional.

Growth of FIs' loans to housing sector was depicting negative values since the end-June 2020. The situation uplifted a bit during the first half of 2021, though still it was in negative territory.

6. Inter-linkages– Cont'd.

6.5 Banks' loans to counterpart sectors

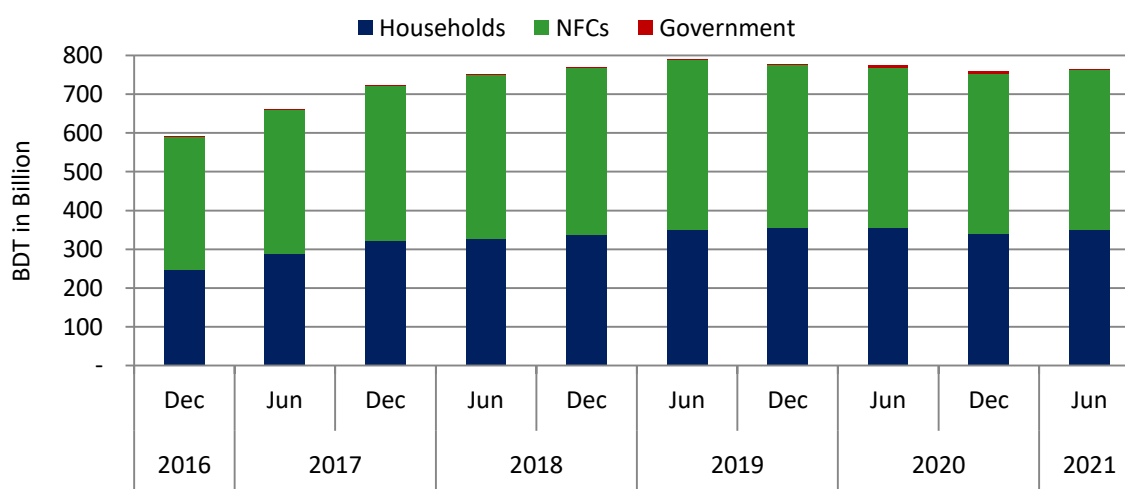


Source: Statistics Department, Bangladesh Bank.

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



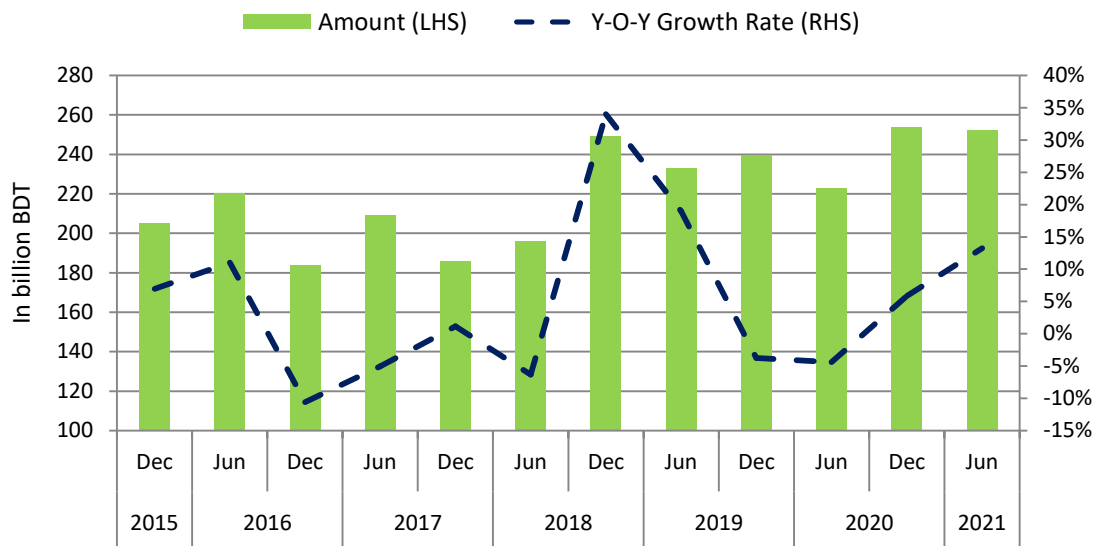
Source: Statistics Department, Bangladesh Bank.

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.

Increased exposure to NFCs and households led a total increase in NBDCs' loan portfolio at end-June 2021 compared to the preceding period in which the government borrowing remained negligible.

6. Inter-linkages– Cont'd.

6.7 Banks' cross-border claims



Source: Statistics Department, Bangladesh Bank.

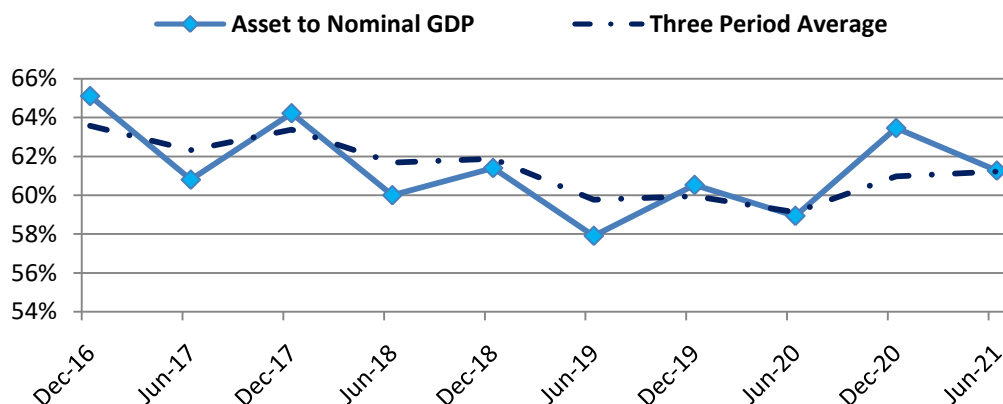
Notes: Cross-border claims include foreign currency notes in hand, balances with banks abroad, bilateral trade credits, wage earners' balance abroad, foreign bills, foreign direct investment, portfolio investment.

Banks' cross-border claims decreased marginally at end-June 2021 compared to that of end-December 2020 and notably remained low accounting for less than one percent of total assets of the banking sector.

7. Structural risk

7.1 Banking sector size

a. Domestic Banks

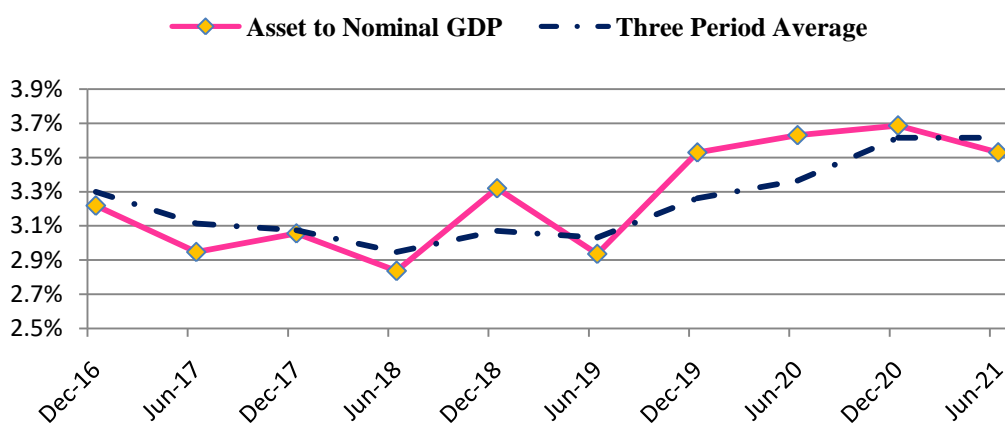


Source: DOS, BB and Monthly Economic Trends, BB; computation: FSD, BB.

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, fluctuating over time, decreased in June 2021 compared to the position of December 2020.

b. Foreign Banks



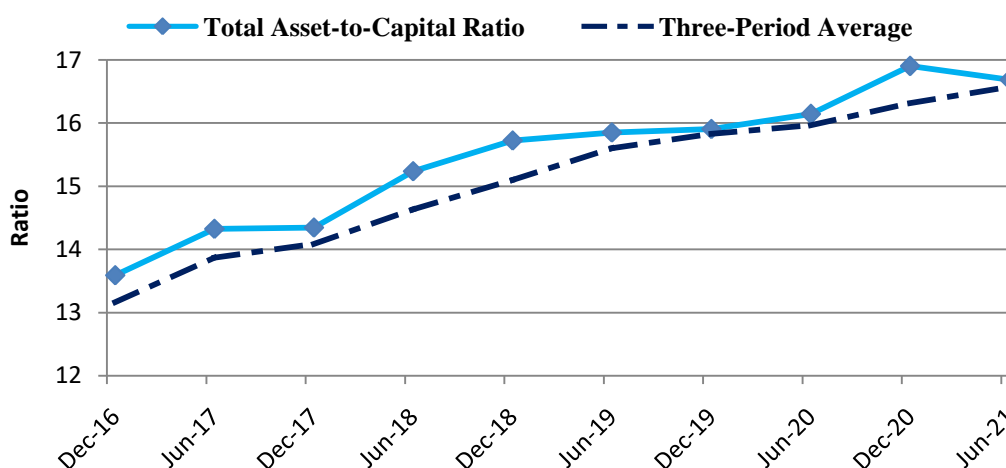
Source: DOS, BB and Monthly Economic Trends, BB; computation: FSD, BB.

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 decreased slightly in June 2021 compared to the position of December 2020.

7. Structural risk-cont'd.

7.2 Banking sector leverage



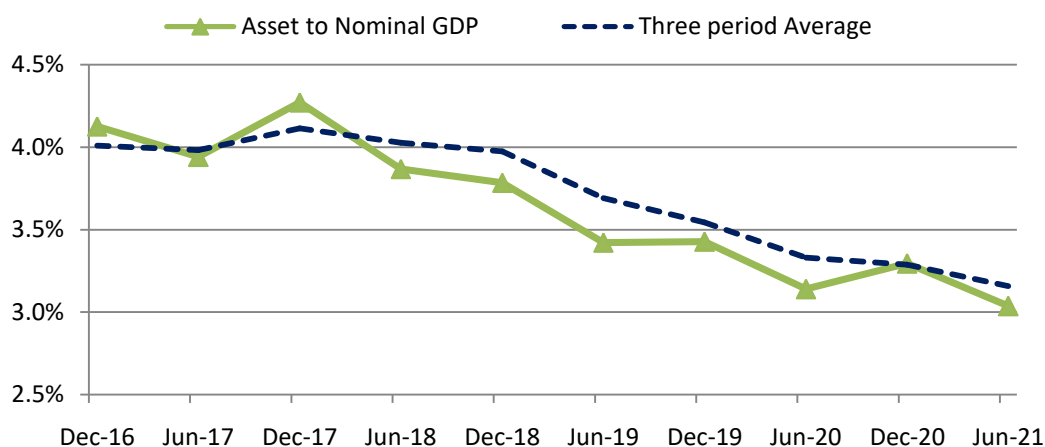
Source: DOS, BB; computation: FSD, BB.

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 asset- to-capital ratio continued its increasing trend up to December 2020. At the end-June 2021 it decreased slightly compared to the position of 2020.

7.3 Financial institutions (FIs) sector size

FIs' assets to nominal GDP



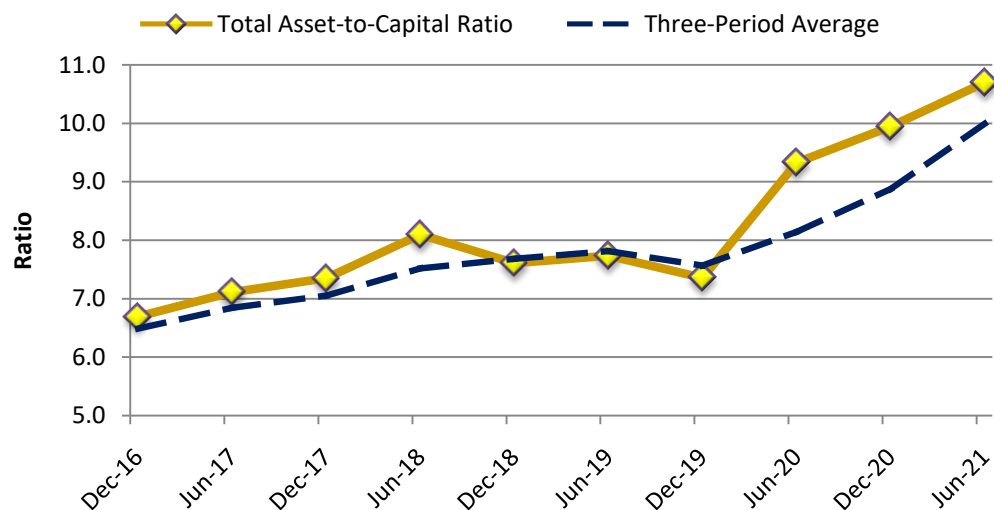
Source: Financial Institutions (for June, December 2020 and June 2021) and DFIM, BB (for earlier periods); computation: FSD, BB.

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.

Financial institutions' assets to nominal GDP decreased slightly in June 2021 compared to December 2020.

7. Structural risk-cont'd.

7.4 Financial institutions (FIs) sector leverage



Source: Financial Institutions (for June, December 2020 and June 2021) 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 asset- to-capital ratio showed an upward trend since December 2019.

Annex to Bangladesh Systemic Risk Dashboard

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, April, 2021.

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 (in BB website).

The aggregate debt as percentage of GDP represents the sum of the debt-to-GDP ratio of non-financial corporations (NFCs), 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 (in BB website).

Government debt includes both government's domestic debt and external debt. Average of three periods 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, Ministry of Finance, Government of Bangladesh.

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 have 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 private 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 private 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.

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, since 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 Banks' 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. Long-term debt includes government Treasury bond with a maturity of more than 12 months. 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 banks. 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 & Leisure and Miscellaneous along with 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 rate 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. Ratios of June period are annualized.

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 period and total assets. Ratios of June period are annualized.

c. Costtoincome 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 incometototal 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 Market, 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.

b. Return on assets (ROA)

Source: Department of Financial Institutions and Market, BB.

The indicator is based on ratio between profit/loss after tax and provision for the period and total assets at the end of the corresponding period.

c. Cost to income ratio

Source: Department of Financial Institutions and Markets, BB.

The indicator is based on the ratio between FIs' 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 FIs' 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 Growth of banks' credit (gross) to Government

Source: Statistics Department, Bangladesh Bank.

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

6.2 Growth of NBDCs' credit (gross) to Government

Source: Statistics Department, Bangladesh Bank.

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

6.3 Growth 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 Growth of FIs' loans to housing sector

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

It refers to the growth in 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

Source: Statistics Department, Bangladesh Bank.

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.

7. Structural risk:

7.1 Banking sector size

a. Domestic Banks

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 Banks

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 which in general called ‘total asset-to-capital ratio’ is based on the ratio of total assets of the banking sector over its capital.

7.3 FI sector size

Source: Financial Institutions (for June, December 2020 and June 2021) and DFIM, BB (for earlier periods); computation: FSD, BB.

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

7.4 FI sector leverage

Source: Financial Institutions (for June, December 2020 and June 2021) and DFIM, BB (for earlier periods); computation: FSD, BB.

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

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